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EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

29 CFR Part 1614

RIN 3046–AA74

Posting Requirements in Federal Sector Equal Employment Opportunity

AGENCY: Equal Employment Opportunity Commission.

ACTION: Interim final rule.

SUMMARY: The Equal Employment Opportunity Commission (EEOC) is issuing implementing rules under the No Fear Act regarding the posting of EEO complaint processing data. The rules tell Federal agencies what information to post, how to post it, and when to post it. EEOC wishes to emphasize that these are interim final rules and therefore subject to change based on the public comments EEOC receives.

DATES: This interim final rule is effective January 26, 2004. Comments must be submitted on or before March 26, 2004.

ADDRESSES: Written comments should be submitted to Frances M. Hart, Executive Officer, Executive Secretariat, Equal Employment Opportunity Commission, 1801 L Street, NW., Washington, DC 20507. As a convenience to commenters, the Executive Secretariat will accept comments of six pages or less transmitted by facsimile ("FAX") machine. The telephone number of the FAX receiver is (202) 663–4114. This is not a toll free number. The six-page limitation is necessary to assure access to the equipment. Receipt of FAX transmissions will not be acknowledged although a sender may request confirmation by calling the Executive Secretariat at (202) 663–4078 (voice) or (202) 663–4077 (TTY). These are not toll free numbers. Copies of comments submitted by the public will be available for review at the Commission's library, room 6502, 1801 L Street NW., Washington, DC between the hours of 9:30 a.m. and 5 p.m.

FOR FURTHER INFORMATION CONTACT: Thomas J. Schlageter, Assistant Legal Counsel, Gary John Hozempa, Senior General Attorney or Mona Papillon, Senior General Attorney at (202) 663–4669 (voice) or (202) 663–7026 (TTY). Copies of this interim final rule are also available in the following alternate formats: Large print, braille, audiotape and electronic file on computer disk. Requests for this notice in an alternative format should be made to EEOC's Publication Center at 1–800–669–3362.

SUPPLEMENTARY INFORMATION:

Introduction

EEOC is issuing rules to implement the posting requirements set forth in Title III of the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (the No Fear Act), Pub. L. 107–174. Pursuant to the No Fear Act, a federal agency must post on its public Web site summary statistical data pertaining to complaints of employment discrimination filed by employees, former employees and applicants for employment under 29 CFR part 1614 (*i.e.*, individual complaints, class complaints, and mixed-case complaints—but not mixed-case appeals that are filed with the U.S. Merit Systems Protection Board or grievances raising claims of employment discrimination filed under collective bargaining agreements). Title III authorizes EEOC to issue rules concerning the "time, form and manner" of the postings, to define the terms "issue" and "basis," and to issue any other "rules necessary to carry out" Title III.

Section 301 of the No Fear Act specifically sets forth the "summary statistical data" that each agency must post. It requires an agency to post quarterly year-to-date cumulative statistical data for the then current fiscal year. An agency also must post year end data for the five previous fiscal years or, if not available for all five fiscal years, the required data to the extent available for those five fiscal years. In addition, under section 302 of the No Fear Act, EEOC must post fiscal year data pertaining to requests for hearings before an EEOC administrative judge (AJ) and appeals filed with EEOC. The data EEOC must post regarding hearings and appeals corresponds to that which agencies are required to post under section 301. The interim rule uses the same categories for posting hearings and appeals data that agencies will be using for complaint processing to the extent those categories are applicable to hearings and appeals.

The interim rule requires an agency to post its data in two computer-readable formats, PDF and one text format that complies with section 508 of the Rehabilitation Act. A link to an agency's No Fear Act data also must be prominently displayed on the agency's home Web page.

Congress has directed the time periods for which complaint data must be captured, and the interim rule tracks these time frames. Additionally, because Congress requires agencies to post the average length of time to process complaints "for each step of the process," EEOC has set forth definitions delineating the major steps of the complaint process under 29 CFR part 1614. Lastly, Congress wants agencies to list the number of complaints by basis and issue, so EEOC has defined these terms.

In promulgating this interim rule, EEOC has been cognizant of the fact that agencies already report to EEOC some of the data they are required to post under the No Fear Act. Every executive branch agency must submit to EEOC an "Annual Federal Equal Employment Opportunity Statistical Report of Discrimination Complaints," otherwise known as EEOC Form 462. Wherever possible, EEOC has attempted to conform an agency's posting requirements under the Act with the agency's Form 462 reporting obligations. In the event of future changes to Form 462 reporting requirements, the Commission will examine whether such changes are relevant to the posting requirements under the Act.

The posting of EEO data on agency public Web sites is intended to assist Congress, Federal agencies and the public to assess whether and the extent to which agencies are living up to their equal employment opportunity responsibilities. Currently, EEO data, such as that reported on the Form 462, is reported to Congress by EEOC and is available from EEOC or can be viewed on EEOC's public Web site. Congress

concluded, however, that by having each agency post its own EEO data on its public Web site, thereby more widely disseminating the data, Congress, agencies, and the public would be better able to see how many EEO complaints are filed at a particular agency, how many are filed government wide, what the complaints are about, and what becomes of the complaints. Moreover, it was determined that agency managers and employees would have easier access to the data if it was posted on the agency's public Web page. At the least, posting EEO data on its own Web page should better enable agency personnel to identify and understand the nature and scope of conflicts involving employment discrimination within that agency, thereby affording all agencies another tool in correcting any EEO problems that may exist.

Executive Order 12067

Pursuant to Executive Order 12067, EEOC circulated a draft of this interim final rule to the heads of all federal executive branch agencies. Twenty-four (24) agencies offered comments. The Commission carefully considered all of the comments it received and incorporated a number of the suggestions. Many of the comments suggested ways in which to make the posting requirements clearer. For example, a number of agencies expressed concern that the requirement that an agency post the number of complaints in which an investigation is not timely completed (§ 1614.704(l)) did not allow for authorized extensions of the normal 180-day period. The Commission has clarified this section to make it clear that a complaint is timely investigated if completed within 180 days plus any valid extensions.

A few agencies opposed EEOC's proposal that an agency revise its data where issues and bases are added to the initial allegations, on the grounds that it would be difficult to do. Some also suggested that if agencies must post the bases and issues that subsequently are added to complaints, withdrawn issues and bases should be accounted for as well. EEOC has decided to eliminate the requirement that agencies post the issues and bases added by amendment. A few agencies pointed out that not all agencies accept EEO complaints that are filed via email or facsimile. EEOC has eliminated this language. A number of agencies questioned EEOC's proposal to identify counseling as a step of the complaint process, noting that not all counseling contacts result in a formal complaint and that the No Fear Act requires posting only with respect to complaints. EEOC has decided to eliminate counseling as a defined step in the complaint process.

In a few places, EEOC's initial approach in implementing a particular posting requirement was discarded because one or more agencies suggested a better means of accomplishing the same result. For example, in the initial draft, the Commission proposed that agencies post both aggregate agency-wide data and separate data for their respective subelements. The proposed regulation then went on to list the affected subelements. A number of agencies pointed out that EEOC's list was incomplete and that subelements can be subsequently created, merged, or disbanded, thus making the list potentially obsolete. It was suggested that a subelement be defined based on the number of employees working at the subelement and that only those agencies with subelements employing a threshold number of employees be required to post subelement data. EEOC has adopted this approach. A question arose whether subelements must post No Fear Act data on their public Web sites. EEOC has decided not to mandate that subelements post their own data because EEOC does not know if every subelement as defined by the interim rule has a public Web site. Those which do have a public Web site are required to have a hyperlink to the parent agency's posting of the subelement's data.

Other parts of the proposed rule were not changed based on the comments. EEOC did not eliminate the requirement that agencies post data on dismissals. A few agencies argued that the No Fear Act does not require agencies to post this information. EEOC believes that agency dismissals represent a significant aspect of the EEO complaint process and that the value in capturing this information outweighs the minimal effort it will take to track and post this data. Agencies currently are required to report dismissals to the EEOC on Form 462. At the suggestion of a few agencies, EEOC revised this section of the rule to make it clear that it does not apply to partial dismissals.

In a similar vein, a few agencies requested that the final rule allow agencies to post data which they deem will present a more complete view of the EEO process but which is not required to be posted by the No Fear Act. The kind of data agencies would like to post include the number of complaints in which no discrimination is found, the number of complaints that are resolved through an agency's ADR program, the number that are settled by other means, and the number that are withdrawn. Some agencies want to post data regarding the number of AJ findings of discrimination that are reversed on appeal, and the number of findings of no discrimination that are reversed on appeal. The Commission concludes that too many additional categories will detract from those required to be posted under the Act. Therefore, EEOC has not added any additional categories. Agencies, of course, are free to post whatever EEO data they desire on their public Web sites so long as it does not appear with their No Fear Act data. Agencies may insert a hyperlink to this additional data on the page on which the No Fear Act data appears.

A handful of agencies suggested EEOC eliminate the "non-EEO basis" category under "bases of discrimination" because a complaint that raises a non-EEO basis does not constitute an EEO complaint. Therefore, they argued, such "complaints" need not be tracked for purposes of the No Fear Act. Even a complaint that fails to state a claim or raises a basis that is not covered by the EEO statutes, however, must be processed by an agency, even if that means the complaint is immediately dismissed. Moreover, EEOC believes it will be helpful to see how many complaints that are filed under the 29 CFR part 1614 procedures do not raise the requisite jurisdictional basis. Accordingly. EEOC has decided to keep the "non-EEO basis" category.

One agency objected to the requirement that a hyperlink to the No Fear Act data be posted prominently on the agency's Web site homepage. This agency argues that a hyperlink is not explicitly required by the statute. While true, EEOC believes the hyperlink requirement falls well within the "time, form, and manner" authority given to EEOC under the Act. Additionally, given the fact that the No Fear Act data is one of only a few categories of information which Congress has decreed be posted by all executive branch agencies on their public Web sites, it simply makes sense that members of the public be able to access this data as easily as possible.

Some other suggested changes were not made because they were based on a misreading of the draft regulations. In those instances, EEOC has clarified the regulations and preamble to address the misunderstood language. A number of agencies, for example, expressed the concern that agencies would be held accountable for the time a complaint is with an EEOC AJ. However, EEOC, and not the agencies, is required to post hearing data.

A number of agencies requested that EEOC mandate a uniform format for

posting. While EEOC considered mandating the format and layout that all agencies would adhere to so that one agency's posted data would be indistinguishable from another's in terms of look and feel, EEOC did not initially propose such an approach because it was reluctant to impose unilaterally a standardized posting design or format. As a result of the agency comments, EEOC will revisit this issue, but will do so during the public comment period. It is the obligation of agencies covered by the Act to begin posting data at the conclusion of the first quarter of fiscal year 2004.

Form and Manner of Data

EEOC believes that some uniformity in how data is posted is necessary in order to make each agency's data easily accessible to the public. Interim rule 29 CFR 1614.703 therefore specifies that the data must be posted in two formats: Portable Document Format (PDF); and an accessible text format of the agency's choosing that complies with the agency's obligation under section 508 of the Rehabilitation Act.

The interim rule requires each agency to prominently post on its primary Web homepage a link to the data required to be posted under the Act and designate the link and that data as "Equal Employment Opportunity Data Posted Pursuant to the No Fear Act." This is to make finding and then viewing the data as easy as possible, with a minimum of navigation clicks or jumps. An agency also must prominently post the date its data was last updated.

EEOC believes that posted data will be more meaningful and useful if, in addition to showing agency-wide statistics, certain large agencies show how each subelement of the particular agency is performing. Given that many agency subelements employ more employees than are employed by entire agencies, EEOC believes it simply makes good sense to see how each subelement is complying with the EEO laws, especially when compared to the parent agency. Therefore, an agency containing subelements as defined in section 1614.702(l) must post both agency-wide aggregate data and subelement-specific data.

Data To Be Posted

Number of complaints. No Fear requires an agency to post the number of EEO complaints filed with it under 29 CFR part 1614 in a given fiscal year. If the same individual files four separate complaints, they should be counted as four complaints. Even if complaints later are consolidated for processing, they should still be counted as separate complaints for purposes of this posting requirement.

Number of filers. Under section 1614.704(b), an agency must post the number of individuals who file complaints with the agency in a given fiscal year. Where the same individual files multiple complaints, the agency counts the complainant only once under this section. For example, if the same person files five complaints in a given fiscal year, the agency will count five complaints as having been filed, but only one filer.

If a class complaint is filed, the agency shall treat the class agent as the filer. If the class complaint has multiple class agents, they should all be considered filers. An agency should not post the total number of class members involved in a class complaint.

Number of repeat filers. The No Fear Act requires an agency to post the number of individuals who file multiple complaints during a fiscal year. By "multiple" section 1614.704(c) means more than one. If a single individual files two or more complaints during the fiscal year, then that person is counted once as a repeat filer regardless of how many complaints he or she files. If a person files an individual complaint and is a class agent for a separate class complaint during the reporting period, then that person is counted as a repeat, or multiple, filer. This same person also is to be counted as a filer under section 1614.704(b).

The basis of a complaint. Each agency must post the number of complaints in which each of the various bases of discrimination is alleged. The basis of the complaint is the discriminatory factor asserted by the complainant that is protected by the statute under which the complaint is filed. The bases protected by the EEO statutes are race, color, religion, national origin, sex, disability, age, and retaliation (for participating in the EEO complaint process or for opposing practices made illegal under the EEO laws). A complaint brought under the Equal Pay Act is considered to be a complaint on the basis of sex. To the extent any other "basis" is alleged (*e.g.*, marital status, parental status, union membership), the interim rule contemplates that such basis will be listed in a "non–EEO basis" category.

We are including a "non–EEO basis" category as a catch-all in order to cause agencies to post the number of complaints in which a basis not covered by the EEO statutes is alleged. In this way, persons viewing an agency's complaint statistics will not have to wonder whether they contain discrepant numbers. For example, if an agency posts that ten complaints were filed and then posts that only eight complaints raised race as a basis (because the remaining two complaints raised non–EEO bases), a viewer might well wonder whether the agency neglected to note the bases alleged in those two complaints. Having the agency post that two complaints raised a "non–EEO basis" fills in that gap.

Where multiple EEO bases are alleged, the agency must post data showing that a complaint was filed on each basis. Thus, if a complainant alleges discrimination based on race and national origin, the agency is to count that complaint as one filed based on race and one filed based on national origin. Consequently, if one complaint is filed based on sex and age, a second complaint is filed based on race, sex and age, and a third complaint is based on national origin, disability and sex, the required (and correct) posting would be that for the basis of race one complaint was filed, for the basis of disability one complaint was filed, for the basis of national origin one complaint was filed, for the basis of age two complaints were filed, and for the basis of sex three complaints were filed.

The issue raised in a complaint. Each agency must post the number of complaints in which each of the various issues of alleged discrimination is alleged. The issue of a complaint is the matter about which the individual is complaining. The issue sets forth the alleged discriminatory incident for which the individual seeks redress.

As with bases of discrimination, the agency must list each issue that is raised and the number of complaints that raised that issue. Thus, if a complainant alleges in a single complaint that he was denied training and not promoted, the agency should count this as one complaint on the issue of training and one complaint on the issue of promotion/non-selection.

Unlike bases of discrimination, the number and types of potential issues are not finite. Therefore, defining an issue will not always be as exact as defining a basis. This is because the same issue can be described in different ways. When a complainant alleges she was discriminated against because she is female, there is no dispute that the alleged basis is sex. On the other hand, if an individual files a complaint challenging her nonselection for a promotion, the issue could be described in a number of ways, including "promotion," "nonpromotion," "non-selection," "failure to be promoted," or "not selected for a promotion."

Consequently, in order to avoid the confusion that can result from varying

descriptions of the same issue, and to make the posted data as uniform as possible, EEOC is providing a list of issues most commonly raised in complaints. This list of issues contains the same issues currently used by agencies in reporting statistics to EEOC on EEOC Standard Form 462. Agencies must choose an issue from this list when posting the type of issue that is alleged. A list of the issues appears on page 2 of Form 462 and the specific issues are included in the definition of "issue" in the regulation. An "other" category will capture all issues not listed on Form 462. Unlike Form 462, however, where an agency must describe the "other" issue, here the agency merely will note the number of complaints that raise issues not listed on Form 462.

Amendments or changes made to a complaint. With respect to the posting of bases and issues pursuant to sections 1614.704(d) and (e), an agency must list all bases and issues initially raised regardless of whether a complainant subsequently adds or withdraws, or an agency declines to accept, a basis or issue. This is to ensure that a complete picture is presented as to the matters that are being raised initially in filed complaints. Bases or issues that are added by amendment are not to be posted.

Processing time. The No Fear Act requires an agency to post the average length of time it takes an agency to complete "each step of the process" for every complaint that is pending during any time of the then fiscal year. The interim rule tracks this requirement. If a complaint is pending at any time during the fiscal year for which data is being posted, the agency must post processing time data for each step even if the complaint was filed in a prior fiscal year and even if any discrete step commenced or ended in a prior fiscal year. Example 1. A complaint is filed on July 1, 2003 (fiscal year 2003), the investigation concludes on March 1, 2004, the complainant requests an immediate final decision on March 2, and the agency issues a final decision on June 1, 2004. In posting its fiscal year 2004 data, the agency will have to factor into its average processing times the fact that this complaint was pending at the investigative stage for 8 months and at the final action stage for 3 months. Example 2. A complaint is filed on March 1, 2003, the investigation is completed on September 1, 2003, the complainant requests an immediate final decision on September 29, 2003, and the agency issues a final decision on November 30, 2003 (fiscal year 2004). In posting its fiscal year 2004 data, the agency will have to factor into its average processing times the fact that this complaint was pending at the investigative stage for 6 months and at the final action stage for 2 months. Example 3. A complaint is filed on September 1, 2003, the investigation is completed on February 1, 2004, the complainant requests a hearing on February 15, 2004, the AJ issues a decision on September 1, 2004, and the agency issues its final order on October 5, 2004 (fiscal year 2005). In posting its fiscal year 2004 data, the agency will have to factor into its average processing times the fact that this complaint was pending at the investigative stage for 5 months. Since final action did not occur in FY 2004, average processing time for final action by the agency would not be factored into FY 2004 data. The processing time for the final action step of this complaint along with the time for completion of the investigation will be factored into the agency's fiscal year 2005 average processing time data.

The Act requires an agency to post average processing times under three categories: All complaints pending during the fiscal year; complaints in which a hearing is not requested; and complaints in which a hearing is requested. Using examples 1 and 2, above, the agency must use the time it took to investigate the complaint and issue its final decision in calculating average processing times when it reports those times for both "all complaints" and "complaints for which a hearing was not requested." Using Example 3, above, the agency must use the time it took to investigate the complaint in calculating average processing times when it reports that time for both "all complaints" and "complaints for which a hearing was requested." The operative word here is "requested." Regardless of whether a hearing is actually held, the agency is to report processing times based on whether a request for a hearing was made.

The Act does not define the phrase "each step of the process." Consequently, EEOC has defined those steps pursuant to its rulemaking authority under the Act. The interim rule divides the EEO complaint process into four steps: Investigation; hearing; final action by an agency after an investigation or hearing; and appeal. Under section 1614.704, an agency must report, for the then fiscal year, the average time it takes to complete two of these steps: Investigations; and final actions by an agency after an investigation or hearing. The precise time when each of these steps begins and ends is part of the definition of the respective steps. It is contemplated, therefore, that the steps as defined by their beginning and ending times will control for posting purposes under the Act regardless of when an agency may deem a step to begin or end for its own internal purposes. This means, of course, that an agency will have to track its processing times according to the definitions set forth in the interim rule if it does not do so already. When reporting processing times for final actions by an agency, the definition of final action by an agency contained in section 1614.702(g) ensures that an agency will not be charged for the time in which a complaint is with an administrative judge.

Another aspect of the EEO complaint process which is not actually a "step of the process" is when an agency dismisses a complaint pursuant to 29 CFR 1614.107(a). These dismissals constitute an important aspect in the processing time of complaints. The interim rule therefore requires an agency to post for the fiscal year the number of complaints that are dismissed pursuant to 29 CFR 1614.107(a) and the average length of time such complaints were pending at the time of dismissal.

Dismissals pursuant to § 1614.107(a) are dismissals of the "entire complaint." These are the only dismissals section 1614.704(g) seeks to track. Where an agency follows the procedure outlined in 29 CFR 1614.107(b) (declining to investigate some claims in a complaint which the agency believes should be dismissed), there is not a dismissal of the entire complaint and so these complaints would not be reported under section 1614.704(g). Similarly, dismissals by an administrative judge pursuant to 29 CFR 1614.109(b) are not dismissals by the agency and therefore are not the types of dismissals contemplated by section 1614.704(g).

Final actions by an agency involving discrimination: The No Fear Act requires an agency to post for the then fiscal year the total number of final actions by an agency involving a finding of discrimination. EEOC interprets this to mean that an agency must post the total number of complaints in which the agency's final action addresses a finding of discrimination whether that finding is rendered by the agency or an administrative judge. Even if an agency issues a final order informing a complainant that it will not implement an administrative judge's finding of discrimination, the agency's final action "involves" a finding of discrimination and therefore must be listed as a final action by an agency involving discrimination.

Of the total number of final actions by an agency involving discrimination, the Act requires an agency to post the number and percentage that pertain to findings of discrimination "rendered without a hearing" and the number and percentage having to do with findings of discrimination after a hearing has been held.

It is clear that final action is taken without a hearing when a complainant requests an agency decision without a hearing, or fails to request a hearing within the requisite time period. It is also clear that final action is taken without a hearing when the complainant requests a hearing and subsequently withdraws that request, or events occur which cause the administrative judge to cancel the hearing without issuing a decision. Thus, if a hearing is requested and then cancelled, or the complainant withdraws the hearing request and the agency ultimately issues a finding of discrimination, the finding would be noted in the subcategory pertaining to a decision without a hearing.

In those cases in which a hearing is held and an agency final order informs the complainant that the agency will or will not implement the finding of discrimination issued by an administrative judge, this will be deemed to constitute an agency final action involving a finding of discrimination "after a hearing" for posting purposes.

There also are instances when a hearing is requested but the administrative judge renders a decision without holding a hearing. Under the federal sector complaint processing procedures, an administrative judge can issue a decision without a hearing pursuant to 29 CFR 1614.109(f)(3)(iv) (sometimes referred to as an adverse inference finding) or section 1614.109(g) (sometimes referred to as a summary judgement decision). The interim rule envisions that any agency final order that informs the complainant that the agency will or will not implement a finding of discrimination issued by an administrative judge, regardless of what proceeded the administrative judge's decision, will be deemed to constitute an agency final action involving a finding of discrimination "after a hearing" for posting purposes. Thus, the form of the administrative judge's decision is irrelevant, as is whether a hearing actually took place. An agency's implementation or appeal of an administrative judge's finding of discrimination, including a bench decision or a finding issued without a hearing pursuant to 29 CFR 1614.109(f)(3)(iv) or (g), is to be reported under the subcategory pertaining to a finding of discrimination after a hearing. EEOC adopts this position because we believe it most closely adheres to the intent of Congress, which is to track how often an agency chooses to implement or not implement a finding of discrimination rendered by an administrative judge.

Findings of discrimination sorted by basis and whether there was a hearing. In posting the total number of final actions by an agency in which a finding of discrimination is made during a fiscal year, the No Fear Act requires an agency to post the number and percentage of such findings according to the basis on which discrimination was found. The Act requires an agency to further subdivide such data and post the total number and percentage of such findings of discrimination based on the type of discrimination that is found according to whether a hearing was held. The interim rule tracks these requirements. For purposes of this posting requirement, the identification of bases and whether a hearing was held will be governed by the same factors noted in the discussions above concerning postings by basis and postings by findings of discrimination.

With respect to posting findings of discrimination according to basis, what is determinative is the basis on which the finding of discrimination is made. This usually will be the same as the basis initially alleged in the complaint, but not always. If a person alleges multiple bases of discrimination, such as race, sex and retaliation, and the agency or administrative judge finds that the complainant was discriminated against solely because she had engaged in prior EEO activity, the agency will post information reflecting that it rendered a finding of retaliation.

Findings of discrimination sorted by issue and whether there was a hearing. In posting the total number of final actions by an agency in which a finding of discrimination is made during a fiscal year, the No Fear Act requires an agency to post the number and percentage of such findings according to the issue on which the complainant prevailed. The Act requires an agency to further subdivide such data and post the total number and percentage of such findings of discrimination sorted by issue according to whether a hearing was held. The interim rule tracks this requirement. For purposes of this posting requirement, the identification of issues and whether a hearing was held will be governed by the same factors noted in the discussions above concerning postings by issue and postings by findings of discrimination. The data posted under this subsection of the interim rule will be characterized based on what action or actions the agency found to be discriminatory, regardless of what was initially challenged in the complaint.

Number of pending complaints that were filed in prior fiscal years. The No Fear Act specifies that an agency must look at all complaints pending in a current fiscal year and post the number that were filed before the start of that fiscal year. The interim rule tracks this requirement. EEOC interprets the requirement as applying to all pending complaints filed in a prior fiscal year, regardless of how long ago a complaint was filed. Thus, if a complaint filed 15 years earlier is still pending, the agency must count this complaint when posting the amount of pending complaints that were filed in prior fiscal years.

"Filed" is to be given its generally accepted meaning. Thus, a complaint is deemed filed on the date it is postmarked. If there is no postmark or the complaint is hand-delivered, the complaint is deemed filed on the date it is received by the agency. *See* 29 CFR 1614.604(b). An agency is to use these filing dates in ascertaining which complaints were filed before the start of the current fiscal year.

The Act further requires an agency to post the number of individuals who filed the complaints that were filed before the start of the current fiscal year. This number is to be based on the original number of persons who filed the complaints.

The Act requires that, of the complaints that were filed prior to the current fiscal year and are still pending, the agency shall specify how many of the complaints are at each specific processing step. The interim rule requires an agency to account for all prior fiscal year complaints including those pending at the hearings and appeals processing steps. The interim rule contemplates that the step at which a prior fiscal year complaint is pending shall be based on its status as of the end of the applicable reporting quarter.

Finally, the Act requires, as a general rule, that an agency look at all complaints pending in the current fiscal year, determine how many of the complaints were not timely investigated, and post that total number of complaints. As set forth in section 1614.702(c), the investigative step is deemed to commence on the date the complaint is filed. This is consistent with 29 CFR 1614.106(e)(2), specifically cited in the Act, which requires that the investigation be completed within 180 days of the date the complaint is filed, with certain exceptions (*e.g.*, the parties

can agree in writing to extend the time period).

In this regard, section 301(b)(10)(C) of the No Fear Act couches this posting requirement in terms of how often "the agency violated the requirements of section 1614.106(e)(2)." This is significant in that, under 29 CFR 1614.106(e)(2) and 1614.108(e), the 180 day time period in which a complaint normally must be investigated can be extended by mutual written agreement between the parties for a period not exceeding 90 days and is automatically extended when a complaint is amended or a file needs to be sanitized because it contains classified information pursuant to Executive Order No. 12356, or successor orders. The Commission interprets this section of the Act as requiring an agency to post data only when an agency completes an investigation beyond 180 days plus any authorized extensions, including those contained in section 1614.108(e).

Thus, for example, where the parties mutually agree on the 179th day to extend the investigation another 90 days and the investigation is completed on the 260th day, the agency will not have to list this complaint as not having been timely investigated. If, on the other hand, the investigation is not completed until the 275th day, the agency will have to report that the complaint was not investigated in a timely manner since the investigative period exceeded 180 days plus the 90 day extension (*i.e.*, the investigation was completed beyond the allowable 270 days).

Types of Complaints Covered. As noted in the "Introduction" above, the posting requirement applies to all complaints filed with an agency under Part 1614. This includes individual complaints, class complaints and mixed-case complaints but not mixed-case appeals or grievances. While all complaints are covered under No Fear, not all the posting categories apply to all complaints (*e.g.*, mixed-case complaints). Posting data for class complaints and mixed-case complaints will, therefore, present some difficulty regarding some of the categories because of the different procedures that apply to them. For class complaints, agencies do not investigate the class complaint and class agents do not request hearings. For mixed-case complaints, the time limits for investigation (120 days) and decision (45 days) are different and complainants do not request or have hearings before an EEOC administrative judge. Thus, some adjustments will have to be made when posting data. Agencies shall post data on all individual, class and mixed-case complaints except as follows: (1) agencies should not include data on class complaints for sections 1614.704(f)(2), (f)(3), and the part of (f)(1) requiring data on complaints pending at the investigation step; and (2) agencies should not include data on mixed-case complaints for sections 1614.704(f)(2), (f)(3), (h)(2), (h)(3), (i)(2), (i)(3), (j)(2), (j)(3), and (k)(3).

Timing of Posting Data

When posting data for a current fiscal year, the No Fear Act requires an agency to post on a year-to-date basis, updated quarterly. When posting data for prior years, the Act requires an agency to post on a fiscal year basis. These requirements are reflected in section 1614.703(e). Using fiscal year 2004 as an example, the agency's first posting of data will occur within thirty (30) calendar days of December 31, 2003 (the end of the first quarter). That posting must then be updated to reflect all pertinent data through March 31, 2004 (the end of the second quarter), no later than 30 calendar days after March 31. Another update will occur at the end of the third quarter. Within 30 calendar days of the end of fiscal year 2004, the agency shall post its final fiscal year data. This pattern then continues for each subsequent fiscal year. In updating current fiscal year data on a quarterly basis, the agency should not post separate data for each relevant quarter. Rather, an agency must post only one set of cumulative data that has been updated quarterly.

In addition to posting current fiscal year data, updated quarterly, the No Fear Act requires an agency to maintain on its Web site year-end data for each of the five immediately preceding fiscal years. Taking fiscal year 2004 as an example, this means that in February 2004, the agency's Web site will contain year-end data for fiscal years 1999, 2000, 2001, 2002, and 2003, as well as first quarter interim year-to-date data for fiscal year 2004. In subsequent years, when first quarter data for a new fiscal year is posted, the fiscal year comparison data that is more than six (6) years old will be dropped, *i.e.*, when first quarter 2005 data is posted, the year-end totals for 2004 will become the most recent comparison year-end data and the 1999 year-end data will be omitted. If an agency does not have data for one or more of the preceding five fiscal years, the Act requires that the agency post whatever data it has available for any of those five years. The year-end data that is to be posted for past fiscal years is to be in the same form and manner as current fiscal year data and contain the same categories of information with corresponding content. With respect to those agencies containing subelements as defined in section 1614.702(l), the parent agency shall post both agency-wide aggregate past fiscal year data as well as subelement-specific past fiscal year data.

Additional Information To Be Posted by EEOC

Pursuant to the Act, EEOC is required to post government-wide statistical data on hearings and appeals in addition to the data EEOC must post as an employing agency on the complaints filed against it. This additional information is of the same type, consists of the same categories, and will have the same time requirements, as that posted by an employing agency concerning complaints that are filed with that agency, except that the additional data EEOC posts will reflect information about requests for hearings and appeals filed with EEOC. Sections 1614.706(a) and (b) on hearings and appeals track the Act's posting requirements on complaints as closely as possible. The posting of this data is intended to give a viewer an instant government-wide view of the number of hearings requested and appeals filed, what issues and bases are raised, the average processing times for each step, and how often discrimination is found at each step.

EEOC will not take the data that is posted by all agencies under the interim rule, aggregate the data, and then post that data on EEOC's Web site under a heading such as "Government-Wide EEO Complaint Data for Fiscal Year 200X." EEOC's only posting obligations under the No Fear Act are two: like any other executive branch agency, EEOC must post EEO complaint data pertaining to internal EEO complaints filed with EEOC; EEOC also must post government-wide aggregate summary statistical data, but only under two categories: hearing requests; and appeals filed.

Regulatory Procedures

Executive Order 12866

Pursuant to Executive Order 12866, EEOC has coordinated this final interim rule with the Office of Management and Budget. Under section 3(f)(1) of Executive Order 12866, EEOC has determined that the regulation will not have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State or local tribal governments or communities.

The posting requirements contained in Title III of The No Fear Act apply only to Federal executive agencies, the United States Postal Service, and the Postal Rate Commission. All of these agencies, including EEOC, are required by the No Fear Act to post statistical data on their public Web sites pertaining to EEO complaints filed with them. In addition, EEOC has to post government-wide data pertaining to requests for EEO hearings and appeals of EEO complaints.

Much of the information that will be used as source material to post the statistical data required by Title III already is collected and maintained by the agencies in connection with their pre-existing reporting obligations. All affected agencies currently maintain public Web sites. Consequently, the Congressional Budget Office estimated that the total cost for all agencies to comply with No Fear's posting requirements will not exceed $5 million annually. House Rept. 107–101 part 1, June 14, 2001, p 11–12. Also, according to the CBO, it will cost EEOC $500,000 annually to post the additional government-wide data required by § 302. Id. Thus, the total cost of Title III of No Fear should be less than $5.5 million annually.

The benefits of posting EEO data will flow not just to the federal agencies but to the public. An agency will be able to compare its EEO program statistics against prior quarters and years to determine if there are trends that need to be addressed or whether progress is being made. An agency can also compare its statistics against those of other agencies. Both types of analyses should be useful to the agency in monitoring its own compliance with 29 CFR part 1614 and ensuring equal opportunity in the agency's employment programs. Public posting will ensure that members of the public will have access to this information and will be able to make independent assessments of agencies' compliance and progress. Agency employees will be able to assess the degree to which their agency provides equal employment opportunity. Likewise, potential job applicants will be able to judge the relative desirability of each agency's working environment. The public display of this information should provide agencies with added incentives to improve their EEO programs and to prevent discrimination proactively so that they can demonstrate that they are true equal employment opportunity employers. Increased monitoring and improved compliance through public posting of EEO statistics should lead to a decline in incidents of employment discrimination, which is the primary goal of the No Fear Act.

Paperwork Reduction Act

This proposal contains no new information collection requirements subject to review by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. chapter 35).

Administrative Procedure Act

Immediate implementation of this rule as an interim final rule with provision for post-promulgation public comment is based upon the exceptions found at 5 U.S.C. 553(b)(A), (b)(B) and (d). Agency posting requirements under Title III of the No Fear Act begin in FY 2004. It is essential that all agencies understand their responsibilities regarding these requirements so that they can begin capturing this data immediately. EEOC has determined under 5 U.S.C. 553(b)(A) that this regulation, which covers the time, form and manner of agency postings under Title III affects agency organization, procedure, or practice and has no effect on the substantive rights of non-agency parties. In addition, the absence of rules or a later promulgation of rules might result in confusion concerning the posting requirements, to the detriment of the public. EEOC has determined under 5 U.S.C. 553(b)(B) that it would be contrary to the public interest to delay promulgation of these rules. For the same reasons, EEOC has determined under 5 U.S.C. 553(d)(3) that there is good cause for the interim final rule to become effective immediately upon publication with provision for post-promulgation public comment. EEOC is seeking public comment on the regulation and will consider all comments before promulgating a final rule.

Regulatory Flexibility Act

The Commission certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities, because it does not affect any small business entities. The regulation affects only federal government entities. For this reason, a regulatory flexibility analysis is not required.

Unfunded Mandates Reform Act of 1995

This final interim rule will not result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year, and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995.

Congressional Review Act

This action pertains to agency management, personnel and organization and does not substantially affect the rights or obligations of non-agency parties and, accordingly, is not a "rule" as that term is used by the Congressional Review Act (Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)). Therefore, the reporting requirement of 5 U.S.C. 801 does not apply.

List of Subjects in 29 CFR Part 1614

Administrative practice and procedure, Age discrimination, Equal employment opportunity, Government employees, Individuals with disabilities, Race discrimination, Religious discrimination, Sex discrimination.

For the Commission,

Dated: January 16, 2004.

Cari M. Dominguez.

Chair.

■ Accordingly, for the reasons set forth in the preamble, EEOC amends 29 CFR part 1614 as follows:

PART 1614—FEDERAL SECTOR EQUAL EMPLOYMENT OPPORTUNITY

■ 1. The authority citation for Part 1614 continues to read as follows:

Authority: 29 U.S.C. 206(d), 633a, 791 and 794a: 42 U.S.C. 2000e–16; E.O. 10577, 3 CFR, 1954–1958 Comp., p.218; E.O. 11222, 3 CFR, 1964–1965 Comp., p.306; E.O. 11478, 3 CFR, 1069 Comp., p.133; E.O. 12106, 3 CFR, 1978 Comp., p.263; Reorg. Plan No. 1 of 1978, 3 CFR, 1978 Comp., p.321.

■ 2. Subpart G is added to read as follows:

Subpart G—Procedures Under the Notification and Federal Employee Antidiscrimination and Retaliation Act (No Fear Act) of 2002

Sec.

Authority: Sec. 303, Pub. L. 107–174, 116 Stat. 574.

Subpart G—Procedures Under the Notification and Federal Employee Antidiscrimination and Retaliation Act (No Fear Act) of 2002

§ 1614.701 Purpose and scope.

This subpart implements Title III of the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (No Fear Act), Public Law 107–174. It sets forth the basic responsibilities of federal agencies and the Commission to post certain information on their public Web sites.

§ 1614.702 Definitions.

The following definitions apply for purposes of this subpart:

(a) The term *Federal agency* means an Executive agency (as defined in 5 U.S.C. 105), the United States Postal Service, and the Postal Rate Commission;

(b) The term *Commission* means the Equal Employment Opportunity Commission and any subdivision thereof authorized to act on its behalf;

(c) The term *investigation* refers to the step of the federal sector EEO process described in 29 CFR 1614.108 and, for purposes of this subpart, it commences when the complaint is filed and ceases when the complainant is given notice under § 1614.108(f) of the right to request a hearing or to receive an immediate final decision without a hearing;

(d) The term *hearing* refers to the step of the Federal sector EEO process described in 29 CFR 1614.109 and, for purposes of this subpart, it commences when the EEOC Administrative Judge (AJ) receives the complaint file from the agency and ceases when the AJ returns the case to the agency to take final action;

(e) For purposes of § 1614.704(h), (i) and (j), the phrase *without a hearing* refers to a final action by an agency that is rendered:

(1) When an agency does not receive a reply to a notice issued under § 1614.108(f);

(2) After a complainant requests an immediate final decision,

(3) After a complainant withdraws a request for a hearing; and

(4) After an administrative judge cancels a hearing and remands the matter to the agency;

(f) For purposes of § 1614.704(h), (i) and (j), the term *after a hearing* refers to a final action by an agency that is rendered following a decision by an administrative judge under § 1614.109(f)(3)(iv), (g) or (i).

(g) The phrase *final action by an agency* refers to the step of the federal sector EEO process described in 29 CFR 1614.110 and, for purposes of this subpart, it commences when the agency receives a decision by an Administrative Judge (AJ), receives a request from the complainant for an immediate final decision without a hearing or fails to receive a response to a notice issued under § 1614.108(f) and ceases when the agency issues a final order or final decision on the complaint.

(h) The phrase *final action by an agency involving a finding of discrimination* means:

(1) A final order issued by an agency pursuant to § 1614.110(a) following a finding of discrimination by an administrative judge; and

(2) A final decision issued by an agency pursuant to § 1614.110(b) in which the agency finds discrimination;

(i) The term *appeal* refers to the step of the federal sector EEO process described in 29 CFR 1614.401 and, for purposes of this subpart, it commences when the appeal is received by the Commission and ceases when the appellate decision is issued;

(j) The term *basis of alleged discrimination* refers to the individual's protected status (*i.e.*, race, color, religion, sex, national origin, age, disability, or retaliation). Only those bases protected by Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000e *et seq.*; the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. 621 *et seq.*; the Equal Pay Act of 1963, 29 U.S.C. 206(d); and the Rehabilitation Act of 1973, as amended, 29 U.S.C. 791 *et. seq.*, are covered by the federal EEO process.

(k) The term *issue of alleged discrimination* means one of the following challenged agency actions affecting a term or condition of employment as listed on EEOC Standard Form 462 (Annual Federal Equal Employment Opportunity Statistical Report of Discrimination Complaints): Appointment/hire; assignment of duties; awards; conversion to full time; disciplinary action/demotion; disciplinary action/reprimand; disciplinary action/suspension; disciplinary action/removal; duty hours; evaluation/appraisal; examination/test; harassment/non-sexual; harassment/sexual; medical examination; pay/overtime; promotion/non-selection; reassignment/denied; reassignment/directed; reasonable accommodation; reinstatement; retirement; termination; terms/conditions of employment; time and attendance; training; and, other.

(l) The term *subelement* refers to any organizational sub-unit directly below the agency or department level which has 1,000 or more employees.

§ 1614.703 Manner and format of data.

(a) Agencies shall post their statistical data in the following two formats: Portable Document Format (PDF) and an accessible text format that complies with section 508 of the Rehabilitation Act.

(b) Agencies shall prominently post the date they last updated the statistical information on the Web site location containing the statistical data.

(c) In addition to providing aggregate agency-wide data, each agency shall include separate data for each subelement listed in § 1614.702(l). Such data shall be identified as pertaining to the particular subelement.

(d) Data posted under this subpart will be titled "Equal Employment Opportunity Data Posted Pursuant to the No Fear Act" and a hyperlink to the data will be posted prominently on the homepage of each agency's public Web site. In the case of agencies with subelements, the data shall be made available by hyperlinks from the Web sites of both the subelement (if one exists) as well as the parent agency.

(e) Agencies must post cumulative data pursuant to § 1614.704 for the current fiscal year. Agencies may not post separate quarterly statistics for the current fiscal year.

§ 1614.704 Information to be posted—all Federal agencies.

Commencing on January 31, 2004 and thereafter no later than 30 days after the end of each fiscal quarter beginning on or after January 1, 2004, each federal agency must post the following current fiscal year statistics on its public Internet Web site regarding EEO complaints filed under 29 CFR part 1614:

(a) The number of complaints filed in such fiscal year;

(b) The number of individuals filing those complaints (including as the agent of a class);

(c) The number of individuals who filed two or more of those complaints;

(d) The number of those complaints raising each of the various bases of alleged discrimination and the number of complaints in which a non-EEO basis is alleged;

(e) The number of those complaints raising each of the various issues of alleged discrimination;

(f) The average length of time it has taken an agency to complete respectively investigation and final action by an agency for:

(1) All complaints pending for any length of time during such fiscal year,

(2) All complaints pending for any length of time during such fiscal year in which a hearing was not requested and

(3) All complaints pending for any length of time during such fiscal year in which a hearing was requested;

(g) The number of complaints dismissed by an agency pursuant to 29 CFR 1614.107(a), and the average length of time such complaints had been pending prior to dismissal;

(h)(1) The total number of final actions by an agency rendered in such fiscal year involving a finding of discrimination and, of that number,

(2) The number and percentage that were rendered without a hearing and

(3) The number and percentage that were rendered after a hearing;

(i) Of the total number of final actions by an agency rendered in such fiscal year involving a finding of discrimination,

(1) The number and percentage of those based on each respective basis,

(2) The number and percentage for each respective basis that were rendered without a hearing and

(3) The number and percentage for each respective basis that were rendered after a hearing;

(j) Of the total number of final actions by an agency rendered in such fiscal year involving a finding of discrimination,

(1) The number and percentage for each respective issue,

(2) The number and percentage for each respective issue that were rendered without a hearing and

(3) The number and percentage for each respective issue that were rendered after a hearing;

(k) Of the total number of complaints pending for any length of time in such fiscal year,

(1) The number that were first filed before the start of the then current fiscal year,

(2) The number of individuals who filed those complaints in earlier years, and

(3) The number of those complaints that are respectively pending at the investigation, hearing, final action by an agency, and appeal step of the process; and

(l) Of the total number of complaints pending for any length of time in such fiscal year, the total number of complaints in which the agency has not completed its investigation within the time required by 29 CFR 1614.106(e)(2) plus any extensions authorized by that section or § 1614.108(e).

§ 1614.705 Comparative data—all Federal agencies.

Commencing on January 31, 2004 and no later than January 31 of each year thereafter, each federal agency shall post year-end data corresponding to that required to be posted by § 1614.704 for each of the five immediately preceding fiscal years (or, if not available for all five fiscal years, for however many of those five fiscal years for which data are available). For each category of data, the agency shall post a separate figure for each year.

§ 1614.706 Additional data to be posted by EEOC.

(a) Commencing on January 31, 2004 and thereafter no later than 30 days after the end of each fiscal quarter beginning on or after January 1, 2004, the Commission must post the following current fiscal year statistics on its public Internet Web site regarding hearings requested under this part 1614:

(1) The number of hearings requested in such fiscal year;

(2) The number of individuals filing those requests;

(3) The number of individuals who filed two or more of those requests;

(4) The number of those hearing requests involving each of the various bases of alleged discrimination;

(5) The number of those hearing requests involving each of the various issues of alleged discrimination;

(6) The average length of time it has taken EEOC to complete the hearing step for all cases pending at the hearing step for any length of time during such fiscal year;

(7)(i) The total number of administrative judge (AJ) decisions rendered in such fiscal year involving a finding of discrimination and, of that number,

(ii) The number and percentage that were rendered without a hearing, and

(iii) The number and percentage that were rendered after a hearing;

(8) Of the total number of AJ decisions rendered in such fiscal year involving a finding of discrimination,

(i) The number and percentage of those based on each respective basis,

(ii) The number and percentage for each respective basis that were rendered without a hearing, and

(iii) The number and percentage for each respective basis that were rendered after a hearing;

(9) Of the total number of AJ decisions rendered in such fiscal year involving a finding of discrimination,

(i) The number and percentage for each respective issue,

(ii) The number and percentage for each respective issue that were rendered without a hearing, and

(iii) The number and percentage for each respective issue that were rendered after a hearing;

(10) Of the total number of hearing requests pending for any length of time in such fiscal year,

(i) The number that were first filed before the start of the then current fiscal year, and

(ii) The number of individuals who filed those hearing requests in earlier years; and

(11) Of the total number of hearing requests pending for any length of time in such fiscal year, the total number in which the Commission failed to complete the hearing step within the time required by § 1614.109(i).

(b) Commencing on January 31, 2004 and thereafter no later than 30 days after the end of each fiscal quarter beginning on or after January 1, 2004, the Commission must post the following current fiscal year statistics on its public Internet Web site regarding EEO appeals filed under this part 1614:

(1) The number of appeals filed in such fiscal year;

(2) The number of individuals filing those appeals (including as the agent of a class);

(3) The number of individuals who filed two or more of those appeals;

(4) The number of those appeals raising each of the various bases of alleged discrimination;

(5) The number of those appeals raising each of the various issues of alleged discrimination;

(6) The average length of time it has taken EEOC to issue appellate decisions for:

(i) All appeals pending for any length of time during such fiscal year,

(ii) All appeals pending for any length of time during such fiscal year in which a hearing was not requested, and

(iii) All appeals pending for any length of time during such fiscal year in which a hearing was requested;

(7)(i) The total number of appellate decisions rendered in such fiscal year involving a finding of discrimination and, of that number,

(ii) The number and percentage that involved a final action by an agency rendered without a hearing, and

(iii) The number and percentage that involved a final action by an agency after a hearing;

(8) Of the total number of appellate decisions rendered in such fiscal year involving a finding of discrimination,

(i) The number and percentage of those based on each respective basis of discrimination,

(ii) The number and percentage for each respective basis that involved a final action by an agency rendered without a hearing, and

(iii) The number and percentage for each respective basis that involved a final action by an agency rendered after a hearing;

(9) Of the total number of appellate decisions rendered in such fiscal year involving a finding of discrimination,

(i) The number and percentage for each respective issue of discrimination,

(ii) The number and percentage for each respective issue that involved a final action by an agency rendered without a hearing, and

(iii) The number and percentage for each respective issue that involved a final action by an agency rendered after a hearing; and

(10) Of the total number of appeals pending for any length of time in such fiscal year,

(i) The number that were first filed before the start of the then current fiscal year, and

(ii) The number of individuals who filed those appeals in earlier years.

[FR Doc. 04–1505 Filed 1–23–04; 8:45 am]

BILLING CODE 6570–01–P

DEPARTMENT OF THE INTERIOR

Minerals Management Service

30 CFR Part 203

RIN 1010–AD01

Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Relief or Reduction in Royalty Rates—Deep Gas Provisions

AGENCY: Minerals Management Service (MMS), Interior.

ACTION: Final rule.

SUMMARY: This rule provides temporary incentives in the form of royalty suspension volumes for producing gas from certain deep wells (at least 15,000 feet below sea level). The rule also provides a royalty suspension supplement for drilling certain unsuccessful deep wells. The rule also provides price thresholds that may result in discontinuation of the royalty relief.

EFFECTIVE DATE: This rule is effective March 1, 2004.

FOR FURTHER INFORMATION CONTACT: Marshall Rose, Chief, Economics Division, Minerals Management Service, at (703) 787–1536. E-mail: *Marshall.Rose@mms.gov*. Address: Minerals Management Service, MS 4050, 381 Elden Street, Herndon, Virginia 20170.

SUPPLEMENTARY INFORMATION: Title 30 CFR part 203 regulates the reduction of oil and gas royalty under 43 U.S.C. 1337(a)(3). Under section 1337(a)(3)(B), MMS may reduce, modify, or eliminate royalties on certain producing or non-producing leases or categories of leases to promote development or increased production or to encourage production of marginal resources, in the Gulf of Mexico (GOM) west of 87 degrees, 30 minutes West longitude.

Objective: The objective of the deep gas incentive provided in this rule is to increase the volume of natural gas production from the Outer Continental Shelf (OCS) by encouraging lessees to quickly explore for and develop deep-well gas reserves. That activity will provide near-term supplies to help alleviate potential natural gas shortages and help moderate prices over the next decade.

In the short-term, supply and demand for natural gas tend to be relatively inelastic, which can cause large fluctuations in price during periods of relative scarcity or abundance of supply. In recent years, higher prices during periods of tight supply have been evident, spiking at over $8 per million British thermal units (MMBtu) on the New York Mercantile Exchange (NYMEX) during the winter of 2000–2001. High and volatile natural gas prices contribute to a climate of uncertainty, thereby inhibiting continuous, sustained investment in deep gas development. High natural gas prices during periods of tight supply have hurt households, farmers, businesses, and negatively affected our economy as a whole. Without new sources of domestic natural gas, the United States (U.S.) will likely experience continued tightness of supply, price volatility, and increased reliance on imports from Canada and liquefied natural gas (LNG) from overseas.

While our nation's natural gas resources are substantial, much of the remaining resources on available Federally regulated lands (*i.e.*, those areas which remain open to leasing and exploration), will be increasingly costly to produce because of higher exploration and production costs and greater technical challenges of recovering gas from deep-water, deep formations, and harsh environments. Though significant potential natural gas finds may exist in the deep-water OCS and from areas in Alaska or onshore in the Rocky Mountain States, significant contribution from these areas is not expected until after 2008.

For new sources of gas supply in the near-term, the shallow waters of the GOM hold the greatest promise. MMS determined that one initiative to encourage rapid exploration and development of new natural gas reserves is to provide financial incentives to encourage new and earlier drilling of deep gas resources—approximately three miles and deeper—below existing platforms in the GOM. Natural gas prospects at this depth pose a technological challenge, but the gas can be accessed and transported using existing infrastructure in this mature oil- and gas-producing basin. Providing royalty relief can encourage timely and profitable deep gas production. Suspending some of the royalty payments due the Government on lease production can promote and accelerate new natural gas production by ensuring a viable rate of return to lessees for exploration and development of certain otherwise marginal deep gas prospects or by increasing industry's expected financial return from exploring and developing deep gas on their shallow water OCS leases relative to other (*e.g.*, foreign) investments.

The continued success of the Federal offshore oil and gas program is due, in part, to the judicious use of leasing, financial, and other incentives to promote continued industry interest and investment in new technologies for exploration and development in frontier areas of the OCS. The U.S. can benefit in many ways from increased domestic natural gas production. Exploration, development, and production of Federal natural gas resources by private firms yield significant economic benefits including payment of $2 to $4 billion in royalties annually to the Federal Treasury. The incentive in this rule is intended to provide significant social benefits by helping sustain domestic natural gas supplies and moderate energy costs to consumers, while minimizing costs to the Federal Treasury. The effects of this rule can help consumers by expanding the supply of natural gas from sources that might never have been discovered or accelerating production that may not have occurred until much later in the future.

MMS estimates that this incentive could provide about 4.4 trillion cubic feet (TCF) of additional hydrocarbon production (of which 3.6 TCE is gas) over the next 16 years, which will help moderate prices and save consumers about $500 million in natural gas costs per year over the next decade. Although Federal royalty payments will be lower while any gas production is royalty-free, MMS expects that the increased production will eventually provide royalty revenue that would offset the lost revenue experienced during early years of the incentive program. MMS estimates that the rule could result in a present value loss in Federal royalty collections over 16 years of from $150 million to $220 million (depending on

price volatility) out of some $47 billion collected. Total Federal collections from leasing now run about $5 billion per year.

Background

Natural gas, one of the most important fuel sources in the U.S. economy, supplies almost a quarter of the Nation's energy needs. Natural gas is a relatively reliable source of energy because a high proportion of domestic consumption is met by domestic production. In 2002, the U.S. produced about 19 TCF of natural gas, which supplied about 84 percent of U.S. demand totaling about 23 TCF. Imports of natural gas (primarily from Canada) and a small amount of LNG from Algeria, Qatar, and Trinidad and Tobago, supplied the remaining 4 TCF (16 percent).

Heating and electricity generation have traditionally been the predominant uses of natural gas, but demand for natural gas is projected to grow in all sectors of the economy, especially as a fuel source for electricity generation. Natural gas fuels about 20 percent of current electricity generation, but this percentage is expected to increase dramatically because an increasing number of our electric generating plants are switching to natural gas for power generation and planned future capacity is expected to rely primarily on natural gas. This will contribute to a dramatic increase in U.S. demand for natural gas in the next 10–20 years. The Energy Information Administration (EIA) of the Department of Energy projects that the U.S. demand for natural gas could increase by more than 50 percent in the next 20 years, increasing from 22 TCF in 2003 to 35 TCF in 2025. Though LNG imports from overseas are expected to increase over time, helping to supply some of the demand growth, even optimistic estimates suggest that about 80 percent of the expected increase in consumption will need to be supplied from domestic sources.

In 2002, the Federal OCS was the single largest source of oil and gas for the nation—larger than any State or foreign supplier. The majority of Federal production comes from the GOM. The OCS currently provides about 14 billion cubic feet (BCF) of natural gas per day (about 5 TCF annually) for U.S. consumers, supplying about 25 percent of domestic demand. The OCS is expected to remain a significant source for increased supply of natural gas to meet U.S. demand in the long term because it contains about one-third of the remaining undiscovered technically recoverable natural gas resources in the U.S. MMS projects that the GOM could contain 193 TCF of undiscovered natural gas, which represents about 53 percent of the total OCS estimate of undiscovered gas resources (362 TCF).

Continued production of natural gas from the GOM OCS may be the key to a stable and secure natural gas future for the U.S., but there is concern about the ability of the OCS to maintain its current level of production over the coming decades. Total proven natural gas reserves on the GOM OCS have declined dramatically from nearly 46 TCF in 1986 to approximately 24 TCF in 1999. [Estimated Oil &Gas Reserves, Gulf of Mexico Dec. 31, 1999, OCS Report MMS 2002–007]. Recent gas discoveries in the mature producing areas of the GOM are smaller than previous reserves and are depleted more rapidly. The production rate per well has been declining. To maintain or increase the existing level of domestic natural gas supplies, the nation needs more well completions to offset these declines. Without dramatic change in exploration and development patterns, production from the GOM may not be able to meet the expected share of future natural gas supply needed from the OCS to meet growing demand. Energy producers now have to look in more remote locations, using innovative technologies, and the government needs to encourage identification and development of new sources.

President Bush's National Energy Policy (NEP) provides a long-term energy strategy for securing America's energy future and addresses production of traditional energy sources, alternative and renewable sources, and energy conservation and efficiency. Natural gas is an important cornerstone of the NEP because it is relatively efficient and clean-burning, as it produces fewer emissions than other fossil fuels, and is an abundant domestic resource. As such, the NEP encourages the environmentally responsible development of natural gas to meet the Nation's near-term demand.

The NEP recommended that the Secretary of the Interior consider economic incentives for offshore oil and gas development where warranted by specific circumstances. To encourage increased energy investment—a long-term process—industry needs certainty and stability, and incentives that are predictable and transparent. In particular, the NEP recommended that the Secretary of the Interior explore opportunities to provide royalty reductions for enhanced oil and gas recovery; for reduction of risk associated with production in frontier areas or deep gas formations; and for development of small fields that would otherwise be uneconomic. This deep gas rule implements one part of MMS's responsibilities under the NEP to promote environmentally sound production of our Nation's energy resources, using royalty suspensions to reduce financial risks associated with production of OCS deep gas formations.

Deep Shelf Gas

Total GOM natural gas production has been fairly constant at about 5 TCF per year for the last 20 years. Currently, about 75 percent of this production comes from reservoirs in shallow waters of the shelf. However, since 1996, production from the shelf has been declining at a precipitous 30 percent rate, from 4.8 TCF in 1997 to about 3.4 TCF in 2002. During this time, increasing production from deep-water areas has kept OCS production stable. As shelf production continues to decline in both shallow and deep water, there could be a significant drop in OCS production of natural gas over the next 5–10 years unless new reserves can be found and brought on line quickly. To maintain GOM production levels near 5 TCF, or to increase aggregate production, a high level of exploration activity in both shallow and deep-water areas of the GOM will be needed.

The shallow waters of the GOM have been actively explored and any natural gas remaining in shallow-depth reservoirs, *i.e.*, less than 15,000 feet total vertical depth subsea (TVD SS) is expected to be found in a large number of smaller, isolated reservoirs. Many marginally economic wells will be required to exploit those resources. In contrast, relatively few wells, only about 2,100 (5 percent of total) have been drilled to deep depths on the shelf, including 64 in 2002. The potential for large new reservoirs with high production rates is greater at deep depths than in more mature, shallower areas.

Recent deep gas discoveries on the OCS have shown that these new deep-shelf completions can produce gas volumes of 20–80 million cubic feet per day (MMCFd) or more. However, deeper drilling requires upgraded rigs, higher well costs, and considerably longer drilling times. Greater well depths and higher pressures and temperatures make deep-shelf targets riskier and more costly to drill. Target reservoirs therefore need to be substantially larger at deep-depth to warrant the larger investment. So far, the failures from drilling deep gas wells on the shelf outnumber successes. Industry reports, and MMS data confirms, that there is only a 1 in 4 chance of successfully drilling a deep gas well, which can cost $8 to $20 million per well, at drilling

depths 15,000–20,000 feet TVD SS. Increased experience and improvements in technology over time, encouraged by the economic incentives in this rule, should continue to reduce both the risks and costs.

Industry has made significant advances in developing technology to enable drilling to deep geologic horizons. Continued advances in directional drilling will help lower costs and foster recovery of additional resources from a single development site. New seismic technology provides an opportunity for industry to map promising prospects at deep depths, but the quality of imaging thus far is relatively poor. New and improved technologies are still needed for seismic exploration and to solve many of the technological and mechanical challenges that will lower drilling costs and enable safe and efficient drilling in conditions of extremely high temperature and pressure.

Renewed interest in deep-shelf gas in shallow water may help stem the tide of declining gas reserves and production from the GOM shelf. To date, operators who discover deep gas are able to bring production on line quickly, and at high flow rates. For example, the deep gas discovery in South Timbalier Block 204 in 2000 began production in 2001, and achieved peak production of 350 MMCFd in 2002. But higher flow rate wells can also decline rapidly. Therefore, a large number of wells will need to be drilled to sustain GOM production. Growing demand for natural gas and strong prices have renewed industry's interest in this expensive and technically challenging deep gas play and revived this mature producing province in the GOM.

To jump-start increased drilling of natural gas from deep horizons, MMS expanded its royalty relief program and began offering a royalty relief incentive for shallow water leases in OCS lease sales starting in 2001. This incentive provided a suspension of royalties on the first 20 BCF of deep gas production for all OCS tracts in less than 200 meters of water where a new deep gas reservoir 15,000 feet or greater subsea is drilled and begins production within the first 5 years of the life of the lease. Royalty relief is provided only when specified annual price threshold ceilings for natural gas are not exceeded. The incentive has revived bidding for leases in shallow water in the Central GOM and industry is making plans to drill to deep depths on these leases. Because of the significant infrastructure—platforms, producing facilities, and pipelines—that already exists in this mature producing basin, any new deep gas production can be transported quickly to markets.

However, these deep drilling incentives cover only the 1,240 new shallow water leases issued since 2001, a portion of the shelf's deep gas potential. Production from deep wells on 2,400 existing leases in shallow water, where significant infrastructure already is in place, is the most attractive source of additional natural gas on the OCS. MMS estimated in 2003 (OCS Report, MMS 2003–026 "Gulf of Mexico OCS Deep Shelf Gas Update: 2001–2002") that there could be 5 to 20 TCF—with a most likely value of 10.5 TCF—of recoverable natural gas present in deep depths underlying the shallow water shelf portion of the OCS. Recent analysis based on new seismic technology has suggested that even greater potential may exist for technically recoverable gas resources from deep depth locations. (DOI–MMS Press Release #3012, November 19, 2003). The majority of that potential (at least 60 percent) is expected to underlie active leases that were issued before 2001. This rule is targeted to provide an incentive for these 2,400 leases, where drilling could commence almost immediately and production could be on line within 1–2 years. Companies holding leases issued before 2001 will now have incentive to drill deep wells comparable to incentives provided for new leases, thereby encouraging more drilling of new deep wells and deepening of existing ones. Additional production from existing leases will help extend the economic life of those leases and the existing infrastructure in the GOM. Deep gas production will help bridge the expected mid-term shortfall in natural gas supplies until large field development from new deep-water and onshore prospects comes on line in the future.

Summary of the Deep Gas Royalty Relief Program

This summary discusses the various components of the royalty relief provisions for deep gas production in shallow water. For leases eligible to receive such royalty relief, MMS will suspend royalty payments after certain deep drilling activities and outcomes occur. A lease will be eligible to receive royalty relief for deep gas wells if it:

(1) Is located in the GOM wholly west of 87 degrees, 30 minutes West longitude; and entirely in water depths less than 200 meters (or partly in water depths less than 200 meters if issued in lease sales that did not provide for non-discretionary deep-water royalty relief), and

(2) Was in existence on January 1, 2001; was issued in a lease sale held after that date, and the lessee exercised its option before 180 days after the effective date of the final rule or 180 days after the lease was issued, whichever is later, to substitute the terms of this rule for the deep gas royalty relief terms in the original lease instrument; or is issued in a future lease sale with terms that reference this rule, and

(3) Has production within 5 years after the effective date of final rule (or within 6 years if the lessee has obtained a 1-year extension) from a qualified deep well drilled after March 26, 2003, or

(4) Has no gas or oil production from a deep well with a perforated interval the top of which is 18,000 feet TVD SS or deeper, but has a certified unsuccessful original well, or a certified unsuccessful sidetrack whose length is at least 10,000 feet, drilled after March 26, 2003, to depth of at least 18,000 feet TVD SS within 5 years after the effective date of the final rule.

The form of the royalty relief is a royalty suspension volume (RSV) or royalty suspension supplement (RSS). An RSV under this rule is the amount of qualified deep well gas production from a lease, or allocated to a lease under a unit agreement, that will be royalty free as a result of the incentive earned from drilling certain successful wells and sidetracks. An RSS is the amount of future oil and gas production from, or allocated under a unit agreement to, a lease from all wells regardless of depth or drilling date or hydrocarbon (gas or oil) produced that will be royalty free as the result of the incentive earned from drilling certified unsuccessful wells and sidetracks.

For deep wells, *i.e.*, original wells or sidetracks, to qualify for RSV and RSS as specified in Table 1, they must meet certain requirements as described in detail below:

(1) The vast majority of shallow water leases have not yet drilled and produced gas or oil from deep depths. For those leases, drilling a new deep well may earn an RSV of 15 BCF when drilled (and perforated) to the vertical depth interval between 15,000 to less than 18,000 feet subsea; or an RSV of 25 BCF when drilled (and perforated) to vertical depths of at least 18,000 feet subsea. Drilling a sidetrack may earn a prorated RSV based in part on its measured depth (*i.e.*, length from the point of departure from the original hole), up to a maximum of 15 or 25 BCF (depending on which deep depth interval is reached).

(2) While the rule was being developed, MMS did not want to discourage or delay deep drilling, so the proposed rule provided that any new wellbore on which drilling started on or subsequent to March 26, 2003, targeted to below 15,000 feet vertical depth, could still qualify the lease for an RSV. The specification of an RSV for sidetracks, as well as the additional RSV for a second deeper qualified well, was added to the final rule as a result of MMS's review and analysis of public comments on the proposed rule. Because the proposed rule envisioned the possibility of royalty relief in these latter cases, they have the same effective date as original wells.

(3) If a new wellbore was drilled on a lease before March 26, 2003 (the publication date of the proposed rule in the **Federal Register**), but has yet to produce, the lease may still earn an RSV from a qualified well or sidetrack that produces the first deep gas on the lease. But any subsequent production from the earlier unqualified well or sidetrack cannot share in any RSV.

(4) Generally, an RSV cannot be earned on a lease that has a deep well that produced before March 26, 2003. However, MMS is providing an exception when those deep wells or sidetracks on a lease produced from the depth interval between 15,000 and 18,000 feet TVD SS. For those leases, to encourage additional deep drilling to deeper horizons, subsequent wells or sidetracks drilled (and perforated) to at least 18,000 feet TVD SS may qualify the lease for an RSV of 10 BCF for an original wellbore, or a prorated RSV—up to a maximum of 10 BCF—for a sidetrack, based in part on its measured depth (see table below).

(5) A lease will qualify for an RSS that may be applied to any subsequent gas and oil production from or allocated to the lease if it:

a. Has an unsuccessful original well or an unsuccessful sidetrack at least 10,000 feet in length that reaches a target on the lease at a depth of at least 18,000 feet TVD SS, and the drilling began on or after March 26, 2003, and no later than 5 years after the effective date of the final rule;

b. Has started drilling that well before producing gas or oil from an original well or sidetrack on the lease with a perforated interval the top of which is 18,000 feet TVS SS or deeper; and

c. Receives subsequent confirmation from MMS that the drilling effort was deep enough but unsuccessful. MMS relies on data that the lessee provides within 60 days after the well reaches its total depth.

(6) A lessee cannot obtain both a full RSV and a full RSS from the same wellbore. If a certified unsuccessful well later produces, then any portion of the RSS taken (plus gas and oil produced during periods that would have been royalty-free but for the fact that gas prices exceed the price threshold) would have to be subtracted from any RSV earned from that well. Also, the lessee could not use any remaining RSS earned from that well, beginning when the RSV is earned from that well.

(7) The RSS resulting from drilling a certified unsuccessful original well is 5 billion cubic feet of gas equivalent (BCFE) if the lease has not produced from any deep well before the certified unsuccessful well is drilled. The RSS for a certified unsuccessful sidetrack is prorated in the same proportion of the RSV as for an original well (0.8 BCFE plus 120 MCFE times the sidetrack measured depth, rounded to the nearest 100 feet), but no more than 5 BCFE, if the lease has not produced from any deep well. If the lease has produced from a deep well in the 15,000–18,000 feet TVD SS interval before a certified unsuccessful original well, or a sidetrack of at least 10,000 feet measured depth is drilled, the RSS resulting from drilling the certified unsuccessful original well is 2 BCFE.

The following table shows the royalty suspensions in BCF that a lessee can earn for deep wells—original wells or sidetracks—on a lease drilled and completed with a perforated interval the top of which is at or below 15,000 feet TVD SS, and the RSS, in BCFE, that a lessee can earn for certified unsuccessful original wells or sidetracks on a lease drilled to a least 18,000 feet TVD SS.

TABLE 1.—ROYALTY SUSPENSION VOLUMES (RSV) AND ROYALTY SUSPENSION SUPPLEMENTS (RSS) EARNED FROM DEEP GAS WELLS ON OCS LEASES IN SHALLOW WATERS OF THE GULF OF MEXICO

Depth of Well	Date of initial production or of reaching target depth	Type of well	For a qualified deep well, a lease receives an RSV on gas production from qualified wells of:	For a certified unsuccessful well, a lease receives up to 2 RSS on oil and gas production from any wells of:
A well 15,000 to less than 18,000 feet TVD SS (top of perforated interval).	Before production from a well 15,000 feet TVD or deeper.	Original	15 BCF	None.
		Sidetrack	4 BCF + (600 MCF times measured depth (to nearest 100 feet));. Up to maximum of 15 BCF ..	None.
A well 18,000 feet TVD SS or deeper		Original	25 BCF	5 BCFE.
		Sidetrack	4 BCF + (600 MCF times measured depth (to nearest 100 feet));. Up to maximum of 25 BCF ..	0.8 BCFE + (120 MCFE times measured depth (to nearest 100 feet)) if measured depth at least 10,000 feet; Up to a maximum of 5 BCFE.
A well 18,000 feet TVD SS or deeper (top of perforated interval).	At the same time as or after production from a qualified or unqualified well 15,000–18,000 feet deep.	Original	10 BCF	2 BCFE.
(If initial production is from a qualified well, then the RSV is added to the RSV earned by the qualified well).		Sidetrack	4 BCF + (600 MCF times measured depth (to nearest 100 feet));. Up to maximum of 10 BCF ..	2 BCFE.

A lease may earn two RSSs of up to 5 BCFE each plus an RSV up to 25 BCF. Thus, a lease could earn the right to produce as much as 35 BCF of natural gas royalty-free, that is, 10 BCFE because of two initial unsuccessful wells and then 25 BCF from a subsequent successful well drilled to at least 18,000 feet TVD SS. A current or successor lessee may also apply the RSV earned by the lease's first qualified well to any natural gas production from, or allocated under an approved unit agreement to, the lease from subsequent qualified wells.

However, if the qualified wells are drilled to a depth 15,000 to less than 18,000 feet TVD SS, then the maximum RSV volume that can be applied to gas production is 15 BCF. If the first qualified deep well was drilled 15,000 to less than 18,000 feet TVD SS, and the second to a depth 18,000 feet TVD SS or deeper, then the lease would earn 15 BCF initially plus another 10 BCF for the second qualified deep well. In this case, gas production from all qualified wells on the lease share in any remaining RSV up to a total of 25 BCF, as long as the aggregate amount of royalty suspension volume used does not exceed the 25 BCF earned by drilling the qualified wells.

A lease must have a qualified deep well before an RSV may apply to deep well gas produced on that lease, or allocated to the lease under a unit agreement. Therefore, if Lease A is in a unit and is allocated production from a qualified deep well on Lease B in the unit, then Lease A has no RSV unless it also has its own qualified deep well. If Lease A has earned no RSV, royalty must be paid on any deep well gas production allocated to it under a unit agreement.

Finally, once production begins from a qualified deep well on a lease, the lessee must use the applicable RSV continuously for all gas production on or allocated to that lease from qualified deep wells. In other words, the lessee cannot delay applying the RSV to applicable production, and must apply the relief only to production occurring after this rule becomes effective.

Any remaining RSV and RSS are subject to a natural gas threshold price of $9.34 per MMBtu, adjusted from year 2004 for inflation. If the average daily closing NYMEX natural gas price (for the nearby future delivery month) exceeds this adjusted level for that full calendar year, the lessee would have to pay full royalties on any production of natural gas or oil that would otherwise have royalties suspended due to royalty relief from a qualified deep well or certified unsuccessful deep well. Moreover, the volume produced during such a calendar year would count against the eligible RSV and RSS.

Modifications Made in the Final Rule

The main elements of the deep gas royalty relief program described in the proposed rule have been retained in this final rule. In particular, a lease drilling to and producing natural gas from depths of 15,000–18,000 feet TVD SS may earn a royalty suspension volume (RSV) of 15 BCF. A lease drilling to and producing natural gas from depths of 18,000 feet or deeper TVD SS may earn an RSV of 25 BCF. In each case the specified amounts of relief are earned if the first deep gas production on the lease occurs from an original well, *i.e.* a new wellbore not including sidetracks, that commenced drilling on or after the date of the proposed rule of March 26, 2003. Subsequent deep wells may share in the RSV earned by the first deep well.

The final rule clarifies what production the royalty suspension volume applies to. As discussed in more detail below, the royalty suspension volume applies only to gas production from qualified deep wells on the lease, and not to gas production from wells in shallower depths or from deep wells that are not qualified wells as defined in the rule. (The deep gas royalty suspension volume does not apply to crude oil production, even if it comes from a deep well.) Because the RSV applies only to production from certain wells, and not to production from the lease as a whole, the final rule applies the RSV to the production reported on the Oil and Gas Operations Report, Part A (OGOR–A), which is the only report of production on the well level that lessees or operators must file with MMS. The monthly report of sales and royalty (the Form MMS–2014) reports production by product and production month on a lease level from all wells at all depths, not on a well level. Hence, it is not possible to use the volumes reported on Form MMS–2014 as the base to which the RSV is to be applied.

The OGOR–A, however, reports *all* gas produced from an identified well, including flared gas, gas that is used as fuel on a lease, etc. In other words, volumes reported by well on the OGOR–A include both royalty-bearing and non-royalty-bearing production. Non-royalty-bearing production is not reported on the Form MMS–2014, but as explained above, that form reports production on a lease level. It is not possible to know from either the OGOR–A or the Form MMS–2014 how much production from a particular well was used as fuel or flared. Because the RSV will apply to production only from certain wells, the only practical option is to use the production figures reported on the OGOR–A. Consequently, it is not possible to apply the RSV exactly only to royalty-bearing production from those wells. At the same time, however, the non-royalty-bearing production from a particular well is generally a very small percentage of the total production.

The practical effect of applying the RSV to the production volumes reported on the OGOR–A is to reduce slightly the amount of actual royalty relief a lessee obtains below the stated volumes prescribed in the rule. However, because the percentage of non-royalty-bearing production generally is so small, we believe the effects are negligible.

In addition, the lease may earn a royalty suspension supplement (RSS) of either 5 BCFE or 2 BCFE up to 5 BCFE from drilling an original well or a sidetrack (of at least 10,000 feet measured depth) to a target depth of at least 18,000 feet TVD SS that is not capable of production, or meets certain standards for encountering non-commercial amounts of hydrocarbons. To earn an RSS of 5 BCFE for an original well, or up to 5 BCFE for a sidetrack, for drilling unsuccessfully to 18,000 feet TVD SS or deeper, the lease must not have produced gas or oil previously from any deep well. If the lease has produced gas or oil from a deep well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS, the lease will receive an RSS of 2 BCFE for either an unsuccessful original well or an unsuccessful sidetrack (of at least 10,000 feet measured depth). A lease may earn up to two RSSs of up to 5 BCFE each in failed attempts to locate deep gas resources from wells that began drilling on or after March 26, 2003.

MMS received a variety of comments on the manner in which we intend to treat unitization agreements. MMS concluded that the structure offered in the proposed rule is appropriate. The RSV and RSS are lease-specific and not formally part of an MMS-approved unit agreement providing for production allocation. Hence, a lease must have a well drilled on it to deep depths to earn an RSV. The lease cannot be allocated any portion of another lease's RSV or RSS or redistribute its own RSV or RSS for use by other leases in the unit. MMS presumes that compensatory side arrangements between unit co-owners will evolve and prove to be a better way to deal with the distribution of royalty relief among unit owners than would be the case under formal MMS rules. In particular, such rules are subject to complications from changing partners

and revision of lease and unit agreement terms.

We reconsidered the requirement that production must commence within 5 years after the date of the final rule for drilling to deep depths to qualify for relief. Some respondents recommended a longer period, in conjunction with discretion for MMS to grant extensions on a case-by-case basis. MMS acknowledges that circumstances beyond the lessee's control could prevent meeting the 5-year time frame. Accordingly, under certain conditions, MMS will extend the time required to start production for up to 1 year if drilling has reached the target depth and production would have started within 5 years following the date of the final rule, except for circumstances beyond the lessee's control.

The basic features of the incentive program were generally well received by those commenting on the Proposed Rule for Relief or Reduction in Royalty Rates—Deep Gas Provisions (68 FR 14868). In consideration of comments offered at a workshop held in Houston on April 30, 2003, and comments submitted by 14 separate respondents to the proposed rule one month later, MMS made some changes in this final rule. Changes in three areas are noteworthy—leases with multiple deep wells, sidetrack deep wells, and the price threshold.

Leases with Multiple Deep Wells: Under the proposed rule, a lease which first produced from deep depths (at least 15,000 feet TVD SS) as a result of a well commencing prior to the proposed rule would not have been eligible for deep gas royalty relief. MMS now believes that some relief from royalties is appropriate in the special instance where a lease has produced only from the 15,000–18,000 foot depth category and subsequently drills and produces after the proposed rule in the deeper depth category. This is the case because the prospective nature of a deeper depth drilling category is still unknown and some incentive could be effective at stimulating drilling to the deeper depths.

We set the RSV earned in these cases for original wells at the difference in RSV's between relevant depth categories. So, if a lease has produced from 15,000–18,000 feet TVD SS before the proposed rule, or has produced from this depth interval after the proposed rule from a well drilled before the proposed rule, the lease is still eligible to earn 10 BCF in relief [25 BCF–15 BCF] from subsequent drilling and production from 18,000 feet or deeper TVD SS. Of course, in neither case do the unqualified wells earn any relief; nor can production from such wells share in relief earned by other wells, regardless of the sequence in which the unqualified well produces.

Along these same lines, the proposed rule set the maximum RSV available to a lease equal to the RSV earned by the first qualified well. To encourage the operator to drill the most prospective target first, the final rule allows the lease's RSV to increase if a well is subsequently produced from a deeper depth category. So, drilling two qualified deep original wells—the first to 15,000–18,000 feet TVD SS, and the second to 18,000 feet or deeper TVD SS—earns the lease 15 BCF initially, followed by an extra 10 BCF for the second well. Thus, the lease has a total RSV of 25 BCF in this case.

The same increment of 10 BCF would apply if the first qualified well was a sidetrack, and the second an original well. If an original well were first drilled into the 15,000–18,000 foot depth interval, followed by a sidetrack into the deeper interval, the sidetrack could earn an RSV up to 10 BCF depending on the length of the sidetrack (as discussed further below). In addition to this change in royalty relief on multiple-well leases, the final rule permits the second well to share all of the lease's RSV even if it is not drilled into the deepest depth interval.

Sidetrack Deep Wells: We also decided to explicitly make deep sidetrack drilling eligible for relief in the final rule because sidetrack drilling may become an effective means to exploit deep gas resources. The proposed rule provided no specific incentive to drill additional sidetracks because MMS believed that the structure of the royalty relief expressly offered to original wells in the proposed rule would not have unduly biased drilling in favor of the more expensive original wells. However, MMS asked for comments on whether we also should include sidetracks. Responses emphasized the gap in our program which overlooked individual drilling opportunities containing potential resources too small to make undertaking an original well economical, even with royalty relief. Also, sidetracks occasionally are used to reclaim previously used platform slots, that is, to make maximum efficient use of existing facilities, which is an important feature of this program. For these reasons, MMS has decided to add sidetrack drilling to our royalty relief program in the final rule.

The rule is now structured so that original wells and sidetracks are treated the same with regard to lease and well eligibility, with three main exceptions. First, the magnitude of sidetrack relief differs from the relief MMS makes available to original deep wells. Second, sidetrack relief earned can never exceed the amount of relief that would have been earned by an original well drilled under the same circumstance, to the equivalent depth. Third, the amount of sidetrack relief is based on measured depth from the previously drilled hole to the bottom hole of the sidetrack, rather than drilling depth.

In general, the following equation gives the amount of relief earned by a qualified sidetrack well. The RSV is equal to 4 BCF plus 0.6 BCF per 1,000 feet of measured depth drilled, that is, the length of the sidetrack. Sidetrack relief is constrained to not more than 15 BCF for the first qualified deep well produced from 15,000–18,000 feet TVD SS or 25 BCF of the first qualified deep well produced 18,000 feet TVD SS or deeper. If deep production has already occurred from 15,000–18,000 feet TVD SS on the lease, then drilling and producing a sidetrack to 18,000 feet TVD SS or deep can earn the amount of relief given by the equation but no more than 10 BCF. Of course, if deep production has already occurred at 18,000 feet TVD SS or deeper, drilling a sidetrack (or original well) to this depth interval (or to the shallower depth interval) earns no relief.

A lease's eligibility for royalty relief is limited in several ways where there exists a sidetrack that commenced drilling to a deep depth interval before the proposed rule and either produced before the proposed rule or first produced from that deep depth interval after the date of the proposed rule. Otherwise, sidetracks are treated just like original deep wells. These restrictions mirror those imposed on drilling an original well before the proposed rule. First, the sidetrack does not earn relief and its production cannot share in any relief earned by other deep wells. Second, the lease cannot earn deep gas relief from any subsequent wells drilled to that same deep depth interval or to a shallower deep depth interval. Third, subsequent drilling of an otherwise qualified original well to a deeper depth interval earns relief in an amount equal to the difference in available RSV amount allowed for original wells in the relevant drilling depth categories, *i.e.*, 10 BCF. Hence, if a sidetrack is drilled and produced before the proposed rule to a depth of 15,000–18,000 feet TVD SS, and an original well subsequently is drilled and produces from a depth 18,000 feet TVD SS, or deeper, then the relief awarded the lease from the original well is 10 BCF [25 BCF–15 BCF]. Finally,

subsequently drilling and producing another sidetrack at a deeper depth interval may earn a full sidetrack RSV (see our Response to Comment No. 7 below) up to the amount that could have been earned in the same circumstances had an original well been drilled, *i.e.*, up to 10 BCF.

Price Thresholds: The natural gas price threshold that MMS laid out in the proposed rule came under considerable scrutiny during public review and comment. Respondents expressed concern that MMS was about to introduce a drilling incentive program under which no otherwise eligible activity would qualify for the incentive owing to actual gas prices exceeding the threshold prices.

MMS recognizes that if the gas prices existing in the summer of 2003 are expected to persist, that circumstance alone will induce significant increases in deep gas drilling. However, volatile price swings, such as those the U.S. has experienced recently, will dampen the incentive to invest in finding new reserves, even if average prices for natural gas remain high.

To test the potential benefit of different approaches to easing the disincentive created by a price threshold, MMS explicitly included gas price volatility in analysis of how much more deep drilling and production and how much less royalty collection would occur under various price thresholds. MMS used the simulation model to determine the likelihood in each year that a specific threshold price would be exceeded by the actual average yearly price, under different assumptions about price volatility. To the extent this might happen, the profitability of drilling would be adversely affected because the expected value of royalty relief is diminished as the likelihood of losing some portion of royalty relief increases in the presence of volatile prices.

To measure the effect of a specific price threshold on incremental deep gas production, we assume the level of drilling is reduced proportionately to the expected reduction in the value of royalty relief occasioned by the price threshold policy. The likelihood that gas prices would exceed the applicable threshold price helps determine the expected reduction in the value of royalty relief. In this manner we are able to revise the drilling scenario and estimate the impacts of a price threshold option on aggregate program drilling and, ultimately, production.

To measure the effect of a specific price threshold on federal royalties, we consider the revised drilling scenario in the presence of anticipated gas price volatility. Those instances where the stipulated price threshold level is exceeded result in royalty payments on otherwise royalty free production. We then value the royalties collected during those years, in conjunction with forgone royalties in other years, and adjust the base case no-threshold royalty option. Forgone royalty is the difference between royalty lost from production that would have occurred anyway without the incentive and royalty gained from extra production due to the incentive.

MMS evaluated several options under each of two approaches—delayed application of a modestly higher price threshold or immediate application of a substantially higher price threshold—to easing the price threshold policy in the proposed rule. The delayed application options fared better on achieving incremental production while the immediate application options were more effective at reducing the forgone royalty. MMS determined that a $9.34/MMBtu gas price threshold in 2004 and escalated for inflation thereafter provided the best balance of incremental production and forgone royalty under the relatively high volatility conditions prevalent in the last decade. In comparison with a no price threshold policy, we estimate the $9.34 price threshold level provides about 96 percent as much incremental production while reducing the forgone royalty by 35 percent.

Itemized Responses to Comments on the Proposed Rule

The following section gives detailed responses to 13 categories of comments which MMS received on the proposed rule from 14 separate commentors.

1. Magnitudes of the Royalty Relief for Original Wells

Comments: Overall, the industry comments supported the RSV and RSS amounts MMS provided in the proposed rule for the two drilling depth intervals. Other comments included the following: Quantifying generic RSV's is difficult because each drilling target is different. Apply the same RSS amount as for successful wells. (Chevron). We support a tiered system of RSV's (BP). The RSV's proposed are adequate (El Paso, API). The dry hole supplement is quite small given the risk and cost involved in deep gas activities (Noble).

Response: MMS believes the RSS level should be kept at a fraction of the RSV amount to avoid creating an incentive to not complete a marginally economic and otherwise successful well. In the proposed rule, MMS asked questions about different combinations of royalty relief amounts, but for the most part commenters did not address these questions or their answers weren't responsive. Therefore, MMS has no new information that would support a change in the amounts of relief by drilling depth as specified in the proposed rule.

2. Lease Eligibility

Comments: Drop the stipulation that leases with previous deep gas production not be eligible for this program. It is unclear why such leases are excluded (Pioneer). Include leases issued by the States before 1953, and subsequently ratified as Federal leases by Section (6) of the Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. 1335) (Exxon). Don't restrict the program to leases lying entirely in water depths less than 200 meters. Expand the deep gas program to deep waters (AAC).

Response: Leases that already have deep gas production are more prospective in regards to additional deep depth drilling. Accordingly, the proposed rule targeted leases where deep depth drilling previously has either not occurred or has not been successful. Nevertheless, upon further investigation, it appears that, generally speaking, success at the 15,000–18,000 foot TVD SS depths does not have a dramatically positive effect on the anticipated drilling success at 18,000 feet TVD SS or deeper. Accordingly, the final rule modifies this constraint on lease eligibility. A lease with a deep depth producing well that was drilled prior to the proposed rule is eligible for royalty relief if, after publication date of the proposed rule, March 26, 2003, an additional well is drilled to a deeper depth interval and produces natural gas. MMS discusses elsewhere the specific terms of relief and amounts available to be earned.

The omission from the proposed program of leases that were issued by the States before 1953 was inadvertent. In this final rule, these leases are now eligible for relief, along with all shallow water leases issued under Federal lease sales held before 2001.

For leases lying partly in deep water, MMS prefers to avoid a situation in which any such lease can obtain non-discretionary relief from more than one categorical royalty relief program, *e.g.*, deep-water and deep-depth drilling. The framework and parameters of each program were designed assuming no further categorical royalty relief would be provided. As of the summer of 2003, there were 132 leases issued before 2001 and lying partly in water depths greater than 200 meters which are eligible for case-by-case or categorical royalty relief

under sections 302 and 304 of the Deep Water Royalty Relief Act (DWRRA). Eighty-two of these leases were issued from 1996–2000 and are covered under the categorical royalty relief program under section 304 of the DWRRA. They are not eligible for the deep gas program. Fifty of the leases were issued before 1996, and are covered only by the discretionary royalty relief provisions of section 302 of the DWRRA, 43 U.S.C. 1337(a)(3)(c). MMS's final rule extends eligibility for deep gas drilling relief to these 50 leases, as well as to any lease issued from sales held in 2001 or thereafter without DWRRA royalty relief eligibility and lying at least partly in less than 200 meters of water depth.

3. Drilling a Deep Well Before Date of the Proposed Rule

Comments: Consider making deep wells drilled on leases with previous deep depth production eligible for relief if drilled to a substantially different depth, to new structures, or to depths at least 100 feet deeper (Pioneer, McMoran). Clarify eligibility of a well or lease if a deep well commenced drilling before March 26, 2003. If this well subsequently produces, what is the effect on eligibility for royalty relief and on any relief already earned (El Paso)? Allow eligibility for wells that commenced drilling before the date of the proposed rule if not completed by that time (API).

Response: Under the proposed rule, a lease would not be eligible for deep gas relief if it produced from deep depths before March 26, 2003. If a deep well commenced drilling before that date, and subsequently was the first deep well to produce after that date, the lease would not be eligible for deep gas relief under the proposed rule.

MMS has reconsidered our position on this issue. Our prior stance was based on the notions that (1) drilling and production before March 26, 2003, reduced the economic risk associated with further deep gas drilling, and (2) drilling before March 26, 2003, was undertaken without the need for any incentive, so the production on the lease associated with this pre-rule activity should not be eligible for relief.

MMS's modified position is that early successful drilling of deep gas does indeed reduce the risk of subsequent drilling to the same depth interval, but is much less likely to reduce the risks of drilling to deeper depth intervals. Also, MMS has concluded that elimination of relief to the entire lease from deep original wells drilled before March 26, 2003, but produced afterwards and first on the lease from deep depths, could encourage delays in the commencement of production from these wells until a subsequent well produces from deeper depths and earns relief. Hence, given these observations, MMS has made changes in the final rule.

If an original well is drilled and produces from a perforated interval the top of which is 18,000 feet TVD SS or deeper before March 26, 2003, the lease is not eligible for deep gas royalty relief. However, if the pre-March 26, 2003, drilling and production was to depths of 15,000–18,000 feet TVD SS, then subsequent drilling and production from a qualified original well at a deeper depth interval, *i.e.*, at least 18,000 feet TVD SS, is eligible for deep gas relief in a lesser amount of 10 BCF, *i.e.*, equal to the difference in RSV's for the two depth intervals. None of the production from the first (unqualified) deep well is eligible to share the relief earned by other subsequent wells.

MMS has also reconsidered its position regarding the earlier formulation wherein the first deep well sets the upper limit on the RSV a lease can earn. This approach could encourage initial drilling to a less prospective but deeper depth, in order to capture a higher relief amount for the lease.

To avoid this potential misallocation of resources, MMS structured the final rule so the total magnitude of RSV that can be earned on the lease is independent of the order in which wells to different deep depths are drilled. Thus, in the case of wells drilled first to 15,000–18,000 TVD SS, and subsequently to 18,000 feet or deeper TVD SS, the lease could initially earn an RSV of 15 BCF, followed by earning an additional 10 BCF, so the aggregate amount earned by the lease, 25 BCF, is precisely what could have been acquired under the proposed rule from drilling the deepest well first. Further, deep wells less than 18,000 feet TVD SS may use up to all the RSV earned by the lease. Note that the increment of 10 BCF for the very deep well is also precisely the same amount of relief awarded to a very deep well in the case discussed earlier where a well to 15,000–18,000 TVD SS feet was drilled and produced before March 26, 2003, or drilled before this date and produced afterwards.

It is possible that a deep well could begin drilling before the date of the proposed rule and eventually produce after another successful deep well has been drilled and produced, resulting in royalty relief. In these cases, any royalty relief previously earned is retained. However, if the well that commenced drilling before the proposed rule produces first, a later successful well to that drilling depth category that would otherwise qualify for relief does not qualify. A third well will remain eligible for incremental relief of 10 BCF if drilled to a depth interval at least 18,000 feet TVD SS, if both of the previous two deep wells were in the 15,000–18,000 foot depth range. In other words, this third well will receive the difference in RSV between the amount available in its depth interval and the amount associated with the depth interval of the two previous wells. If one or more of the two previous deep wells was drilled to the same depth interval as the third deep well, then that third well earns no added relief for the lease. It may, however, share in any relief earned by a previously drilled qualified well.

The eligibility of sidetrack drilling for royalty relief in the final rule, which we discuss in detail in the next three sections, complicates somewhat the previously described arrangements. Conceptually, eligibility of sidetracks for royalty relief works in the same way as for original wells, except that the amounts of relief that can be earned in any situation are no more than, or, more typically, are less than those for original wells.

In summary, we make the following changes for successful deep original wells:

A. If a lease has been drilled and produced from deep depths before the proposed rule, the lease may remain eligible for an RSV if another well is drilled successfully to a deeper depth category. Under the proposed rule, production from a deep well that commenced drilling before the date of the proposed rule disqualified the lease from any further royalty relief. In the final rule, only further drilling to the same deep depth interval or shallower is disqualified. Subsequent drilling and production to the next deepest depth interval may earn up to 10 BCF of added relief.

B. Because the deeper depth well may benefit from the earlier success, the magnitude of relief earned is set equal to the difference between the RSV's potentially available at the two drilling depth intervals. In the case of a lease already having produced from a depth of 15,000–18,000 feet TVD SS, a subsequent successful deep well drilled to a depth of 18,000 feet TVD SS or deeper now earns up to 10 BCF.

C. If a lease has a deep original well which commenced drilling but had not produced before the date of the proposed rule, the original well will remain ineligible to earn relief or to use relief earned by other wells. MMS clarifies that the lessee can produce from that well at any time after the lease

has earned deep gas royalty relief without jeopardizing the relief. If, however, that well produces from a depth 15,000 to less than 18,000 feet TVD SS before any qualified well produces at that depth interval, then the lease is ineligible for relief associated with that depth interval. Moreover, we add the flexibility to earn relief in the amount of 10 BCF for subsequent drilling to a deeper depth interval.

4. Eligibility of Sidetracks

Comments: MMS should amend provisions that would allow sidetrack drilling to deep depths to become eligible for royalty relief. With over 3,500 platforms, it makes sense to use a previously drilled wellbore to drill a new deep test well (NOIA). Sidetracks eligibility will encourage deep drilling at least cost (Noble, Rowan, Pioneer). Many platforms are already slot limited, so drilling sidetracks avoids costly platform modifications (ExxonMobil, Marathon, Merit). Sidetracks are also more benign to the environment because they involve less drill cuttings and lower emissions than original wells (Shell, API, ExxonMobil, Marathon).

Response: MMS agrees that including sidetrack drilling in the deep gas program is desirable. Although the average production of reserves from sidetracks is about two-thirds that of deep original wells per successful well drilling, that observation may suggest the marginal nature of certain drilling activities and their need for royalty relief incentives to undertake more of this type of drilling.

For the most part the net cost (gross cost less expected value of the royalty relief) of drilling a vertical well with royalty relief will be higher than the gross cost of drilling a sidetrack well without royalty relief. Hence, the proposed rule did not anticipate a substantial number of cases in which royalty relief for original wells but not sidetracks would result in inefficient drilling decisions. We now recognize that expanded use of sidetrack drilling presents a more important opportunity for accelerating deep depth gas production than we anticipated. Increases in the use of reclaimed slots and advancements in the technology of sidetrack drilling offer significant opportunities to extract more deep depth resources in an economical way.

Hence, we are adding sidetrack drilling to our deep gas incentive program in the same manner that relief applies to successful deep original wells, though the amounts of relief will vary in comparison to original wells. We do provide an RSS for certain types of unsuccessful sidetracks drilled to depths of at least 18,000 feet TVD SS. The minimum length the sidetrack must be drilled (measured depth) is 10,000 feet to qualify for an RSS associated with a drilling failure.

As is the case for original wells, sidetracks that begin drilling before the date the proposed rule was published are disqualified from royalty relief. If a deep sidetrack produced from 15,000–18,000 feet TVD SS before March 26, 2003, then any subsequent sidetracks or original wells to that same depth interval are also ineligible to earn royalty relief. Deep production undertaken before March 26, 2003, in the 15,000–18,000 foot interval also restricts the amount of relief that can be earned by either sidetracks or original wells drilled to a deeper depth interval to no more than 10 BCF. As with original wells, production from sidetracks that begin drilling before March 26, 2003, cannot share in any relief earned by qualified wells.

5. Defining Sidetracks for Deep Gas Royalty Relief

Comment: One comment requested clarification of the definition that MMS would use for sidetracks as compared to bypasses if a sidetrack royalty relief program is adopted in the final regulations. The commenter referred to a slide presentation on sidetracks presented by MMS at the workshop held in Houston, Texas on April 30, 2003, in which one of the slides stated that, "A sidetrack is drilled to a different target reservoir from the original well," and "A well deepened to a new target is a sidetrack." Two other related slides were also presented. A slide on bypasses stated, "A bypass is drilled to the same target reservoir as the original well," and "Bypasses are generally drilled because of a mechanical problem with the well, such as blockage or unwanted deviation." The third slide explained that, "According to the proposed rule, bypasses would be eligible for royalty suspension volumes and RSS's [as adjuncts to original wells], but sidetracks would be eligible for neither."

According to the comment, operators might infer that "* * * any well in which a plug or whipstock is set and the well subsequently drilled to a different bottom hole location with a target in the same original objective reservoir, would be classified as a bypass." The comment continues by presenting the sidetrack and bypass definitions given in NTL 2000–N07, and pointing out that there are inconsistencies between the definitions given on the slides and in NTL 2000–N07. The NTL definitions are repeated here for reference:

"Sidetrack—a drilling effort in which an additional hole is drilled by leaving a previously drilled hole at some depth below the surface and above the total depth. A whipstock or cement plug is set in the previously drilled hole, which is the starting point for the sidetracking operations. The drilling of a well after a slot reclamation (which previously had a well) is considered a sidetrack. This section of the hole is directionally drilled to a new objective bottom hole location (target). This is also called a geologic sidetrack."

"Bypass—a remedial drilling effort in which portions of a hole are redrilled around junk (*i.e.*, lost tools, pipe, or other material blocking the hole), "lost holes" are redrilled, or "key seats" or "crooked holes" are straightened. This is also called a mechanical sidetrack."

The commenter is concerned that administration of the deep gas royalty relief program for sidetracks could become complicated if different representatives from MMS do not use the same definitions to classify sidetrack and bypass drilling operations. To prevent this problem from occurring, they suggest that MMS include sidetrack and bypass operations in the same category as that for original well operations, in consideration of royalty relief under this deep gas program (ChevronTexaco).

Response: Defining sidetracks uniformly and precisely is important. MMS accomplishes this by including a reformatted version of the "sidetrack" definition given in NTL 2000–N07 in 30 CFR 203.0 of this final rule. Further, the "bypass" definition from NTL 2000–N07 is incorporated in the definitions for "original well" and "sidetrack" in the final rule to recognize that bypass operations could occur while drilling either type of wellbore.

Qualified original wells drilled with or without a bypass are already covered by the royalty relief provisions published in the proposed rule. Royalty relief is provided in the final rule for qualified sidetracks, which themselves may have a bypass. Bypass operations are defined as a remedial drilling effort, and as such do not require a special classification for royalty relief.

Under regulations in the final rule at 30 CFR 203.43(b)(2), lessees are instructed to request confirmation of the RSV size that applies to the lease from the Regional Supervisor for Production and Development, within 30 days following the beginning of production that qualifies for royalty relief. The Regional Supervisor's response also will confirm how the deep well was classified for royalty relief purposes.

Comment: Under the definition of sidetracks in NTL 2000–N07, a deep well drilled from a reclaimed surface slot could be disqualified from royalty relief because it would be classified as a sidetrack. Wells drilled from a reclaimed slot would exceed the cost of a new (original) well drilled from an open slot on a platform due to the added cost to reclaim the slot needed to drill the well. Accordingly, the commenter requested that holes drilled from reclaimed slots receive the same size RSV's as original wells (ChevronTexaco).

Response: MMS uses a reformatted definition of sidetracks from NTL 2000–N07 in the final rule without making a modification that would allow holes drilled from reclaimed slots to be classified as original wells for the purpose of royalty relief. Thus, the portion of a hole drilled from a reclaimed slot is classified as a sidetrack. MMS assumes that some operators include the expense to abandon the old well in calculating their sidetrack drilling cost. In virtually all cases, however, abandonment expenses for an old well will be incurred by the lessees regardless of whether a sidetrack is drilled from that slot. Hence, MMS views these abandonment expenses as sunk costs. In fact, when reclaiming a slot, lessees should be able to save the cost of drilling and casing the portion of the well that is reused.

MMS recognizes that sidetracks drilled from reclaimed slots will be among the longest and most expensive of all sidetracks drilled because the kick-off point will be at a shallow depth. However, the variance in sidetrack costs with length has been taken into account in calculating the sidetrack RSV's. The final rule contains a variable RSV scale for sidetracks, that will be applied to typical sidetracks and to well bores drilled from reclaimed slots. A sidetrack theoretically could earn as much RSV as an original well that is drilled to the same depth, but it would have to be a very long sidetrack, *e.g.*, over 18,350 feet of measured depth if drilled to 15,000–18,000 feet TVD SS, and 35,000 feet of measured depth if drilled to 18,000 feet TVD SS or greater.

Comment: Another comment refers to an MMS workshop presentation that suggested to some observers that a sidetrack will be classified as a bypass when the operator abandons a new well completion after testing and then sidetracks to obtain a greater gas recovery. The sidetrack target would be at a bottom hole location higher on the geologic structure, but in the same reservoir. An inequity could result from the situation described because bypasses are not eligible for relief under the proposed rule. Moreover, if sidetracks were eligible for relief in the final rule, the size of the RSV may not be as large as the RSV for original wells. The commenter suggests that MMS allow a sidetrack to receive the same size RSV as an original well if the sidetrack is drilled to replace that well (ChevronTexaco).

Response: Inclusion of a "sidetrack" definition reformatted from NTL 2000–N07 and a definition for "original well" (replaces "new well" definition in the proposed rule) in the final regulations should clarify that all subsequent sidetracks would still be considered the original well, if the sidetracking operations were conducted prior to the rig moving off the well location. Also, bypasses from an original well or sidetrack are still considered the original well or sidetrack.

Sidetracks do receive an RSV as specified in 30 CFR 203.41(a) of the final regulations. In cases where a sidetrack is drilled to the same depth interval as a qualified original well that produced more than test production (and the original well therefore already has earned the lease's RSV at that depth interval), the sidetrack may share in the relief previously granted. If the original well produces only test production, the sidetrack will earn its own RSV. If a sidetrack is drilled to a deeper depth interval than an original deep well, even after the original well produces more than test production, it earns a sidetrack RSV in addition to the RSV earned by the original well. In cases where an unsuccessful original well is drilled 18,000 feet TVD SS or deeper and then a deep sidetrack is drilled from the original well, an operator could receive an RSS for the original well in addition to earning a sidetrack RSV or even another RSS for that sidetrack if it is unsuccessful. Wells incapable of more than test production are not considered successful wells.

6. Sidetrack Relief Amounts for Successful Drilling

Comment: Sidetrack RSVs should be 10 BCF in 15,000–18,000 feet and 20 BCF for greater than 18,000 feet (Noble). A reduced sidetrack RSV of 3–5 BCF would be enough to spur drilling of marginal prospects (Merit). Royalty relief for sidetracks should not be differentiated by the depth of the associated original well or by offset distances (El Paso, ChevronTexaco). Use smaller RSVs for sidetracks than for original wells, but don't limit assessment to a comparison of costs—risk matters too. Don't limit sidetrack relief to depths greater than 18,000 feet, and apply the same RSS as in the proposed rule for deep original wells (ChevronTexaco).

Response: Although sidetrack drilling to deep depths represents only a modest proportion of recent drilling and production activity, that relationship could change considerably depending on the configuration of the royalty relief program. Accordingly, MMS decided to add eligibility of sidetrack wells to our deep gas program.

MMS's objective is to provide a proper incentive to encourage additional sidetrack drilling into deep depth targets whose potential reserve size would result in a marginally unprofitable development under existing royalty obligations. At the same time, MMS wanted to eliminate any potential for inefficient drilling decisions resulting from a distortion in the relative net costs of drilling vertical wells versus sidetracks.

MMS conducted an analysis of the expected full-cycle cost of drilling sidetracks of different lengths versus the cost of drilling original wells, accounting for the chance of drilling success. MMS also reviewed a very preliminary API draft study that estimated the marginal cost of drilling per foot of measured depths (lengths) drilled for sidetracks. However, because of very different methodologies (*e.g.*, the wells and sidetracks in the API study were drilled to all depths, and API used a statistical approach compared to the engineering model MMS used), the results are not directly comparable.

MMS identified a mathematical function for a sidetrack RSV which would result in approximately equal value of the RSV relative to the cost of drilling sidetracks and original wells on a before- and after-royalty relief basis. That is, the ratio of expected drilling costs net of royalty relief for both well types would be the same as the ratio based on drilling costs alone. This equivalence assures that drilling decisions are not distorted between well types by the royalty relief program.

The functional form for sidetrack relief that MMS derived is this: the RSV is equal to 4 BCF plus 0.06 BCF per 100 feet of measured depth drilled, *i.e.*, sidetrack length. The sidetrack relief is limited to the amount an original deep well could earn if produced in the same lease circumstances, *i.e.*, up to 15 BCF for the first deep well produced between 15,000–18,000 feet TVD SS (the "shallower depth category") or up to 25 BCF for the first deep well produced 18,000 feet TVD SS or deeper (the "deeper depth category"). In cases where deep production has already

occurred on the lease from the shallower depth category, drilling and producing a sidetrack in the deeper depth category can earn the full sidetrack RSV amount, but again, no more than an original well could earn in the same situation, equal to 10 BCF.

As discussed further below, sidetrack drilling can also generate a royalty suspension supplement (RSS) for an unsuccessful well under the same circumstances as an original unsuccessful well that has a perforated interval in the 18,000 foot TVD SS or deeper interval, with one additional condition, namely the sidetrack length must be at least 10,000 feet (measured depth). This requirement is imposed to preclude any incentive to drill short distances simply to earn an RSS. As with original wells, the sidetrack RSS is equal to 20 percent of the RSV that would have been earned by a successful sidetrack subject to a limit of 5 BCF, which is the RSS that would have been earned by an unsuccessful original well drilled to 18,000 feet TVD SS or deeper.

7. Production Start-Up Requirements

Comments: Five years is too short a time to explore and produce deep gas reserves, especially if drilling to deep depths must be from means other than an existing platform or if there is a need to build a pipeline (BP, Noble). Five years is not long enough to conduct activities and start production given the existing technological challenges (API). Provide for an extension on a case-by-case basis, when additional time for activities is justified (NOIA). Revise the rule to allow royalty relief for any otherwise qualified deep well if that well subsequently produces. This would account for unavoidable delays for weather, rig installations, and other reasons largely beyond the fault of the operator (El Paso).

Response: For leases issued beginning in 2001 with deep gas royalty relief provisions in the lease terms, the lessee must begin production from a deep well within 5 years of lease issuance. MMS believes it would be unfair to allow more than 5 years from the date of the final rule to begin production from a qualified well on leases many of which are further advanced in development than leases issued beginning in 2001. MMS therefore is allowing 5 years from the effective date of the final rule. MMS believes it is important to strongly encourage accelerated production, not just drilling, given the current state of the domestic natural gas market.

Nevertheless, in the interest of fairness, MMS has decided to allow some flexibility to extend this deadline for up to 1 year if MMS determines that the reasons for the delay are beyond the operator's control. For MMS to consider an extension, the operator has to demonstrate that he drilled to total depth within 5 years, that the delay through no fault of the operator occurred after reaching total depth, and that production otherwise could reasonably have been expected to commence within 5 years.

8. Unitization Comments and MMS Responses

Comment: One comment indicated that the proposed rule offered "confusion and ambiguity" about the treatment of unit and non-unit deep wells on the same lease. Specifically, it indicated that § 203.41(b)(3)(ii) is not only confusing but it seems ambiguous in that you could have a "first successful qualified deep well on your lease" when there is already another deep well "on your lease" (Noble).

Response: The referenced § deals with a lease that has both a unitized and non-unitized area within the lease. The language in the proposed rule stated that a lease, whether or not it is in a unit, earns an RSV only by drilling a qualified well, and that a subsequent deep well on that lease or any other leases in the unit does not earn an additional RSV for that lease. In other words, production is allocated among the leases in a unit; the royalty suspension volumes are not. This feature has not changed under the final rule. A related provision of the proposed rule—that the first qualified well on that lease determines that lease's final RSV—has been modified in the final rule.

The final rule adds the proviso that if the first qualified well is drilled to the shallower drilling depth category (15,000–18,000 feet TVD SS) and a subsequent qualified well is drilled to the deeper drilling depth category (at least 18,000 feet TVD SS), then the RSV earned by the lease will be increased pursuant to § 203.41(b).

MMS has rewritten the parts of §§ of 203.41 and 42 dealing with unitized and non-unitized wells on the same lease in two ways to clarify their meaning. A qualified well drilled in the unitized or non-unitized portion of the lease, after the first qualified well on a lease, earns for the lease an increased RSV only if it is drilled to a deeper depth category. Further, both the production from any qualified well on the non-unitized portion of the lease and the production allocated to the lease from qualified unit wells, will share in that lease's RSV.

Comment: The unitization proposal may actually provide a disincentive to drill wells on a unit basis. For example, if two leases are combined on a 50/50 basis to form a unit to test a prospect at 17,000 feet and it is anticipated that only one well will be necessary, the unit owners could conclude that the discovered reserves would have to be at least 30 BCF to allow each to receive the full incentive versus 15 BCF if the prospect were on one lease only (Noble).

Response: The rule provides an RSV as an incentive to drill a deep well. In the example, if the prospect was only on one lease, the owner(s) would get an RSV of 15 BCF for the deep well. If the prospect overlaps two unit leases, and one deep well is drilled, again the rule only provides one RSV of 15 BCF that goes to the lease with the deep well.

MMS's customary unitization policy affects the use of lease-based deep gas royalty relief in two ways. First, when a deep well penetrates a new reservoir and proves to be commercially producible, unit co-owners typically will revise the existing participating area for that reservoir based on available geological information. (The participating area percentages may be revised in light of the results of subsequent drilling activities.) Production from the reservoir will be allocated according to the participating area percentages. Because of this rule, MMS will require unit co-owners to establish a separate participating area for reservoirs produced by one or more qualified wells. The percentage allocated to a lease with a qualified well producing from that participating area will be subject to the RSV for that lease.

Second, in the case where all the unitized leases have shallow wells but only one lease has a qualified well located in a reservoir that geological information indicates is common with all the leases, the unitized leases without a qualified well will receive allocated production from the qualified well and royalty will be due on this production. Only deep well production allocated to the unitized lease with the qualified well would be royalty-free. In the example described in the comment if the well qualifies for deep gas relief, then it is accurate to say that production from the well must be at least 30 BCF for the lease with the qualifying well to receive the entire 15 BCF of relief.

To resolve the problem of not getting the relief as soon as possible in the above example, MMS stated at the Deep Gas Royalty Relief Workshop in Houston, Texas on April 30, 2003, that it would consider not allocating deep production for royalty purposes to a unitized lease without a qualifying well. Since this deep depth allocation would diverge from the way shallow depth production on the same unit is allocated

for royalty purposes and from the way production is allocated from both shallow and deep wells for units without deep gas relief, MMS discarded this idea as an unnecessary source of confusion and administrative complexity. Therefore, for the final rule, MMS has decided not to revise its customary unitization policy. The unit working interest owners could still allocate production and share benefits under separate agreements to offset any imbalances they perceive from royalty relief going only to the unit participant with the deep well.

Comment: MMS is promoting the drilling of unnecessary wells in order for all leases in a unit to receive royalty relief. For example, suppose a four-lease unit exists, but only the lease with the completion receives the royalty suspension volume. The remaining three un-drilled leases do not share in the royalty suspension volume. The reservoir can be efficiently drained without drilling extra wells, but the un-drilled leases won't be entitled to any royalty free production on their allocated share of production unless they drill unnecessary wells. Allow the MMS the discretion to grant royalty suspensions for each lease in the unit after determining a successful well is not necessary to be drilled on each lease in the unit to develop efficiently the discovered reservoir (ChevronTexaco, Noble).

Response: The rule provides an incentive to drill a deep well. The RSV was based on the cost of a single deep well. Under the approach suggested in the comment, the owners could receive four RSV's (60 to 100 BCF) as an incentive for drilling one deep well, which is far more relief than the program intended.

Also, the proposal in the comment would require a reservoir interpretation and analysis by MMS. To avoid differences of opinion in this area, MMS considered and rejected a potential requirement for new leases issued beginning in 2001 that the deep well must produce from a new reservoir, *i.e.*, one that has not previously produced on any current lease. If MMS decided to utilize reservoir interpretations and analyses as proposed in the comment, then MMS would be inclined to include this "new" reservoir requirement in the regulation. In that event, the unitized leases in the example without a deep well would not be eligible for an RSV even with the drilling of a deep well into the reservoir. Furthermore, without subsurface well control on the three leases, MMS would not make a determination about whether or not additional deep wells are necessary for efficient development of the discovered reservoir.

Finally, as in the previous unit comment and response, unit co-owners may agree separately to adjustments to share the royalty relief benefits.

Comment: Another comment recommended that in any unit the RSV should be allocated in proportion to the royalty obligations in the unit agreement (API).

Response: MMS carefully considered and rejected this approach for several reasons. In some cases, the RSV cannot be allocated like production. A number of units contain State or Federal leases not eligible for deep gas royalty relief. Ineligible Federal leases in a unit might include those leases in water deeper than 200 meters or with deep well production from a well with a perforated interval the top of which is at least 18,000 feet TVD SS before March 26, 2003. Other units may contain leases issued after January 1, 2001, which have deep gas royalty relief with different magnitudes and lease provisions.

Using the lease-based approach also results in significantly less administrative burden. If the RSV were allocated, several allocations beyond the initial allocation may be needed—for example, if a new well leads to a change in the acre-feet shares assigned to each participating lease. Also, if royalty relief were allocated, the drilling of the first qualified well on each unitized lease would require a separate calculation of the remaining RSV and a reallocation of the revised suspension volume. In addition, when production data is updated, "look-backs" would be needed to confirm the accuracy of the reallocation or make necessary adjustments.

9. Price Thresholds

Comments: Raise the threshold or eliminate it to reduce or remove uncertainty about the availability of royalty relief. Don't count production against the RSV in periods when the price threshold is exceeded by actual prices (Noble). Price thresholds incur reporting and accounting difficulties and add complexity and uncertainty (Marathon). We believe price thresholds should be avoided. When prices are rising, lessees should be afforded the full suite of available incentives to meet demand. To eliminate the incentive in the face of tightening supplies is exactly the opposite of what should be done. Given the expectation of falling prices, lessees could time production and thereby delay drilling to periods of future royalty relief. With May 2003 prices above the threshold, there is no incentive to drill deep gas this year (Pioneer). The price thresholds impose barriers to effectively stimulate deep gas exploration and development. Accounting rules preclude royalty relief that might have to be paid back from being included in company income statements. To reduce investor uncertainty, do not count production against the RSV when prices exceed the threshold. Allow royalty relief up to the threshold price, and pay royalties on the extra revenues generated above the threshold price (El Paso).

Response: At the time MMS was preparing the proposed rule, natural gas prices were in the range of $3.50 per MMBtu. During the summer of 2003, as MMS prepared the final rule, natural gas prices were in the range of $5.50 per MMBtu, *i.e.*, above the threshold price levels expected for 2003. The price threshold level suggested in the proposed rule was based on price expectations that prevailed at that time, on historic price volatility, and on revenue considerations. That is, the level was set so that the loss of royalty relief occasioned by higher-than-expected gas prices would be more than offset by the higher realized gas prices. Since that time, however, gas prices have surged and EIA projections for future average gas prices have risen as well. Moreover, we've noted a distinct pattern for gas prices to show considerably more volatility in recent years compared to historic trends. As a result, we conducted an in-depth analysis to determine whether the incremental production effects of the deep gas royalty relief program would be adversely influenced by retention of this earlier proposed price threshold formulation. This analysis incorporates the important influence that price volatility can have on the drilling incentive and on royalty collections. The results, provided in the economic analysis to this rulemaking, showed that there would be significant degradation in incremental program benefits from retention of the price threshold formulation offered in the proposed rule.

The current expectations for the gas market are for higher, more volatile. future prices compared to earlier expectations reflected in the proposed rule. The higher prices should lead to increased demand for drilling equipment and larger capital expenditures for exploration and production of additional gas supply. However, supply of capital equipment generally does not respond as quickly as demand, leading to increased prices for costs of acquiring the needed capital equipment to expand production. As a

result, OCS operators may not fully benefit from increased natural gas prices when such increases are rapid and may not be sustained.

The incentive provided by this rule remains a significant tool to promote deep and costly drilling regardless of market prices. These revised base cases and incremental outcomes have been incorporated in the economic analysis and demonstrate the continued viability of relief and the need to adjust the price threshold formulation.

In light of these observations, MMS concludes that (1) the previous revenue relationships may not apply in the current circumstances, and (2) the effect of the higher gas prices on drilling decisions may be dampened in the short term by the proposed price thresholds, and (3) despite added supplies offered at higher prices, program benefits from providing royalty relief in the amount, form, and time described in this rule remain substantial. Accordingly, MMS agrees with the comments that some response is needed to modify the price thresholds in light of the current and revised expectations about future gas market conditions.

The final rule revises the original price threshold provision by raising the market price level which suspends royalty relief from $5 per MMBtu (expressed in year 2000 dollars) to $9.34 per MMBtu (expressed in year 2004 dollars). When expressed in same year dollars, this represents a 70 percent increase in the price threshold. The threshold price rises at the full increase in inflation in subsequent years. MMS compared incremental production and forgone royalty estimates for a variety of price thresholds using a calculation that accounts for the effects price volatility can have on the incentive. The specific revised price threshold level now chosen poses a small risk that the price threshold will be exceeded. However, if this price threshold is violated, then the forgone royalty would be substantially less, in part because gas prices would be so high. Because the chance of violation is low, the chosen policy should have only a minor effect on drilling and discoveries compared to the absence of a threshold while adequately protecting taxpayers from lost revenue should gas prices escalate more than now expected. The economic analysis for this rulemaking examines a variety of different price threshold options.

10. Scope of Royalty Relief for Leases

Comment: Allow royalty relief in the proposed amounts by block, not lease (McMoran, El Paso).

Response: Please see responses to comment numbers seven and eight. The royalty relief program MMS designed is lease-based. Because the offshore oil and gas program is administered mostly by lease, the lease'based formulation of royalty relief allows for a convenient interface with the existing regulatory structure. Moreover, under this stipulation almost all shallow water leases are subject to similar provisions of deep drilling royalty relief.

In contrast, there were only 72 leases (1 percent) having more than one block, and only 9 leases with more than 2 blocks in the summer of 2003. In almost all cases, the extra blocks were only portions of normal size blocks where it was most practical to combine into one lease for bidding in a lease sale. Thus, the lease area for most multiple block leases is close to that for single block leases. In the unique case where a lease contains several blocks and is significantly larger than a normal lease, further relief may be appropriate under the special case royalty relief provision (30 CFR 203.80). Modification of the program to accommodate relief on a block basis is not appropriate.

11. Defining Drilling Depth Interval Requirements

Comment: Utilize drilling depth to a pre-defined target instead of to the top of the perforated interval to define the classification of a deep well. Otherwise, the definition in the proposed rule may encourage poor decisions on completion activities in order to qualify for relief (Pioneer).

Response: "Drilling depth to a pre-defined target" is an uncertain measure because seismic data are used to define the drilling objective. In contrast, the "top of the perforated interval" is an exact measurement of the location of productive hydrocarbons.

Moreover, MMS believes that the differences between the proposed and suggested definitions will have significance for royalty relief in only a limited number of cases, for instance, where the reservoir target happens to straddle the 15,000 foot TVD SS or the 18,000 TVD SS depth. MMS further believes that in those few cases, operators will base their completion decisions on sound engineering practices and will be reluctant to qualify their wells by making poor completion decisions.

To remove some uncertainty, the final rule is explicit about the treatment of the RSV in the situation where a single well involves multiple leases. Where a (directional or sidetrack) deep well begins on one lease but is completed on a second lease, then the production from, and any royalty relief earned by, the qualified well belongs to the second lease. If the qualified well has separate perforated intervals (either of which would qualify) on two leases, then the lease with the perforated interval that produces first earns the royalty suspension volume. Finally, if the perforated interval of the qualified well extends across two leases, then the lease where the surface of the well is located earns the RSV. These procedures avoid allocating or doubling up on RSV and are consistent with the treatment of royalty relief in a unit situation.

12. Ultra-Deep Depth Drilling Category

Comment: The bulk of deep gas drilling opportunities is below 20,000 feet TVD SS. MMS should provide at least an RSV of 45 BCF for successful drilling to this depth (BP). We would like to see a third tier of relief for ultra-deep drilling. Many companies believe the real targets of opportunity lie below 20,000 feet TVD SS. The difference in cost to drill 18,000 feet versus 20,000 feet TVD SS is dramatic. We think an RSV of 35 BCF is appropriate (NOIA). We support an RSV of 35 BCF for drilling below 20,000 feet TVD SS (Noble, Rowan, Marathon).

Response: The anticipated royalty savings associated with drilling a qualified very deep well successfully, *i.e.*, to at least 18,000 feet TVD SS, is more than $20 million at gas prices in the summer of 2003. MMS believes an incentive of this size is appropriate at this time for accelerating drilling below 18,000 feet TVD SS, as well as below 20,000 feet TVD SS. The fact is that very little drilling has taken place so far at either drilling depth in shallow water. Data since 1998 show 249 deep wells were drilled. Of these, 17 percent were to at least 18,000 feet and 7 percent to at least 20,000 feet. Overall the success rate was 8 percent, although it was higher at the ultra-deep interval. Because of the sparse data, it is difficult to predict accurately the true chances of drilling success, the potential size of discoveries, the cost of drilling in ultra-deep depths, and thus the additional production likely from an increment to the available RSV. Moreover, adding this third tier of relief will complicate the regulatory requirements and delay publication of the final rule. MMS will continue to consider the need for granting increased royalty relief for ultra-deep wells, but it is premature to do so in this rule.

13. Auction Mechanism

Comments: The industry was unanimous in its opposition to a bidding system offered for possible future use that would serve to distribute the rights to deep gas royalty relief.

These rights would have to be acquired before drilling of a designated nature, such as discussed in this final rule, could become eligible to earn royalty relief. Regardless of whether the bid variable was a cash bonus or the RSV (or RSS) amount itself, comments indicated that such a system could have perverse and unintended consequences.The system would appear to benefit primarily those wells that would be drilled anyway (BP). It would defeat the purpose of the rule by denying relief to those who need it most and it would delay drilling and reduce the number of total wells drilled (NOIA). Winning bidders would not necessarily use the property rights acquired to drill deep wells (Rowan). It introduces uncertainty that could inhibit planning activities necessary for deep drilling success (Exxon). The program has no benefit and numerous pitfalls that could undermine the deep drilling initiative (Marathon). The bidding system would not accelerate development of deep gas (El Paso). The system could eliminate certain lessees from competing for the incentives (ChevronTexaco).

Response: MMS recognizes that adoption of a bidding system to distribute royalty relief is, at best, premature. Typically, an auction is an efficient mechanism to ensure that the item being sold goes to the party that values the item most highly, and in conjunction with enough competition, yields a fair return to the seller. As envisioned, the MMS proposed auction would result in the government forgoing the same total amount of royalty payments as expected for this rule, but may result in more drilling by awarding less royalty relief to those companies that need a smaller incentive, therefore freeing up a larger quantity of relief to be allocated to those companies that would require more relief than is granted in this rule to undertake deep drilling.

Unlike this rule, which essentially allocates the same quantity of relief regardless of actual need, in theory there should be an auction framework capable of allocating variable amounts of royalty relief based on need. MMS recognizes that the ability of an auction mechanism to achieve this goal would depend on, among other considerations, a design framework that could discourage a bidding scenario in which relief is allocated to those who need it least, and awarded to those least likely to utilize it. An auction procedure with these characteristics has not yet been developed; hence more research is needed in this area. So, implementation of the deep gas royalty relief program will proceed without an auction feature.

Procedural Matters

Regulatory Planning and Review (Executive Order 12866)

According to the criteria in Executive Order 12866, this rule is a significant regulatory action for which a Regulatory Analysis has been prepared. The Office of Management and Budget (OMB) has made that determination under Executive Order 12866.

(1) The preferred alternative adopted in this rule will have an economic effect of $100 million or more by reducing consumer expenditures on natural gas by about $500 million each year and may have a slightly adverse effect on other units of government. An economic analysis of this regulatory action was prepared and will be available at *http//www.mms.gov/econ.* This rule reduces royalties for lessees that drill and produce natural gas from deep wells in shallow water areas of the GOM. The RSV's offered should increase deep drilling activity on existing leases over the period of the program and make additional resources economic. The deep gas royalty suspensions are likely to reduce net Federal royalty collections. MMS's best estimate of this reduction is from $150 to $220 million in net present value over a 16-year period, depending on gas price volatility.

The royalty relief program for deep gas drilling will have two distinct effects: (1) recovery of some otherwise uneconomic gas resources, and (2) accelerated recovery of some marginally economic gas resources. MMS data indicate that about 10–20 percent of the undiscovered gas resources in the most prospective depths, *i.e.*, 18,000 TVD SS or deeper, could be converted from unprofitable to profitable by the incentives provided in this rule. MMS estimates that those resources are located in approximately 20–30 percent of undiscovered gas reservoirs.

MMS estimates that about one-fourth of the economically explorable gas reservoirs at drilling depths 18,000 feet TVD SS or deeper would be drilled 1–5 years sooner if the proposed rule is implemented. These reservoirs are associated with less than 10 percent of the undiscovered resource. MMS estimates that application of the program to undiscovered gas resources at depths 18,000 feet TVD SS or deeper could increase production of gas by over two TCF. Application of MMS's proposed program to reservoirs in the 15,000 to less than 18,000-foot TVD SS range of drilling depth could affect another 1–2 TCF of gas. The deep drilling program will affect only a part of these resources in any one year.

(2) This rule will not create any inconsistencies with actions by other agencies because royalty relief is confined to leasing in Federal offshore waters that lie outside the coastal jurisdiction of State and other local agencies. Careful review of the lease sale notices, along with stringent leasing policies now in force, ensures that the Federal OCS leasing program, of which royalty relief is only a component, does not conflict with the work of other Federal agencies.

(3) This rule has no effect on entitlements, grants, user fees, loan programs, or their recipients. However, the rule does have the effect of postponing distributions of royalty revenue. MMS distributes about 1 percent ($40 million) of the OCS revenue it collects annually in the GOM to neighboring States under Section 8(g) of the OCSLA. Royalty suspensions from the deep gas program could affect up to 5 percent of the total production from the GOM in any one year. If deep gas production occurs in the 8(g) zone at the same proportion as elsewhere in the GOM, these State distributions could be reduced by $1 to $2 million per year for 5–10 years. However, extra production that occurs because of the incentive will also provide extra royalties, mostly after the RSVs have been produced. Given uncertainty about the number, location, and size of deep gas discoveries, it is even possible that the extra royalties could fully offset the initial drop in both Federal and State royalties. This would occur if our program generates 25 percent more incremental gas resources than the most likely scenario evaluated in the Economic Analysis.

(4) This rule raises a novel legal or policy issue. The RSS for an unsuccessful deep gas well expands the scope of royalty relief to reward efforts for exploration in frontier well depths whether or not they eventually produce. As explained in the preamble to the Proposed Rule (68 FR 14868), MMS believes this creates a more cost-effective royalty relief program compared to one that only rewards success in this very risky environment. Also as explained in the economic analysis accompanying the proposed rule, several features of the rule essentially eliminate any moral hazard potential of the RSS.

In addition, RSV's have been used for several years as an incentive to accelerate exploration and production in deep-water. Application to deep gas is a logical extension of that policy. A well-defined program for deep gas drilling is more administratively efficient than the elaborate case-by-case

requirements of the application process for deep-water royalty relief. The focus here is on a straightforward definition of well depth and circumstances to qualify for royalty relief.

MMS developed an economic analysis of this regulatory action in accordance with requirements for a major rule under OMB and statutory criteria. This analysis describes why market forces alone will not increase deep gas development in the short term, considers possible royalty relief alternatives to serve that need, and analyzes the social benefits and costs and related transfer payments associated with several royalty suspension alternatives. Two options provide the highest level of added production and net social benefits:

A. The RSV in this final rule of 15 BCF for successful wells to 15,000–18,000 feet TVD SS and 25 BCF for successful wells (or 5 BCF for unsuccessful wells) to 18,000 feet TVD SS or deeper depths, plus reduced amounts for deep sidetracks and for deeper wells on leases that have deep wells, and

B. As in option A, but limiting RSV to 10 BCF for successful wells to 15,000–18,000 feet TVD SS and to 20 BCF for successful wells (or 5 BCF for unsuccessful wells) to 18,000 feet TVD SS or deeper.

These two options were selected over other alternatives considered in the proposed rule that included higher suspension levels as a substitute for royalty relief for unsuccessful drilling.

MMS ranked alternatives based on estimates of their net social benefits. Net social benefits are the sum of the net gains to producers and consumers associated with the additional production attributable to this rule. These gains are measured as changes in consumer and producer surplus compared to a status quo or baseline amount that would occur in the absence of the incentive. Consumer surplus is the difference between the value consumers place on the additional production and its market value. Producer surplus is the difference between the market price and the cost of additional production (including the cost of drilling unsuccessful wells). Transfer payments, on the other hand, consist primarily of changes resulting from the rule in the amount of Federal royalty payments and domestic expenditures to purchase status quo quantities of gas. This summary reviews the performance of the superior options based on several criteria: added production, forgone royalty, and net social benefits from production that would not have occurred without an incentive for deep gas drilling. The comparison of alternative incentive levels reported below were made with updated EIA gas price forecasts but omit the dampening effects of a potentially binding price threshold. The relative effect of alternative price threshold options is largely independent of the RSV level and hence plays little, if any, role determining the choice between alternative levels of the RSV.

MMS estimates that option A, the royalty suspension level adopted in the final rule, would generate a cumulative added production of 3.8 TCF of gas and 0.81 TCFE of condensate over the next 16 years (before considering the slight dampening effect a potentially binding price threshold may have on incremental production). In contrast, option B would generate added production of 3.3 TCF of gas and 0.71 TCFE of condensate over the same time frame (again ignoring the price threshold effect). Added production consists of production from reservoirs unlikely to be drilled under normal conditions and from a portion of reservoirs only likely to be drilled in the future after information, technology, and costs improve, *i.e.*, accelerated production.

Using assumptions about prices, discount rates, and well flow rates, MMS estimated the net social benefits to society from increased deep gas production. As discussed above, this primary measure of social welfare effects eliminates the sizeable transfers from producers to consumers associated with reduced prices, and from government to producers in the form of reduced royalty payments. The incremental supply added to domestic stocks as a result of the incentive generates a net gain to society. Under option A, the adopted incentive, MMS estimates a net social gain of $290 million in present value versus $238 million under option B.

Comparing increased production to forgone royalty-bearing production provides another perspective on the effects of the rule. MMS estimates that royalty would be forgone under option A on 2.8 TCFE of gas and oil production that would have occurred anyway. That implies a ratio of extra production to forgone royalty-bearing production of 1.64 [(3.8 TCF + 0.8 TCFE)/2.8 TCF]. For option B, this ratio is also 1.74 [(3.3 TCF + 0.7 TCFE)/2.3 TCF]. Hence, either of these deep gas incentive options is preferable to no such incentive.

Some of the forgone royalty would be offset by royalty collections on the condensate and on added gas production after the royalty suspensions have been used. Taking those into account and distributing the production over the next 16 years, MMS estimates a net reduction in present value of royalty receipts of $227 million under the proposal versus $37 million for the second alternative. These results suggest that option B provides only about 85 percent of the production effects and the net social benefits of option A. Option B costs only about 20 percent of the forgone royalty revenues as option A.

Regulatory Flexibility (RF) Act

MMS chose the incentive form that combines an RSV for successful deep gas wells and an RSS for unsuccessful deep wells for three reasons:

(1) It is large enough to generate substantial deep drilling activity;

(2) It is the most cost-effective incentive structure for the Government because it does not waste as much relief as alternatives on prospects that will be drilled anyway; and

(3) It concentrates most of the incentive on the very deep (18,000 feet or deeper subsurface) zones where MMS believes most of the undiscovered potential is to be found.

A detailed analysis of the small business impacts and alternatives considered can be found in the economic analysis of this regulation which is available at *http://www.mms.gov/econ*.

Companies that extract oil, gas, or natural gas liquids, or are otherwise in oil and gas exploration and development activities and operate leases on the OCS, will be most affected by this rule. Of the approximately 130 such companies active offshore in the GOM, we estimate that as many as 91 (70 percent) companies qualify as small firms.

Because this program is administered on a categorical rather than an application basis, minimal administrative time and cost is needed to qualify for royalty relief. Since no special analysis or independent review would be necessary to accomplish these compliance activities, MMS sees very little burden on normal operations of either small or large companies. For this rule, paperwork costs are only 1/10 of 1 percent of benefits and are the minimal cost necessary to allow for the monitoring essential to a consistent administration of this program across all participants. While administrative costs are the same for all the categorical incentive alternatives, the benefits are different. The alternative MMS chose results in the largest benefit to producers and to the small entity share of producers. Further, two reasons (risk sharing and location advantages) suggest that small OCS entities could get a

disproportionate share of the large benefits of this rule.

The RSS feature improves the ability of small companies with limited drilling programs to spread their risk. Success on one or two of many deep wells that a large operator drills in a given period can pay the costs incurred for the unsuccessful wells. Small operators may be able to drill only one or two deep wells in a given period. The RSS can reduce the net cost of unsuccessful deep wells immediately, so the small operator does not necessarily have to wait for a deep well success in a later period to offset at least some unsuccessful exploration costs. This is a feature not found in any of the alternative categorical incentive structures which confer royalty relief only on successful wells.

Because of the risk, high cost, and technical complexity, MMS expects most lessees/operators involved in exploration and development in deep drilling depths of the GOM to be large companies. However, the location eligible for deep gas royalty relief is in shallow water, where one expects to find relatively more small operators compared to those found in deep water. Thus, relatively more of those OCS operators who will benefit from the deep gas incentive in this rule may be in the small business category than those who benefit from deep-water royalty relief. For these reasons MMS believes this rule is likely to provide at least a proportionate share of its benefits to small businesses. Compliance guides to assist both small and large entities, including the presentation slides used in the industry workshop held in April, 2003 and the summary Table 1 from this document, will be available on the MMS website for the duration of this program.

Small Business Regulatory Enforcement Fairness Act (SBREFA)

This rule is a major rule under 5 U.S.C. 804(2), the SBREFA. This rule:

(1) Does have an annual effect on the economy of $100 million or more. This rule introduces a royalty relief program for deep gas that will save consumers $500 million annually for about a decade, of which about $19 million is a gain in consumer surplus attributed to additional gas consumption. Also, there is a gain in producer surplus of over $12 million annually that otherwise would not have occurred as well as additional industry employment. The change from the status quo in royalty collected by the Federal government under the revised rulemaking would exceed the $100 million per year threshold in 10 out of 16 years in which meaningful amounts of program-related production are generated. This incentive will cause Federal royalty to be reduced by more than $100 million during each of about 5 years early in the program and to be increased by more than $100 million during each of about 5 years late in the program. The benefits of the rule on the economy more than offset the net royalty losses. A comparison of two types of production provides a proxy measure of this net social benefit. MMS estimates the magnitude of new gas production that ultimately occurs because of the incentive in the rule is about 1.5 times the size of gas production on which the government forgoes royalty. The government only forgoes royalty on that portion of production that would have occurred anyway without the incentive. Moreover, consumers of natural gas will benefit from additional domestic gas supplies and have lower market prices.

More lessees may take advantage of the new deep gas royalty relief provisions over the next few years than have ever applied for end-of-life or deep-water royalty relief. However, the incremental drilling and production induced by this royalty relief will be small relative to total gas drilling and production in the GOM. The main thrust of the initiative is to increase and help accelerate new gas production to promote timely production otherwise inhibited. Even a small moderation of prices due to added deep gas production would result in a significant savings in gas expenditures and dampen natural gas prices in the market. Further, the rule would impose no costs on any local or private entity, but may initially impose some small costs ($1 to $2 million per year) on Gulf Coast States in the form of reduced payments under section 8(g) of the OCSLA. However, production that otherwise would not occur will result from these incentives. That production will produce extra royalty payments, mostly after the RSV has been produced. Participation in the program by lessees is voluntary.

MMS considers the key adverse economic effect of this program, with regard to the $100 million dollar annual benchmark, to be forgone Federal royalties on deep gas production that would have been generated without this program. Lower royalties mean more taxable income to companies. However, the results cited in the discussion accompanying this rule measure the effect on forgone Federal revenues without consideration of tax receipt increases. Note that this is a transfer payment in that the government loss is also an operator gain from pursuing a socially desirable activity—deep gas production.

MMS forecasts that without the deep gas royalty relief program, 53 wells would be drilled annually to depths of 15,000–18,000 feet TVD SS and 24 wells to drilling depths below 18,000 feet TVD SS. Based on trends in drilling deep depths during the past 10 years in shallow water, MMS would expect 18 successful wells in the 15,000–18,000 feet TVD SS drilling depth and five successful wells at deep drilling depths 18,000 feet TVD SS or deeper without the incentive. With the incentive, MMS estimates there would be 62 wells drilled to depths 18,000 feet TVD SS or deeper, of which 49 would be unsuccessful, and 33 of them on leases having other production to which the RSS could be applied. In both drilling depths, some of these wells will be sidetracks or deeper wells on leases with deep production that qualifies them for a reduced royalty suspension.

Over the 2003–2009 period, the absence of this deep gas royalty relief program would save the government about 470 BCF in new RSV and RSS awarded for drilling activities that would have occurred anyway. These savings may decline before the program ends in about 2009 because of the availability of less prospective reservoirs in later years of the program. Further, in any one year, only about 20–25 percent of the accrued amount of RSV and RSS could actually be used.

Offsetting most of these initial royalty losses are the extra royalties from two sources: (a) the condensate portion of production from the added deep gas wells and (b) gas production in later years beyond the RSV from additional reserves discovered because of the incentive. Along with the additional 38 new wells (62–24) drilled annually to depths 18,000 feet TVD SS or deeper, MMS expects an additional 18 new wells (71–53) would be drilled annually to depths of 15,000–18,000 feet TVD SS. MMS estimates that these incremental wells ultimately would lead to gas production of about 3.8 TCF, of which 1.4 TCF would be royalty-free and 2.3 TCF would be royalty-bearing. MMS anticipates that the royalties on this 2.3 TCF of gas production would begin in 2008 and continue until about 2020. A further offsetting benefit also comes from extra private profits from production that would otherwise not occur. A detailed economic analysis of this regulatory action was prepared and will be available at www.mms.gov/econ. This economic analysis explains our monetary calculations.

(2) Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or

geographic regions. The deep gas incentive should materially moderate expected gas prices by adding to the overall supply.

(3) Does not have significant adverse effects on competition, employment, investment, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Companies eligible for the deep gas royalty relief should produce more natural gas and earn more income, while encountering no negative effects.

Paperwork Reduction Act (PRA) of 1995

MMS examined the proposed rule and these final regulations under section 3507(d) of the PRA. Because of the changes to the current 30 CFR part 203 regulations, MMS submitted the information collection (IC) requirements of this rule to OMB for approval as part of the proposed rulemaking process. The IC requirements in the final regulations remain unchanged from the proposed rule, and a new submission to OMB is not required.

The PRA provides that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number. OMB approved the additional requirements to collect information under revisions to 30 CFR part 203 under OMB control number 1010–0153, current expiration date of April 30, 2006. When this final rule becomes effective, MMS plans to roll these IC requirements into those already approved for 30 CFR part 203 (OMB control number 1010–0071).

MMS uses the information collected in this final rule, 30 CFR 203.40 through 203.48, to determine whether a lessee has fulfilled the drilling and production requirements or exercised an option to earn the royalty relief offered to deep gas wells under this part. These decisions have enormous monetary impacts to both the lessee and the Federal Government. Royalty relief can lead to increased production of natural gas and oil, creating profits for lessees and possible royalty and tax revenues for the government that they might not otherwise receive. MMS uses industry notification of drilling intent and production to determine eligibility of the lease to receive royalty relief. The well data collected enables MMS to confirm that a well was an unsuccessful well and that the lessee is eligible for the RSS offered in the program.

The title of this collection of information is "30 CFR Part 203, Deep Gas Provisions." The frequency of response is occasional. Respondents include approximately 130 Federal OCS oil and gas lessees and operating rights holders. Responses are required to obtain or retain a benefit. The IC does not include questions of a sensitive nature. MMS protects information considered proprietary under applicable law and 30 CFR 250.196.

The following table lists the new IC requirements and respective burdens for this rule. The approved annual burden of this collection of information is 361 hours. Based on a cost factor of $50 per hour, the hour cost burden of the new paperwork requirements would be $18,050. There are no non-hour cost burdens in the final regulations.

TABLE 3.—BURDEN BREAKDOWN

30 CFR 203 section	Reporting requirement	Hour burden	Annual number	Annual burden hours
43(a) 46(a)	Notify MMS of intent to begin drilling	1 hour	89 notices	89
43(b)(1)(2)	Notify MMS that production has begun and request confirmation of the size of RSV.	2 hours	25 notices	50
46(b)(1)(2)	Provide data from well to confirm and attest well drilled was an unsuccessful certified well and request supplement.	8 hours	19 submissions	152
48(b)	Notify MMS of decision to exercise option to replace one set of deep gas royalty suspension terms for another set of such terms.	2 hours	35 notices	70
	Total reporting burden		168 responses	361

You may send comments regarding any aspect of the collection of information under this part, including suggestions for reducing the burden, to the Information Collection Clearance Officer, Minerals Management Service, Mail Stop 4230, 1849 C Street, NW., Washington, DC 20240.

Federalism (Executive Order 13132)

According to Executive Order 13132, this rule does not have meaningful Federalism implications. As noted above, it may initially have some small consequences ($1 to $2 million a year) on Gulf Coast States in the form of reduced payments under section 8(g) of the OCSLA. However, additional resources discovered under this incentive will make up for these initial reductions from production that otherwise would not occur. Largely after the RSV's have been produced, extra royalties and payments for Federal and Gulf Coast States will result from this extra production. Also, the added economic activity in those States associated with new deep drilling will generate new tax revenues. Therefore, a Federalism assessment is not required because the rule would not have a direct or substantive effect on the relationship between the Federal and State Governments, nor does it impose responsibilities or costs on States or localities.

Takings Implication Assessment (Executive Order 12630)

According to Executive Order 12630, the rule does not have significant takings implications; therefore a Takings Implication Assessment is not required. This rule has no takings effect because it only specifies circumstances under which royalty payments to the Federal Government by OCS lessees might be reduced. MMS believes that the lessee of such a lease would be better off financially under this rule than in the absence of it.

Energy Supply, Distribution, or Use (Executive Order 13211)

This rule is a significant rule and is subject to review by OMB under Executive Order 12866. This rule does not have a significant adverse effect on energy supply, distribution, or use. This rule increases and accelerates the production of gas from deep wells in shallow waters of the GOM by providing for an RSV for successful deep production and an RSS for unsuccessful deep drilling efforts, so it has a positive

effect on energy supply based on our regulatory analysis.

Unfunded Mandates Reform Act (UMRA) of 1995

This rule does not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than $100 million per year. The rule does not have any Federal mandates nor does the rule have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by the UMRA (2 U.S.C. 1531 *et seq.*) is not required.

Civil Justice Reform (Executive Order 12988)

According to Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of Sections 3(a) and 3(b)(2) of the Order.

National Environmental Policy Act (NEPA) of 1969

This rule does not constitute a major Federal action significantly affecting the quality of the human environment. A detailed statement under the NEPA is not required.

Consultation and Coordination With Indian Tribal Governments (Executive Order 13175)

In accordance with Executive Order 13175, this rule does not have tribal implications that impose substantial direct compliance costs on Indian tribal governments.

List of Subjects in 30 CFR Part 203

Continental shelf, Government contracts, Indian lands, Minerals royalties, Oil and gas exploration, Public lands-mineral resources, Reporting and recordkeeping requirements, Sulphur.

Dated: October 7, 2003.

Rebecca W. Watson,

Assistant Secretary—Land and Minerals Management.

■ For the reasons stated in the preamble, the Minerals Management Service (MMS) amends 30 CFR part 203 as follows:

PART 203—RELIEF OR REDUCTION IN ROYALTY RATES

■ 1. The authority citation for part 203 continues to read as follows:

Authority: 25 U.S.C. 396 *et seq.*; 25 U.S.C. 396a *et seq.*; 25 U.S.C. 2101 *et seq.*; 30 U.S.C. 181 *et seq.*; 30 U.S.C. 351 *et seq.*; 30 U.S.C. 1001 *et seq.*; 30 U.S.C. 1701 *et seq.*; 31 U.S.C. 9701 *et seq.*; 43 U.S.C. 1301 *et seq.*; 43 U.S.C. 1331 *et seq.*; and 43 U.S.C. 1801 *et seq.*

■ 2. The definitions for *certified unsuccessful well, deep well, original well, participating area, qualified well, reservoir, royalty suspension supplement, royalty suspension volume, sidetrack,* and *sidetrack measured depth* are added alphabetically to § 203.0 as follows:

§ 203.0 What definitions apply to this part?

* * * * *

Certified unsuccessful well means an original well, or a sidetrack with a sidetrack measured depth of at least 10,000 feet, on your lease that—

(1) You begin drilling on or after March 26, 2003, and before March 1, 2009, and before your lease produces gas or oil from a deep well with a perforated interval the top of which is at least 18,000 feet true vertical depth below the datum at mean sea level (TVD SS);

(2) You drill to at least 18,000 feet TVD SS with a target reservoir on your lease, identified from seismic and related data, deeper than that depth;

(3) Fails to meet the producibility requirements of 30 CFR part 250, subpart A, and does not produce gas or oil, or the MMS agrees is not commercially producible; and

(4) For which you have provided the notices and information in § 203.46.

* * * * *

Deep well means either an original well or a sidetrack with a perforated interval the top of which is at least 15,000 feet TVD SS. A deep well subsequently re-perforated less than 15,000 feet TVD SS in the same reservoir is still a deep well.

* * * * *

Original well means a well that is drilled without utilizing an existing wellbore. An original well includes all sidetracks drilled from the original wellbore before the drilling rig moves off the well location. A bypass from an original well (*e.g.*, drilling around material blocking the hole or to straighten crooked holes) is part of the original well.

Participating area means that part of the unit area that MMS determines is reasonably proven by drilling and completion of producible wells, geological and geophysical information, and engineering data to be capable of producing hydrocarbons in paying quantities.

* * * * *

Qualified well means a deep well:

(1) For which drilling begins on or after March 26, 2003;

(2) That produces natural gas (other than test production), including gas associated with oil production, before March 1, 2009; and

(3) For which you have met the requirements prescribed in § 203.43.

* * * * *

Reservoir means an underground accumulation of oil or natural gas, or both, characterized by a single pressure system and segregated from other such accumulations.

* * * * *

Royalty suspension supplement means a royalty suspension volume resulting from drilling a certified unsuccessful well that is applied to future natural gas and oil production generated at any drilling depth on, or allocated under an MMS-approved unit agreement to, the same lease.

Royalty suspension volume means a volume of production from a lease that is not subject to royalty under the provisions of this part.

Sidetrack means, for the purpose of this subpart, a well resulting from drilling an additional hole to a new objective bottom-hole location by leaving a previously drilled hole. A sidetrack also includes drilling a well from a platform slot reclaimed from a previously drilled well or re-entering and deepening a previously drilled well. A bypass from a sidetrack (*e.g.*, drilling around material blocking the hole, or to straighten crooked holes) is part of the sidetrack.

Sidetrack measured depth means the actual distance or length in feet a sidetrack is drilled beginning where it exits a previously drilled hole to the bottom hole of the sidetrack, that is, to its total depth.

* * * * *

■ 3. In § 203.4, the introductory paragraph is revised to read as follows:

§ 203.4 How do the provisions in this part apply to differnt types of leases and projects?

The tables in this section summarize the similar application and approval provisions for the discretionary end-of-life and deep water royalty relief programs in §§ 203.50 to 203.91. Because royalty relief for deep gas on leases not subject to deep water royalty relief, as provided for under §§ 203.40 to 203.48, does not involve an application, its provisions do not parallel the other two royalty relief programs and are not summarized in this section.

* * * * *

■ 4. A new § 203.5 is added to subpart A to read as follows:

§ 203.5 What is MMS's authority to collect information?

The Paperwork Reduction Act of 1995 (PRA) requires us to inform you that MMS may not conduct or sponsor and

you are not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB approved the information collection requirements in this part 203 under 44 U.S.C. 3501 *et seq.* in two actions. The information collection requirements in §§ 203.50 through 203.91 are approved under OMB control number 1010–0071, and those in §§ 203.40 through 203.48 are approved under 1010–0153.

■ 5. A new undesignated heading and new §§ 203.40 through 203.48 are added to subpart B to read as follows:

Royalty Relief for Drilling Deep Gas Wells on Leases Not Subject to Deep Water Royalty Relief

§ 203.40 Which leases are eligible for royalty relief as a result of drilling deep wells?

Your lease may receive a royalty suspension volume under §§ 203.41 through 203.43, and may receive a royalty suspension supplement under §§ 203.44 through 203.46, if it:

(a) Was:

(1) In existence on January 1, 2001;

(2) Issued in a lease sale held after January 1, 2001 and before April 1, 2004 and the lessee has exercised the option provided for in § 203.48; or

(3) Issued in a lease sale held on or after April 1, 2004 and the lease terms provide for royalty relief under §§ 203.41 through 203.47;

(b) Is located:

(1) In the GOM, wholly west of 87 degrees, 30 minutes West longitude;

(2) Entirely in water less than 200 meters deep, or partly in water less than 200 meters deep and no deep-water royalty relief provisions in statutes or lease terms apply to the lease; and

(c) Has not produced gas or oil from a deep well with a perforated interval the top of which is 18,000 feet TVD SS or deeper that commenced drilling before March 26, 2003.

§ 203.41 If I have a qualified well, what royalty relief will my lease earn?

(a) This paragraph and paragraph (b) of this section apply if your lease has not produced gas or oil from a deep well that commenced drilling before March 26, 2003. Subject to the administrative requirements of § 203.43, the provisions of § 203.44(d), and the price conditions in § 203.47, you earn a royalty suspension volume shown in the following table in billions of cubic feet (BCF) or in thousands of cubic feet (MCF) applicable to gas production as prescribed in § 203.42:

If you have a qualified well that is . . .	Then you earn a royalty suspension volume on this amount of gas production, as prescribed in this section and § 203.42:
(1) An original well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS.	15 BCF.
(2) A sidetrack with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS.	4 BCF plus 600 MCF times sidetrack measured depth (rounded to the nearest 100 feet) but no more than 15 BCF.
(3) An original well with a perforated interval the top of which is 18,000 feet TVD SS or deeper.	25 BCF.
(4) A sidetrack with a perforated interval the top of which is 18,000 feet TVD SS or deeper.	4 BCF plus 600 MCF times sidetrack measured depth (rounded to the nearest 100 feet) but no more than 25 BCF.

(b) We will suspend royalties on gas volumes produced on or after March 1, 2004 reported on the Oil and Gas Operations Report, Part A (OGOR–A) for your lease under 30 CFR 216.53, as and to the extent prescribed in § 203.42. All gas production from qualified wells reported on the OGOR–A, including production that is not subject to royalty (except for production to which a royalty suspension supplement under §§ 203.44 and 203.45 applies), counts toward the lease royalty suspension volume.

Example 1. If you have a qualified well that is an original well with a perforated interval the top of which is 16,000 feet TVD SS, you earn a royalty suspension volume of 15 BCF cf gas production from qualified wells on your lease, as prescribed in § 203.42. However, if the top of the perforated interval is 18,500 feet TVD SS, the royalty suspension volume is 25 BCF.

Example 2. If you have a qualified well that is a sidetrack with a perforated interval the top of which is 16,000 feet TVD SS, that has a sidetrack measured depth of 6,789 feet, we round the distance to 6,800 feet and you earn a royalty suspension volume of 8.08 BCF of gas production from qualified wells on your lease, as prescribed in § 203.42.

Example 3. If you have a qualified well that is a sidetrack with a perforated interval the top of which is 16,000 feet TVD SS, that has a sidetrack measured depth of 19,500 feet, you earn a royalty suspension volume of 15 BCF of gas production from qualified wells on your lease, as prescribed in § 203.42, even though 4 BCF plus 600 MCF per foot of sidetrack measured depth equals 15.7 BCF.

(c) This paragraph and paragraph (d) of this section apply if your lease has produced gas or oil from a deep well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS (regardless of whether drilling began before or after March 26, 2003), and you subsequently have a qualified well on your lease with a perforated interval the top of which is 18,000 feet TVD or deeper. Subject to the administrative requirements of § 203.43, the provisions of § 203.44(d), and the price conditions in § 203.47, you earn a royalty suspension volume specified in the following table, applicable to gas production as prescribed in § 203.42. This royalty suspension volume is in addition to any royalty suspension volume your lease already may have earned, if any, as a result of a qualified well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS.

If your lease has produced gas or oil from a deep well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS, and you subsequently have a qualified well that is . . .	Then, you earn a royalty suspension volume on this amount of gas production, as prescribed in this section and § 203.42
(1) An original well or a sidetrack with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS.	0 BCF.

If your lease has produced gas or oil from a deep well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS, and you subsequently have a qualified well that is	Then, you earn a royalty suspension volume on this amount of gas production, as prescribed in this section and § 203.42
(2) An original well with a perforated interval the top of which is 18,000 feet TVD SS or deeper.	10 BCF.
(3) A sidetrack with a perforated interval the top of which is 18,000 feet TVD SS or deeper.	4 BCF plus 600 MCF times sidetrack measured depth (rounded to the nearest 100 feet) but no more than 10 BCF.

(d) We will suspend royalties on gas volumes produced on or after March 1, 2004 reported on the Oil and Gas Operations Report, Part A (OGOR–A) for your lease under 30 CFR 216.53, as and to the extent prescribed in § 203.42. All gas production from qualified wells reported on the OGOR–A, including production that is not subject to royalty (except for production to which a royalty suspension supplement under §§ 203.44 and 203.45 applies), counts toward the lease royalty suspension volume.

Example 1. If you have drilled and produced a well with a perforated interval the top of which is 16,000 feet TVD SS before March 26, 2003 (and therefore, it is not a qualified well and has earned no royalty suspension volume) and later drill:

(i) A well with a perforated interval the top of which is 17,000 feet TVD SS, you earn no royalty suspension volume.

(ii) A qualified well that is an original well with a perforated interval the top of which is 19,000 feet TVD SS, you earn a royalty suspension volume of 10 BCF of gas production from qualified wells on your lease, as prescribed in § 203.42.

(iii) A qualified well that is a sidetrack with a perforated interval the top of which is 19,000 feet TVD SS, that has a sidetrack measured depth of 7,000 feet, you earn a royalty suspension volume of 8.2 BCF of gas production from qualified wells on your lease, as prescribed in § 203.42.

Example 2. If you have a qualified well (i.e., drilled after March 26, 2003) that is an original well with a perforated interval the top of which is 16,000 feet TVD SS and later drill a second qualified well that is an original well with a perforated interval the top of which is 19,000 feet TVD SS, we increase the total royalty suspension volume for your lease from 15 BCF to 25 BCF, as prescribed in § 203.42.

Example 3. If you have a qualified well (i.e., drilled after March 26, 2003) that is a sidetrack with a perforated interval the top of which is 16,000 feet TVD SS, that has a sidetrack measured depth of 4,000 feet, and later drill a second qualified well that is a sidetrack with a perforated interval the top of which is 19,000 feet TVD SS, that has a sidetrack measured depth of 8,000 feet, we increase the total royalty suspension volume for your lease from 6.4 BCF to 15.2 BCF, as prescribed in § 203.42. The difference of 8.8 BCF represents the royalty suspension volume earned by the second sidetrack.

(e) After your lease has produced gas or oil from a deep well with a perforated interval the top of which is 18,000 feet TVD SS or deeper, your lease cannot earn a royalty suspension volume as a result of drilling any subsequent qualified wells.

(f) The royalty suspension volume determined under this section for the first qualified well on your lease (whether an original well or a sidetrack) establishes the total royalty suspension volume available for that drilling depth interval on your lease, regardless of the number of subsequent qualified wells you drill to that depth interval.

Example to paragraph (f): If your first qualified well is a sidetrack with a perforated interval the top of which is 16,000 feet TVD SS and earns a royalty suspension volume of 12.5 BCF, and you later drill a qualified original well to 17,000 feet TVD SS, the royalty suspension volume for your lease remains at 12.5 BCF and does not increase to 15 BCF. However, under paragraph (b) of this section, if you subsequently drill a qualified well to another depth interval 18,000 feet or greater TVD SS, you may earn an additional royalty suspension volume.

(g) If a qualified well on your lease is within a unitized portion of your lease, the royalty suspension volume earned by that well under this section applies only to your lease and not to other leases within the unit.

(h) If your qualified well is a directional well (either an original well or a sidetrack) drilled across a lease line, the lease with the perforated interval that initially produces earns the royalty suspension volume. However, if the perforated interval crosses a lease line, the lease where the surface of the well is located earns the royalty suspension volume.

(i) Any royalty suspension volume earned under this section is in addition to any royalty suspension supplement for your lease under § 203.44 that results from a different wellbore.

(j) If your lease earns a royalty suspension volume under this section and later produces from a deep well that is not a qualified well, the royalty suspension volume is not forfeited or terminated. However, you may not apply the royalty suspension volume under this section to production from the deep well that is not a qualified well, even if it begins producing after your first qualified well.

(k) You owe minimum royalties or rentals in accordance with your lease terms notwithstanding any royalty suspension volumes allowed under paragraphs (a) and (b) of this section.

§ 203.42 To which production do I apply the royalty suspension volume earned from qualified wells on my lease?

(a) This paragraph applies to any lease that is not within an MMS-approved unit. Subject to the requirements of §§ 203.40, 203.41, 203.43, 203.44, and 203.47, you must apply the royalty suspension volumes prescribed in § 203.41 to the earliest gas production:

(1) Occurring on and after the later of March 1, 2004 or the date that the first qualified well that earns your lease the royalty suspension volume begins production (other than test production);

(2) From all qualified wells, regardless of their depth, on your lease for which you have met the requirements in § 203.43, up to the aggregate royalty suspension volume earned by your lease.

Example to paragraph (a): You began drilling an original well that was a qualified well with a perforated interval the top of which is 18,200 feet TVD SS on May 1, 2003 and it began producing on September 1, 2003. You subsequently drilled two more original wells that are qualified wells with a perforated interval the tops of which are 16,600 feet TVD SS. The first well earned a royalty suspension volume of 25 BCF. You must apply the royalty suspension volume each month beginning on March 1, 2004 to production from all three wells until the 25 BCF royalty suspension volume is fully utilized.

(b) This paragraph applies to any lease all or part of which is within an MMS-approved unit. If your lease has a qualified well, a share of the production from all the qualified wells in the unit participating area will be allocated to

your lease each month according to the participating area percentages. Subject to the requirements of §§ 203.40, 203.41, 203.43, 203.44, and 203.47, you must apply the royalty suspension volume to the earliest gas production occurring on and after the later of March 1, 2004 or the date that the first qualified well that earns your lease the royalty suspension volume begins production (other than test production):

(1) From all qualified wells on the non-unitized area of your lease and

(2) Allocated to your lease from qualified wells on unitized areas of your lease and other leases in the unit under an MMS-approved unit agreement. That allocated share does not increase the royalty suspension volume for your lease. None of the volumes produced from a well that is not within a unit participating area may be allocated to other leases in the unit.

Example to paragraph (b): The east half of your lease A is unitized with all of lease B. There is one qualified well on the non-unitized portion of lease A, one qualified well on the unitized portion of lease A and a qualified well on lease B. The participating area percentages allocate 32 percent of production from both of the unit qualified wells to lease A and 68 percent to lease B. If the non-unitized qualified well on lease A produces 12,000 MCF and the unitized qualified well on lease A produces 15,000 MCF, and the qualified well on lease B produces 10,000 MCF, then the production volume from and allocated to lease A to which the lease A royalty suspension volume applies is 20,000 MCF [12,000 + (15,000 + 10,000)(32 percent)]. The production volume allocated to lease B to which the lease B royalty suspension volume applies is 17,000 MCF [(15,000 + 10,000)(68 percent)].

(c) Unused royalty suspension volume transfers to a successor lessee and expires with the lease.

(d) You may not apply the royalty suspension volume allowed under § 203.41:

(1) To production from completions less than 15,000 feet TVD SS, except in cases where the qualified well is re-perforated in the same reservoir previously perforated deeper than 15,000 feet TVD SS;

(2) To production from a deep well that commenced drilling before March 26, 2003; or

(3) To production from a deep well on any other lease, except as provided in paragraph (b) of this section.

(e) You must begin paying royalties when the cumulative production of gas from all qualified wells on your lease, or allocated to your lease under paragraph (b) of this section, reaches the applicable royalty suspension volume allowed under § 203.41. For the month in which cumulative production reaches this royalty suspension volume, you owe royalties on the portion of gas production that exceeds the royalty suspension volume remaining at the beginning of that month.

(f) No royalty suspension volume may be applied to any liquid hydrocarbon (oil and condensate) volumes.

§ 203.43 What administrative steps must I take to use the royalty suspension volume?

(a) You must notify, in writing, the MMS Regional Supervisor for Production and Development of your intent to begin drilling operations on all deep wells; and

(b) Within 30 days of the beginning of production from all wells that would become qualified wells by satisfying the requirements of this section, you must:

(1) Provide written notification to the MMS Regional Supervisor for Production and Development that production has begun; and

(2) Request confirmation of the size of the royalty suspension volume earned by your lease.

(c) Before beginning production, you must meet any production measurement requirements that the MMS Regional Supervisor for Production and Development has determined are necessary under 30 CFR part 250, subpart L.

(d) If you produced from a qualified well before March 1, 2004, you must provide the information in paragraph (b) of this section no later than June 1, 2004.

(e) If you cannot produce from a well that otherwise meets the criteria for a qualified well before March 1, 2009, the MMS Regional Supervisor for Production and Development may extend the deadline for beginning production for up to 1 year, based on the circumstances of the particular well involved, provided you demonstrate that:

(1) The delay occurred after reaching total depth in your well;

(2) Production (other than test production) was expected to begin before March 1, 2009; and

(3) The delay in beginning production is for reasons beyond your control, including but not limited to adverse weather and unavoidable accidents.

§ 203.44 If I drill a certified unsuccessful well, what royalty relief will my lease earn?

Your lease may earn a royalty suspension supplement. Subject to paragraph (d) of this section, the royalty suspension supplement is in addition to any royalty suspension volume your lease may earn under § 203.41.

(a) If you drill a certified unsuccessful well and you satisfy the administrative requirements of § 203.46 and subject to the price conditions in § 203.47, you earn a royalty suspension supplement shown in the following table (in billions of cubic feet of gas equivalent (BCFE) or in thousands of cubic feet of gas equivalent (MCFE)) applicable to oil and gas production as prescribed in § 204.45:

If you have a certified unsuccessful well that is . . .	Then, you earn a royalty suspension supplement on this volume of oil and gas production as prescribed in this section and § 203.45:
(1) An original well and your lease has not produced gas or oil from a deep well.	5 BCFE.
(2) A sidetrack (with a sidetrack measured depth of at least 10,000 feet) and your lease has not produced gas or oil from a deep well.	0.8 BCFE plus 120 MCFE times sidetrack measured depth (rounded to the nearest 100 feet) but no more than 5 BCFE.
(3) An original well or a sidetrack (with a sidetrack measured depth of at least 10,000 feet) and your lease has produced gas or oil from a deep well with a perforated interval the top of which is from 15,000 to less than 18,000 feet TVD SS.	2 BCFE.

(b) We will suspend royalties on oil and gas volumes produced on or after March 1, 2004 reported on the Oil and Gas Operations Report, Part A (OGOR–A) for your lease under 30 CFR 216.53, as and to the extent prescribed in § 203.45. All oil and gas production reported on the OGOR–A, including production that is not subject to royalty (except for production to which a royalty suspension volume under §§ 203.41 and 203.42 applies), counts

toward the lease royalty suspension supplement.

Example 1. If you drill a certified unsuccessful well that is an original well to a target 19,000 feet TVD SS, you earn a royalty suspension supplement of 5 BCFE of gas and oil production if your lease has not previously produced from a deep well, or you earn a royalty suspension supplement of 2 BCFE of gas and oil production if your lease has previously produced from a deep well with a perforated interval from 15,000 to less than 18,000 feet TVD SS, as prescribed in § 203.45.

Example 2. If you drill a certified unsuccessful well that is a sidetrack that reaches a target 19,000 feet TVD SS, that has a sidetrack measured depth of 12,545 feet, and your lease has not produced gas or oil from any deep well, we round the distance to 12,500 feet and you earn a royalty suspension supplement of 2.3 BCFE of gas and oil production as prescribed in § 203.45.

(c) The conversion from oil to gas for using the royalty suspension supplement is specified in § 203.73.

(d) Each lease is eligible for up to two royalty suspension supplements. Therefore, the total royalty suspension supplement for a lease cannot exceed 10 BCFE.

(1) You may not earn more than one royalty suspension supplement from a single wellbore.

(2) If you begin drilling a certified unsuccessful well on one lease but the completion target is on a second lease, the entire royalty suspension supplement belongs to the second lease. However, if the target straddles a lease line, the lease where the surface of the well is located earns the royalty suspension supplement.

(e) If the same wellbore that earns a royalty suspension supplement as a certified unsuccessful well later produces from a perforated interval the top of which is 15,000 feet TVD SS or deeper before March 1, 2009, it will become a qualified well subject to the following conditions:

(1) Beginning on the date production starts, you must stop applying the royalty suspension supplement earned by that wellbore to your lease production.

(2) If the completion of this qualified well is on your lease or, in the case of a directional well, is on another lease, then you must subtract from the royalty suspension volume earned by that qualified well the royalty suspension supplement amounts earned by that wellbore that have already been applied either on your lease or any other lease. The difference represents the royalty suspension volume earned by the qualified well.

(f) If the same wellbore that earned a royalty suspension supplement later has a sidetrack drilled from that wellbore, you are not required to subtract any royalty suspension supplement earned by that wellbore from the royalty suspension volume that may be earned by the sidetrack.

(g) You owe minimum royalties or rentals in accordance with your lease terms notwithstanding any royalty suspension supplements under this section.

§ 203.45 To which production do I apply the royalty suspension supplements from drilling one or two certified unsuccessful wells on my lease?

(a) Subject to the requirements of §§ 203.40, 203.42, 203.44, 203.46 and 203.47, you must apply royalty suspension supplements in § 203.44 to the earliest oil and gas production:

(1) Occurring on and after the day you file the information under § 203.46(b),

(2) From, or allocated under an MMS-approved unit agreement to, the lease on which the certified unsuccessful well was drilled, without regard to the drilling depth of the well producing the gas or oil.

(b) If you have a royalty suspension volume for the lease under § 203.41, you must use the royalty suspension volumes for gas produced from qualified wells on the lease before using royalty suspension supplements for gas produced from qualified wells.

Example to paragraph (b):

You have two shallow oil wells on your lease. Then you drill a certified unsuccessful well and earn a royalty suspension supplement of 5 BCFE. Thereafter, you begin production from an original well that is a qualified well that earns a royalty suspension volume of 15 BCF. You use only 2 BCFE of the royalty suspension supplement before the oil wells deplete. You must use up the 15 BCF of royalty suspension volume before you use the remaining 3 BCFE of the royalty suspension supplement for gas produced from the qualified well.

(c) If you have no current production on which to apply the royalty suspension supplement allowed under § 203.44, your royalty suspension supplement applies to the earliest subsequent production of gas and oil from, or allocated under an MMS-approved unit agreement to, your lease.

(d) Unused royalty suspension supplements transfer to a successor lessee and expire with the lease.

(e) You may not apply the royalty suspension supplement allowed under § 203.44 to production from any other lease, except for production allocated to your lease from an MMS-approved unit agreement. If your certified unsuccessful well is on a lease subject to an MMS-approved unit agreement, the lessees of other leases in the unit may not apply any portion of the royalty suspension supplement for your lease to production from the other leases in the unit.

(f) You must begin or resume paying royalties when cumulative gas and oil production from, or allocated under an MMS-approved unit agreement to, your lease (excluding any gas produced from qualified wells subject to a royalty suspension volume allowed under § 203.41) reaches the applicable royalty suspension supplement. For the month in which the cumulative production reaches this royalty suspension supplement, you owe royalties on the portion of gas or oil production that exceeds the amount of the royalty suspension supplement remaining at the beginning of that month.

§ 203.46 What administrative steps do I take to obtain and use the royalty suspension supplement?

(a) Before you start drilling a well on your lease targeted to a reservoir at least 18,000 feet TVD SS, you must notify, in writing, the MMS Regional Supervisor for Production and Development of your intent to begin drilling operations and the depth of the target.

(b) After drilling the well, you must provide the MMS Regional Supervisor for Production and Development within 60 days after reaching the total depth in your well:

(1) Information that allows MMS to confirm that you drilled a certified unsuccessful well as defined under § 203.0, including:

(i) Well log data, if your original well or sidetrack does not meet the producibility requirements of 30 CFR part 250, subpart A; or

(ii) Well log, well test, seismic, and economic data, if your well does meet the producibility requirements of 30 CFR part 250, subpart A; and

(2) Information that allows MMS to confirm the size of the royalty suspension supplement for a sidetrack, including sidetrack measured depth and supporting documentation.

(c) If you commenced drilling a well that otherwise meets the criteria for a certified unsuccessful well on or after March 26, 2003, and finished it before March 1, 2004, provide the information in paragraph (b) of this section no later than June 1, 2004.

§ 203.47 Do I keep royalty relief if prices rise significantly?

(a) You must pay royalties on all gas and oil production for which royalty suspension volume or royalty suspension supplement otherwise would be allowed under §§ 203.40 through 203.46 for any calendar year when the average daily closing NYMEX natural gas price exceeds the threshold of $9.34 per MMBtu, adjusted annually after year 2004 for inflation. The threshold price for any calendar year after 2004 is found by adjusting the threshold price in the previous year by the percentage that the implicit price deflator for the gross domestic product as published by the Department of Commerce changed during the calendar year.

(b) You must pay any royalty due under this paragraph, plus late payment interest from the end of the month after the month of production until the date of payment under 30 CFR 218.54, no later than 90 days after the end of the calendar year for which you owe royalty.

(c) Production volumes on which you must pay royalty under this section count as part of your royalty suspension volumes and royalty suspension supplements.

§ 203.48 May I substitute the deep gas drilling provisions in § 203.0 and §§ 203.40 through 203.47 for the deep gas royalty relief provided in my lease terms?

(a) You may exercise an option to replace the applicable lease terms for royalty relief related to deep-well drilling with those in § 203.0 and §§ 203.40 through 203.47 if you have a lease issued with royalty relief provisions for deep-well drilling. Such leases:

(1) Must be issued as part of an OCS lease sale held after January 1, 2001, and before April 1, 2004; and

(2) Must be located wholly west of 87 degrees, 30 minutes West longitude in the GOM entirely or partly in water less than 200 meters deep.

(b) To exercise the option under paragraph (a) of this section, you must notify, in writing, the MMS Regional Supervisor for Production and Development of your decision before September 1, 2004 or 180 days after your lease is issued, whichever is later, and specify the lease and block number.

(c) Once you exercise the option under paragraph (a) of this section, you are subject to all the activity, timing, and administrative requirements pertaining to deep gas royalty relief as specified in §§ 203.40 through 203.47.

(d) Exercising the option under paragraph (a) of this section is irrevocable. If you do not exercise this option, then the terms of your lease apply.

[FR Doc. 04–1299 Filed 1–23–04; 8:45 am]
BILLING CODE 4310–MR–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[FRL–7613–2]

Water Quality Standards for Puerto Rico

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is promulgating designated uses and associated water quality criteria for six waterbodies and an area of coastal waters known as the *coastal ring* in the Commonwealth of Puerto Rico. These waterbodies are: Mayaguez Bay (from Punta Guanajibo to Punta Algarrobo); Yabucoa Port (from Punta Icacos to Punta Yeguas); Guayanilla and Tallaboa Bays (from Cayo Parguera to Punta Verraco); Ponce Port (from Punta Carenero to Punta Cuchara) and San Juan Port (from the mouth of Río Bayamón to Punta El Morro), as well as the area of coastal waters known as the coastal ring, defined as all coastal waters from 500 meters seaward to a maximum of three miles seaward. Through this promulgation, the Federally designated use of primary contact recreation and the associated water quality criteria are added to the Commonwealth's designated uses for the previously referenced embayments and the coastal ring (referred to collectively in this preamble as the "Subject Waterbodies").

DATES: This regulation is effective March 26, 2004.

ADDRESSES: The public record for this rulemaking has been established, is located at EPA Region 2, 290 Broadway, New York, New York 10007, and Carribean Environmental Protection Division, U.S. EPA Region 2, 1492 Ponce De Leon Avenue, Suite 417, Santurce, Puerto Rico 00907, and can be viewed between 9 a.m. and 3:30 p.m. at both locations.

FOR FURTHER INFORMATION CONTACT: For information concerning today's final rule, contact Wayne Jackson, U.S. EPA Region 2, Division of Environmental Planning and Protection, 290 Broadway, New York, New York 10007 (telephone: 212–637–3807 or e-mail: *jackson.wayne@epa.gov*) or Claudia Fabiano, U.S. EPA Headquarters, Office of Science and Technology, 1200 Pennsylvania Avenue NW., Mail Code 4305T, Washington, DC 20460 (telephone: 202–566–0446 or e-mail: *fabiano.claudia@epa.gov*).

SUPPLEMENTARY INFORMATION:

Table of Contents

I. General Information

A. Who Is Potentially Affected by This Rule?

Citizens concerned with water quality in Puerto Rico may be interested in this rulemaking. Facilities discharging pollutants to certain waters of the United States in Puerto Rico could be indirectly affected by this rulemaking since water quality standards are used in determining water quality-based National Pollutant Discharge

Elimination System (NPDES) permit limits. Categories and entities that may indirectly be affected include:

Category	Examples of potentially regulated entities
Industry	Industries discharging pollutants to the waters identified in § 131.40.
Municipalities	Publicly-owned treatment works discharging pollutants to the waters identified in § 131.40.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. This table lists the types of entities that EPA is now aware could potentially be affected by this action. Other types of entities not listed in the table could also be affected. To determine whether your facility may be affected by this action, you should carefully examine the waterbodies identified in § 131.40 of today's rule. If you have questions regarding the applicability of this action to a particular entity, consult one of the persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. How Can I Get Copies of This Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under Docket ID No. OW–2003–0072. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the *Water Quality Standards for Puerto Rico* docket, located at both the Division of Environmental Planning and Protection, U.S. EPA Region 2, 290 Broadway, New York, New York 10007, and the Carribean Environmental Protection Division, U.S. EPA Region 2, 1492 Ponce De Leon Avenue, Suite 417, Santurce, Puerto Rico 00907. These Docket Facilities are open from 9 a.m. to 3:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone numbers are 212–637–3807 and 787–977–5836, respectively. A reasonable fee will be charged for copies.

2. *Electronic Access.* You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the one of the docket facilities identified in Section I.B. Once in the system, select "search," then key in the appropriate docket identification number.

II. Background

A. Statutory and Regulatory Background

Section 303 (33 U.S.C. 1313) of the Clean Water Act (CWA or "the Act") directs States, Territories, and authorized Tribes (hereafter referred to as "States"), with oversight by EPA, to adopt water quality standards to protect the public health and welfare, enhance the quality of water and serve the purposes of the CWA. Under section 303, States are required to develop water quality standards for navigable waters of the United States within the State. Section 303(c) provides that water quality standards shall include the designated use or uses to be made of the water and water quality criteria necessary to protect those uses. The designated uses to be considered by States in establishing water quality standards are specified in the Act: public water supplies, propagation of fish and wildlife, recreation, agricultural uses, industrial uses and navigation. States are required to review their water quality standards at least once every three years and, if appropriate, revise or adopt new standards. The results of this triennial review must be submitted to EPA, and EPA must approve or disapprove any new or revised standards.

Section 303(c) of the CWA authorizes the EPA Administrator to promulgate water quality standards to supersede State standards that have been disapproved or in any case where the Administrator determines that a new or revised standard is needed to meet the CWA's requirements. In an August 11, 2003, Opinion and Order from the United States District Court for the District of Puerto Rico in the case of *CORALations and the American Littoral Society* v. *United States Environmental Protection Agency, et al.* (No. 02–1266 (JP) (D. Puerto Rico)), the court ordered EPA to prepare and publish new or revised water quality standards for those waters which are currently classified as "Class SC" (secondary contact recreation) waters by the Commonwealth of Puerto Rico. EPA is, therefore, promulgating Federal water quality standards for these waters in Puerto Rico.

EPA regulations implementing CWA section 303(c) are published at 40 CFR part 131. Under these rules, the minimum elements that must be included in a State's water quality standards include: use designations for all waterbodies in the State, water quality criteria sufficient to protect those use designations, and an antidegradation policy (see 40 CFR 131.6).

Water quality standards establish the "goals" for a waterbody through the establishment of designated uses. Designated uses, in turn, determine what water quality criteria apply to specific waterbodies. Section 101(a)(2) of the Act establishes as a national goal "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and * * * recreation in and on the water," wherever attainable. These national goals are commonly referred to as the "fishable/swimmable" goals of the Act. Section 303(c)(2)(A) requires water quality standards to "protect the public health or welfare, enhance the quality of water, and serve the purposes of this [Act]." EPA's regulations at 40 CFR part 131 interpret and implement these provisions by requiring that water quality standards provide for fishable/swimmable uses unless those uses have been shown to be unattainable. The mechanism in EPA's regulations used to overcome this presumption is a use attainability analysis (UAA).

Under 40 CFR 131.10(j), States are required to conduct a UAA whenever the State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the CWA or when the State wishes to remove a designated use that is specified in section 101(a)(2) of the CWA or adopt subcategories of uses that require less stringent criteria. Uses are considered by EPA to be attainable, at a minimum, if the uses can be achieved (1) when effluent limitations under section 301(b)(1)(A) and (B) and section 306 are imposed on point source dischargers and (2) when cost effective and reasonable best management practices are imposed on nonpoint source dischargers. 40 CFR 131.10 lists grounds upon which to base a finding that attaining the designated use is not

feasible, as long as the designated use is not an existing use:

(i) Naturally occurring pollutant concentrations prevent the attainment of the use;

(ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met;

(iii) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

(iv) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way which would result in the attainment of the use;

(v) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like unrelated to water quality, preclude attainment of aquatic life protection uses; or

(vi) Controls more stringent than those required by sections 301(b) and 306 of the CWA would result in substantial and widespread economic and social impact.

A UAA is defined in 40 CFR 131.3(g) as a "structured scientific assessment of the factors affecting the attainment of a use which may include physical, chemical, biological, and economic factors' (*see* §§ 131.3 and 131.10). In a UAA, the physical, chemical and biological factors affecting the attainment of a use are evaluated through a waterbody survey and assessment.

Guidance on waterbody survey and assessment techniques is contained in the *Technical Support Manual, Volumes I–III: Water Body Surveys and Assessments for Conducting Use Attainability Analyses.* Volume I provides information on waterbodies in general; Volume II contains information on estuarine systems; and Volume III contains information on lake systems (Volumes I–II, November 1983; Volume III, November 1984). Additional guidance is provided in the *Water Quality Standards Handbook: Second Edition* (EPA–823–B–94–005, August 1994). Guidance on economic factors affecting the attainment of a use is contained in the *Interim Economic Guidance for Water Quality Standards: Workbook* (EPA–823–B–95–002, March 1995). In developing today's proposal, EPA followed the same procedures set out for States in 40 CFR part 131 and EPA's implementing policies, procedures, and guidance.

EPA regulations effectively establish a "rebuttable presumption" that fishable/swimmable uses are attainable and, therefore, should apply to a waterbody unless it is demonstrated that such uses are not attainable. EPA adopted this approach to help achieve the national goal articulated by Congress that, "wherever attainable," water quality provide for the "protection and propagation of fish, shellfish and wildlife" and for "recreation in and on the water." CWA section 101(a). While facilitating achievement of Congress' goals, the rebuttable presumption approach preserves States' paramount role in establishing water quality standards in weighing any available evidence regarding the attainable uses of a particular waterbody. The rebuttable presumption approach does not restrict the discretion that States have to determine that fishable/swimmable uses are not, in fact, attainable in a particular case. Rather, if the water quality goals articulated by Congress are not to be met in a particular waterbody, the regulations simply require that such a determination be based upon a credible "structured scientific assessment" of use attainability.

EPA's approach in this rulemaking does not undermine the Commonwealth's primary role in designating uses and setting criteria for waters in Puerto Rico. If the Commonwealth reclassifies the Subject Waterbodies to a swimmable designated use or adopts criteria sufficient to protect a swimmable use, EPA would expect to approve the Commonwealth's action and initiate a rulemaking to rescind today's rule. Alternatively, the Commonwealth might complete a sound analysis of use attainability (taking into account appropriate biological, chemical and physical factors) and conclude that the swimmable use is not attainable for these waterbodies. In this case, EPA would expect to approve the Commonwealth's action (assuming it meets all requirements of EPA's regulations at 40 CFR part 131) and initiate a rulemaking to rescind today's rule. EPA encourages the Commonwealth to continue evaluating the appropriate use designation for these waterbodies.

B. Current Puerto Rico Water Quality Standards

Puerto Rico's water quality standards regulation (PRWQSR) at Article 2 establishes a classification system containing the designated uses for waterbodies in the Commonwealth. Puerto Rico has applied these use designations to all coastal, estuarine, and surface waters of the Commonwealth.

The current use designation adopted by the Commonwealth for the Subject Waterbodies is Class SC. Coastal waters designated as Class SC are "intended for uses where the human body may come into indirect contact with the water (such as fishing, boating, etc.) and for use in propagation and preservation of desirable species, including threatened or endangered species." (PRWQSR, at Article 3.2.3.) The Class SC designation, however, does not provide protection from pathogens associated with fecal contamination during direct contact with the water. Therefore, Class SC does not protect for the swimming use.

EPA's regulations at 40 CFR part 131 require that waters designated for a use less protective than "fishable/swimmable" be supported by a use attainability analysis. "Fishing" and "propagation and preservation of desirable species" are included as a condition of the best usage for Class SC waters. Therefore, Class SC includes the "fishable" use established as a goal in the Clean Water Act; however, it does not include the "swimmable" use. Puerto Rico uses fecal coliform and enterococci bacteria criteria to protect for the primary contact recreation use. Class SC includes bacteria criteria sufficient to protect secondary contact recreation (*e.g.*, boating) but not primary contact recreation (*e.g.*, swimming). Criteria used for Class SC do not provide for protection from pathogens associated with fecal contamination during direct contact with the water and, therefore, do not protect for the primary contact recreation use.

Section 3.2.3 of the PRWQSR contains the use classifications and associated use-specific criteria for Class SC waters for dissolved oxygen, fecal coliforms, pH, color, turbidity, taste and odor producing substances, sulfates, and surfactants as MBAS (methylene blue active substances). With the exception of the criteria for fecal coliforms, which are not fully protective of the primary contact recreation use, these criteria for Class SC waters have been found to be protective of CWA section 101(a) uses and have been previously approved by EPA. These criteria are intended to protect aquatic life and/or general aesthetic conditions in these waters.

Bacteria is the only parameter that is specifically intended to protect for primary contact recreation. Water quality criteria for bacteria are intended to protect bathers from gastrointestinal

illness in recreational waters and they establish levels of indicator bacteria that demonstrate the presence of fecal contamination. Waterbodies should not exceed these levels if they are to protect bathers in fresh and marine recreational waters. Including primary contact recreation as a use for Class SC waters and applying the indicator bacteria criteria described above would result in the Class SC waters being fully "swimmable." The remainder of the criteria that Puerto Rico applies to its coastal waters are sufficient to protect other CWA section 101(a) uses, such as aquatic life and human health protection from consuming fish based on the level of toxic pollutants in the water and in the fish tissue.

Section 3.1 of the PRWQSR contains narrative water quality criteria and numeric criteria for substances in toxic concentrations including inorganic substances, pesticides, non-pesticide organic substances, carbon tetrachloride, volatile organic substances, and semi-volatile organic substances. The criteria in section 3.1 are applicable to all waters of Puerto Rico, including those waters classified as Class SC. These criteria are protective of all applicable uses and have been approved by EPA.

Puerto Rico's Environmental Quality Board (EQB) applies the Class SC designation for the bay components of the Subject Waterbodies from the zone subject to the ebb and flow of tides (mean sea level) to 10.3 nautical miles seaward, and from 500m from the shoreline to 10.3 nautical miles seaward for the coastal ring. However it is clear that State jurisdiction under the CWA is limited to "navigable waters" of the United States, including territorial seas which extend only three miles seaward. Accordingly, in this rulemaking, the new use designation for coastal waters is limited to the territorial seas.

Section 303(c)(2)(A) of the CWA provides that States are to adopt water quality standards for "navigable waters." Under CWA section 303(c)(3) providing for EPA review of State water quality standards, if EPA approves a State's water quality standards, they become the standards for the applicable waters of the State. Where the Administrator proposes and promulgates water quality standards, CWA section 303(c)(4) provides that the State water quality standards shall apply to "navigable waters."

Section 502(7) of the CWA defines "navigable waters" as waters of the United States, including the "territorial seas." Section 502(8) defines "territorial seas" to mean "the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles." The "contiguous zone" and "ocean" are defined separately [*see* sections 502(9) and (10)].

The CWA also includes two other definitions (for "effluent limitations" and "discharge of a pollutant") that distinguish navigable waters from the contiguous zone and the ocean. These definitions also indicate that navigable waters are not meant to include the contiguous zone and the ocean. EPA's long standing interpretation of the statute does not include the contiguous zone and ocean in the definition of navigable waters (*see* 40 CFR 122.2). The CWA authorizes each State electing to administer its own NPDES permit program for discharges into navigable waters within its jurisdiction to submit its program for EPA review [*see* section 402(b)]. If EPA approves the State program, EPA suspends its issuance of permits under section 402(a), but only as to those navigable waters subject to the State program [*see* section 402(c)(1)]. While the CWA definition of navigable waters includes the territorial sea, it does not include the contiguous zone or the ocean, both of which are defined as regions beyond the territorial sea. Read together, these provisions plainly indicate that Congress intended the State NPDES program jurisdiction to be limited to navigable waters including the territorial sea. States cannot assume NPDES permitting authority beyond the three-mile limit of the territorial sea.

Two decisions in the Ninth Circuit Court have addressed these jurisdictional issues. In *Pacific Legal Foundation, et al.* v. *Costle, 586 F. 2d 657 (9th Cir. 1978) reversed on other grounds, 445 U.S.198,* the Court held that only the Administrator has authority to issue NPDES permits for waters beyond the territorial seas. The Court also held that the contiguous zone and the ocean clearly extend beyond the outer limits of the "navigable waters" that mark the extent of the power of States to administer their own permit programs. The Court noted that "* * * had Congress intended the power of the States to extend beyond the territorial seas, it easily could have so provided." *Id.* at 656. Further, citing the definition of "discharge of a pollutant," which distinguishes discharges to navigable waters from discharges to the contiguous zone or the ocean, the Court concluded that "it is apparent that "ocean" and "contiguous zone" waters are not included within the scope of "navigable waters' * * * " *Id.*

In *Natural Resources Defense Council* v. *EPA, 863 F.2d 1420, (9th Cir. 1988),* the Court held that "navigable waters" include only those waters landward from the territorial sea. *Id.* at 1435. In this case, Florida argued that it had jurisdiction to apply water quality standards more than three miles from the coast. The State contended that its maritime boundaries extended three maritime leagues (approximately 10.3 miles). Florida maintained that EPA must assure that discharges under EPA's general permit would comply with the State's water quality standards out to 10.3 miles. The Court disagreed, finding that the State's jurisdiction is limited to the territorial seas. The Court noted that it is "* * * difficult to ignore the express language of the Clean Water Act's definition of territorial seas." And, further, that "* * * if there were any doubt that Congress intended to create a uniform three-mile boundary in the (CWA), the legislative history * * * indicates Congress consciously defined the term 'territorial seas' to make clear the jurisdiction limits of this particular legislation and its relationship to other statutes." *Id.* at 1436. For these reasons, EPA is promulgating the new use designation for coastal waters limited to the territorial seas.

EPA is promulgating primary contact recreation as a specified designated use for the Subject Waterbodies. In developing today's rule, EPA evaluated the PRWQSR to determine which bacteria criteria would protect for the "swimmable" use and would, therefore, ensure achievement of the CWA section 101(a)(2) goals. As a result, EPA is promulgating the bacteriological criteria associated with Class SB (primary contact recreation) for fecal coliform and enterococci set out at Section 3.2.2 of the PRWQSR for the Subject Waterbodies because these criteria protect primary contact recreation. The water quality standards EPA is promulgating for these waterbodies will be the basis for establishing NPDES permit limits by EPA Region 2.

C. Factual Background

1. Summary of Commonwealth and EPA Administrative Actions

In August 1990, the Commonwealth of Puerto Rico adopted revisions to the PRWQSR. These were sent to EPA on September 21, 1990, with the caveat from the Chairman of the EQB that the transmittal may not be the final submittal, since EQB was going to have public hearings on November 1, 1990. Because of this caveat, and because the requisite certification from the Commonwealth's Secretary of Justice

was not submitted with the revisions as required by 40 CFR 131.6(e), EPA did not act on these revisions immediately.

From 1991 to 1993, EPA Region 2 worked with EQB on a series of draft revisions to the PRWQSR. These drafts were never adopted by Puerto Rico. In 1992, EPA included Puerto Rico in the National Toxics Rule, in large part because EPA did not consider the 1990 revisions to be officially adopted by Puerto Rico.

The requisite certification from the Commonwealth's Secretary of Justice was ultimately submitted to EPA on February 25, 2002. Upon receipt of this certification EPA took final action on all new and revised provisions of the 1990 PRWQSR on March 28, 2002. These revisions included 11 separate new or revised provisions. The 1990 revisions to the PRWQSR, however, did not include any changes to the designation of specific waterbody segments, including upgrades from Class SC to SB.

On March 28, 2003, EQB submitted additional revisions to the PRWQSR that EPA approved on June 26, 2003. These revisions included the reclassification of ten bays/estuaries, previously classified as Class SC waters, to Class SB (Article 2.1.3). These included:

- Aguadilla Bay (from Punta Boquerón to Punta Borinquen);
- Arecibo Bay (from Punta Maracayo to Punta Caracoles);
- Fajardo Bay (from Playa Sardinera to Playa de Fajardo);
- Roosevelt Roads (from Punta Cabra de Tierra to Punta Cascajo);
- Port of Naguabo (from Playa de Naguabo to El Morrillo);
- Jobos Bay and Laguna de la Mareas (from Punta Rodeo to Punta Colchones);
- Guánica Bay inland waters north of the mouth of the river;
- Port of Dewey in Culebra; and
- Port of Isabel Segunda in Vieques and Puerto Real in Vieques between Cayo de Tierra and Cayo Real.

While the March 28, 2003, revisions to the PRWQSR did address ten bays/estuaries previously classified as Class SC waters by reclassifying them to Class SB, Puerto Rico recognized that it still needed to address the Subject Waterbodies. In an effort to do so, EQB, in its State Fiscal Year 2003 CWA Section 604(b) Consolidated Workplan, committed to develop a plan to outline a schedule for data collection and analysis and identify the applicable regulatory actions for these waters. EQB is currently completing this plan.

2. Summary of Legal Actions

On February 20, 2002, a complaint was filed in the U.S. District Court for the District of Puerto Rico by three environmental groups: CORALations, American Littoral Society, and the American Canoe Association. In this action, the plaintiffs alleged, among other things, that certain actions by EPA personnel had triggered a mandatory duty under section 303(c) of the CWA for EPA to prepare and propose regulations setting forth a revised water quality standard for any coastal waters that remained classified SC. The Court, in its August 11, 2003, Opinion and Order, ordered EPA to prepare and publish new or revised water quality standards for those coastal waters which are currently classified as Class SC waters:

III. Use Designations and Criteria for Waters That EPA Is Promulgating Today

A. Use Designations and Criteria That EPA Proposed in October 2003

EPA evaluated all available data and information to determine whether the swimmable use is attainable in the Subject Waterbodies. EPA's analysis was informed by the regulatory provisions at 40 CFR part 131 and technical guidance that EPA provided to States for developing use attainability analyses. The information that EPA used in its evaluation of the coastal ring component of the Subject Waterbodies shows that the swimmable use is attainable in these waters. That information included all available Quarterly Reports of the 301(h) Waiver Demonstration Studies for five Regional Wastewater Treatment Plants that discharge to the waters comprising the coastal ring. The ambient water quality data collected as part of these quarterly reports showed that the applicable bacteria criteria to protect primary contact recreation (fecal coliform and enterococci) were being attained in the waters of the coastal ring outside of the designated mixing zones. The quarterly reports also demonstrated that the bacteria criteria to protect primary contact recreation are being attained at the edge of the mixing zone (based on the measured end-of-pipe concentrations of bacteria at each Regional Wastewater Treatment Plant and the critical initial dilution that occurs at each ocean outfall).

As discussed in the *Puerto Rico Water Quality Inventory and List of Impaired Waters—2002 305(b)/303(d) Integrated Report Final Version* (February 2003), there is little or no data available on which to determine the attainability of the swimmable use in the bay components of the Subject Waterbodies. According to this report, there is insufficient data to determine the use attainment for 38% of the coastal miles and 89% of the estuarine acres. The Subject Waterbodies with insufficient data to make a use attainment determination include Yabucoa Port, portions of Guayanilla and Tallaboa Bays, and San Juan Port. The EQB determined that the following Subject Waterbodies were attaining water quality standards: Mayaguez Bay, Ponce Port, and portions of Guayanilla and Tallaboa Bays. However, EPA's regulations at 40 CFR part 131 require that water quality standards provide for fishable/swimmable uses unless those uses have been shown to be unattainable, which effectively creates a rebuttable presumption of attainability. If the Commonwealth takes into account the appropriate biological, chemical, and physical factors in completing a sound analysis of use attainability and concludes that the swimmable use is not attainable in these waterbodies, EPA would expect to approve the Commonwealth's action (if it meets all requirements of EPA's regulations at 40 CFR part 131). In an effort to properly characterize the attainability of the bays which remain classified SC, EQB is developing a plan for data collection and analysis so that they can demonstrate whether the swimmable use is attainable in these waters.

The last broad category of information considered by EPA in its decision-making process was monitoring data from a sample of potentially affected dischargers to the waterbodies (as reflected in Discharge Monitoring Reports or DMRs). As discussed in section V, EPA analyzed the extent to which the proposed Federal use designations and criteria may lead to the development of more stringent NPDES permit limits and, if so, what types of controls would be needed by potentially affected facilities to meet such limits. Discharger information was used in one of two ways by the Agency. First, EPA used monitoring data to assess point sources to the affected waterbodies and to help determine whether their pollutant discharges could contribute to ambient exceedances of criteria. Second, the Agency used the monitoring data to determine whether potentially affected dischargers would need to make significant alterations to their operations (or if they could, in fact, meet permit limits for bacteria that would be associated with the swimmable use). Information indicating that potentially affected dischargers could generally meet such revised limits based on the proposed bacteria criteria would

support the presumption that the swimmable use is attainable.

Based upon this approach, EPA evaluated all available data and information to determine whether the swimmable use is attainable for the Subject Waterbodies. As a result, EPA proposed to include primary contact recreation as a specified designated use for the Subject Waterbodies. In addition, EPA proposed to include bacteria criteria which are protective of primary contact recreation for the Subject Waterbodies. The proposed bacteria criteria are the same as the Commonwealth's criteria associated with the Class SB use for fecal coliform and enterococci, set out at Section 3.2.2 of the PRWQSR. If Puerto Rico classifies these waterbodies with use designations consistent with the CWA and 40 CFR part 131, EPA would expect to approve those use designations and initiate rulemaking to rescind today's rule. EPA notes that a water's use designation of primary contact recreation (made solely for CWA purposes) and adoption of water quality criteria protective of that use are intended to ensure that water quality will protect swimming if it occurs in such waters. A water's use designation of primary contact recreation is not an official government sanction that swimming necessarily is recommended in such waters. There may be other considerations, such as safety, in deciding whether swimming is appropriate.

B. Comments Received in Response to EPA's October 2003 Proposal

The Agency evaluated all the comments submitted to EPA during the public comment period for the proposed rule with regard to the primary contact recreation use and bacteria criteria for the Subject Waterbodies.

A few commenters noted that the Subject Waterbodies are not currently used for swimming purposes due to their physical characteristics and safety issues associated with their use as commercial ports and, therefore, should remain classified as secondary contact recreation. Two commenters noted that the U.S. Coast Guard has established "safety zones" in Guayanilla and Tallaboa Bays preventing other vessels from being within a certain distance of a vessel carrying Liquefied Natural Gas or Liquefied Hazardous Gas. Two commenters stated that Guayanilla Bay is being considered as part of the Port of Americas, a trans-shipment port being developed on the southern coast of Puerto Rico.

EPA recognizes that the Commonwealth does not wish to encourage swimming in some of the Subject Waterbodies because of their physical characteristics and safety issues. The Commonwealth has a range of options available to them, including demonstrating that it is not feasible to attain the primary contact recreation use in a use attainability analysis that supports removing the use. In fact, EPA has approved secondary contact recreation protection for waters used as commercials ports based upon adequate demonstration. In this case, EPA is aware from other sources in the record that primary contact recreation activities occur in portions of these waters at least on a limited basis. While this information does not automatically compel the Agency to require primary contact recreation, in this case there is no information to support that it is not feasible to attain water quality commensurate with primary contact recreation protection.

Furthermore, although portions of the waters in the Subject Waterbodies are specifically managed as "safety zones" precluding access, these conditions may not be present for the entirety of the waters designated for primary contact recreation in today's action. EPA's regulations are not intended to interfere with the Coast Guard's regulations. EPA's establishment of a primary contact recreation designated use for these waters does not advocate that swimming take place regardless of safety issues that may be present within the waterbody, such as the presence of vessels carrying hazardous cargo. For these reasons, EPA believes primary contact recreation is the appropriate designated use based on consideration of all available information at this time.

EPA's approach in this rulemaking does not undermine the Commonwealth's primary role in designating uses and setting criteria for waters in Puerto Rico. If the Commonwealth reclassifies the Subject Waterbodies to include a swimmable designated use; adopts criteria sufficient to protect a swimmable use; or completes a UAA, taking into account appropriate biological, chemical and physical factors, and concludes that the swimmable use is not attainable for these waterbodies, EPA would expect to approve the Commonwealth's action (if it meets all requirements of EPA's regulations at 40 CFR part 131) and initiate a rulemaking to rescind today's rule. EPA encourages the Commonwealth to continue evaluating the appropriate use designation for these waterbodies.

If the Commonwealth prefers to designate the Subject Waterbodies as secondary contact recreation (*i.e.*, Puerto Rico's current use classification of SC), and does not conduct UAAs for the waterbodies, it must set bacteriological criteria sufficient to support primary contact recreation. This approach is consistent with the CWA section 101(a) goal. EPA recognizes that, in some cases, it may not make sense to encourage use of a waterbody for swimming due to safety issues; however, swimming may occur anyway and, therefore, states establish water quality criteria sufficient to protect primary contact recreation throughout the waterbody and for any incidental contact recreation that may occur.

One commenter stated that fecal coliform is not an appropriate bacteriological criterion in tropical waters.

EPA is promulgating both fecal coliform and enterococci criteria for the Subject Waterbodies. EPA believes the use of both these indicators will adequately protect the primary contact designated use. Further, EPA has approved the use of these indicators in other states for tropical waters where primary contact recreation occurs. Where enterococci is newly adopted, as in Puerto Rico, States may continue to include fecal coliform in their water quality standards for a period of time so they can continue to make regulatory decisions while the state collects data on enterococci. EPA believes enterococci is a better indicator to protect against gastro-intestinal illness and EPA expects Puerto Rico to continue to collect the necessary enterococci data to enable the Commonwealth to remove the fecal coliform criteria for recreational waters during its next triennial review.

One commenter also stated that EPA must promulgate the same dissolved oxygen (DO) criterion for the Subject Waterbodies that Puerto Rico has for its Class SB waters because the lower DO criterion of 4 mg/l for Class SC waters will impede the aquatic life use.

EPA disagrees. The DO criterion for Class SC waters has been approved as protective of the aquatic life use. The biological monitoring information included in the Quarterly Reports of the 301(h) Waiver Demonstration Studies indicates that healthy aquatic ecosystems exist in Class SC waters in Puerto Rico, supporting the position that the DO criterion of 4.0 mg/l is adequate to protect aquatic life. In addition, the scope of this promulgation is limited to establishing a primary contact recreation use and associated bacteria criteria because the Subject Waterbodies do not meet the CWA's goal of "swimmable." However, the use designations and associated criteria applicable to these waterbodies,

including the current DO criterion, do meet the "fishable" goal.

One commenter asserted that EPA must ensure today's action does not jeopardize the existence of threatened or endangered species.

On September 19, 2003, EPA initiated consultation with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) regarding the proposed rule. In a letter dated October 7, 2003, FWS concurred that the final action is not likely to adversely affect threatened or endangered species. NMFS has not yet provided its final position. EPA is continuing to work with NMFS to conclude this consultation.

One commenter described his views on the state of compliance and enforcement activities in Puerto Rico. This comment did not pertain specifically to the facilities potentially affected by today's action and therefore not within the scope of today's action.

Based on thorough evaluation of information provided to EPA through the public comment process, EPA believes the primary contact recreation designated use and the bacteria criteria to protect primary contact recreation that were proposed for the Subject Waterbodies remain appropriate and consistent with the requirements of the CWA. Therefore, EPA is promulgating a designated use of primary contact recreation to be added to the current designated uses assigned to the Subject Waterbodies. EPA is also promulgating bacteria criteria sufficient to protect for the primary contact recreation use, which will supersede the Commonwealth's current bacteria criteria for the Subject Waterbodies.

IV. Alternative Regulatory Approaches and Implementation Mechanisms

Today's rule reflects EPA's determination that primary contact recreation is an appropriate use designation for the Subject Waterbodies based upon the information currently available to EPA. In developing today's rule, EPA considered data and information submitted to the Agency during the comment period. However, it is possible that relevant information for these waterbodies may become available in the future. There are several ways to ensure that the use and its implementing mechanisms appropriately take into account such future information.

A. Designating Uses

States have considerable discretion in designating uses. A State may find that changes in use designations are warranted. EPA will review any new or revised use designations adopted by the Commonwealth for these waters to determine if the standards meet the requirements of the CWA and implementing regulations. If approved, EPA would initiate a rulemaking to rescind the Federal water quality standards being promulgated today.

In adopting recreation uses, the Commonwealth may wish to consider additional categories of recreation uses. For example, Puerto Rico could establish more than one category of primary contact recreation to differentiate between waters where recreation is known to occur and waters where recreation is not known to occur but may be attained based on water quality, flow, and depth characteristics.

EPA cautions the Commonwealth that it must conduct use attainability analyses as described in 40 CFR 131.10(g) when adopting water quality standards that result in uses not specified in section 101(a)(2) of the CWA or that result in subcategories of uses specified in section 101(a)(2) that require less stringent criteria (see 40 CFR 131.10(j)).

B. Site-Specific Criteria

The Commonwealth may also develop data indicating a site-specific water quality criterion for a particular pollutant is appropriate and take action to adopt such a criterion into their water quality standards. Site-specific criteria are allowed by regulation and are subject to EPA review and approval. The regulation (*see* 40 CFR 131.11(a)) requires States to adopt criteria to protect designated uses based on sound scientific rationale and containing sufficient parameters or constituents to protect the designated use. In adopting water quality criteria, States should establish numerical values based on 304(a) criteria, 304(a) criteria modified to reflect site-specific conditions, or other scientifically defensible methods. Alternatively, States may establish narrative criteria where numerical criteria cannot be determined or to supplement numeric criteria (*see* 40 CFR 131.11(b)). EPA does not have specific guidance for States and authorized Tribes on developing site-specific criteria for the protection of recreation uses. This does not preclude the Commonwealth from developing its own scientifically defensible methods. Today's rule does not limit Puerto Rico's ability to modify the criteria applicable to the Federal swimmable use.

C. Variances

Water quality standards variances are another alternative that allows EPA to modify the standards with respect to a facility requesting the variance. Puerto Rico has an EPA-approved variance procedure in the PRWQSR (Article 9). Today's rule also contains a Federal variance procedure.

Variances are particularly suitable when the cause of non-attainment is discharger-specific and/or data indicates that the designated use in question will eventually be attainable. EPA has approved the granting of water quality standards variances by States when circumstances might otherwise justify changing a use designation on grounds of unattainability (*i.e.*, the six circumstances described in 40 CFR 131.10(g)). In contrast to a change in standards that removes a use designation for a waterbody, a water quality standards variance is time-limited, only applies to the discharger to whom it is granted, and only applies to the pollutant parameter(s) upon which the finding of unattainability was based. The underlying standard remains in effect for all other purposes.

One example might be where the Commonwealth or a permittee demonstrates that the primary contact recreation use cannot be attained pursuant to 40 CFR 131.10(g) because of high levels of fecal coliforms and/or enterococci from a wastewater treatment facility, and it would cause widespread social and economic harm to comply with the standard and there is uncertainty whether an upgraded treatment technology might allow the designated use to be attained. In this case, a temporary variance may be appropriate. The variance would allow the discharger's permit to include limits based on relaxed criteria for fecal coliform and/or enterococci until the new technology is in place and it is determined if the underlying designated use is attainable. The practical effect of such a variance is to allow a permit to be written using less stringent criteria, while encouraging ultimate attainment of the underlying standard. A water quality standards variance provides a mechanism for ensuring compliance with sections 301(b)(1)(C) and 402(a)(1) of the CWA while also granting temporary relief to point source dischargers.

While 40 CFR 131.13 allows States to adopt variance procedures for State-adopted water quality standards, such State procedures may not be used to grant variances from Federally promulgated standards. It is appropriate to provide comparable Federal procedures to address new information that may become available. Therefore, under EPA's rule, the Region 2 Regional Administrator may grant water quality

standard variances where a permittee submits data demonstrating that the primary contact recreation designated use is not attainable for any of the reasons in 40 CFR 131.10(g). This variance procedure will apply to the primary contact recreation use for the Subject Waterbodies.

Today's rule spells out the process for applying for and granting such variances. EPA is establishing informal adjudication processes for reviewing and granting variance requests. That process is contained in 40 CFR 131.40(c)(4) of today's rule. Because water quality standards variances are revisions to water quality standards, the Regional Administrator will provide public notice of the proposed variance and an opportunity for public comment. EPA understands that variance related issues may arise in the context of permit issuance.

The variance procedures in today's rule require an applicant for a water quality standards variance to submit a request and supporting information to the Regional Administrator (or his/her delegatee). The applicant must demonstrate that the designated use is unattainable for one of the reasons specified in 40 CFR 131.10(g). A variance will not be granted if the use could be attained, at a minimum, by implementing effluent limitations required under sections 301(b) and 306 of the CWA and reasonable best management practices for nonpoint source control.

Under today's rule, a variance may not exceed five years or the term of the NPDES permit, whichever is less. A variance may be renewed if the permittee demonstrates that the use in question is still not attainable. Renewal of the variance may be denied if EPA finds that the conditions of 40 CFR 131.10(g) are not met or if the permittee did not comply with the conditions of the original variance.

V. Economic Analysis

Today's rule will have no direct impact on any entity because the rule simply establishes water quality standards (*e.g.*, use designations) which by themselves do not directly impose any costs. These standards, however, may serve as a basis for development of NPDES permit limits. In Puerto Rico, EPA Region 2 is the NPDES permitting authority and retains considerable discretion in implementing standards. Thus, until EPA Region 2 implements these water quality standards, there will be no effect on any entity. Nonetheless, EPA prepared a preliminary analysis to evaluate potential costs to NPDES dischargers in Puerto Rico associated with future implementation of EPA's Federal standards.

A. Identifying Affected Facilities

According to EPA's Permit Compliance System (PCS), there are 593 NPDES-permitted facilities in Puerto Rico. Eighty-four of the facilities are classified as major dischargers, and 509 are minor or general permit dischargers. EPA did not include general permit facilities in its analysis because data for such facilities are extremely limited, and flows are usually negligible. Furthermore, EPA could not determine if any of these facilities actually discharge to the affected waterbodies because location information is not available in EPA's PCS database. Therefore, EPA's analysis includes a universe of 285 permitted facilities (84 majors and 201 minors).

To identify facilities potentially affected by today's rule, EPA assumed that only facilities that have the potential to affect (*i.e.*, cause an increase in fecal coliform levels) the Subject Waterbodies for which EPA is designating a new primary contact recreation use may be affected by this rule. Using GIS software, EPA identified these facilities by overlaying PCS facilities with the potentially affected waters and their tributaries currently designated for a Class SC use. EPA assumed that only wastewater treatment plants or military facilities with similar effluent characteristics (*i.e.*, facilities having the potential to discharge fecal coliforms) would potentially be affected by today's rule. Table 1 summarizes the universe of potentially affected facilities by type and category.

TABLE 1.—ESTIMATED NUMBER OF FACILITIES POTENTIALLY AFFECTED BY THIS RULE

Category	Number of facilities		
	Major	Minor	Total
Military	1	2	3
Municipal	19	10	29
Total	20	12	32

B. Method For Estimating Potential Compliance Costs

EPA identified a total of 32 facilities (20 majors and 12 minors) that may be potentially affected by the primary contact designated use. EPA evaluated a sample of facilities based on discharger type and category from this group for potential cost impacts associated with the rule. For these sample facilities, EPA evaluated available effluent data from its PCS database to determine the potential controls that may ultimately be needed as a result of the rule.

EPA estimated on a case-by-case basis the most cost-effective control strategy for each sample facility to achieve compliance with the bacteria criteria. EPA assumed that projected effluent limits for fecal coliform will be applied as criteria end-of-pipe (a monthly geometric mean of 200 colonies/100 mL and not more than 20% of samples exceeding 400 colonies/100 mL) because the facilities' current permits apply the current criteria in the same manner. EPA assumed that a sample facility would incur costs if average monthly effluent concentrations (or existing permit limit, whichever is less) indicate that the facility would not be in compliance with the most stringent criterion.

EPA evaluated each facility's potential compliance with projected permit limits based on available monthly average fecal coliform values from the Agency's PCS database. If monthly average values are not available, EPA evaluated potential compliance based on maximum monthly values. EPA determined potential compliance with the projected limit for each sample facility based on the relative magnitude of the maximum average monthly values, the pattern of occurrence of such values (*i.e.*, when maximum values occurred), and current treatment performance characteristics (*e.g.*, BOD and TSS concentrations, compliance with current permit). For facilities exceeding their current limits, EPA assumed that facilities would install the necessary controls for compliance with current standards, and would incur costs for additional treatment process optimization (*e.g.*, increase chlorine dose, improve mixing

conditions, increase contact time) for compliance with the projected limit. For facilities that are in compliance with their current permit limits but would not comply with the projected limit, EPA also assumed that process optimization of their chlorination process may be necessary for compliance.

C. Results

EPA estimated the potential costs associated with the primary contact designated use for the Subject Waterbodies. Based on an evaluation of the sample of potentially affected facilities, EPA estimated that the potential total annual cost associated with the rule is $2.7 million.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866, (58 FR 51735 (October 4, 1993)) the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Today's rule simply establishes water quality standards that may serve as a basis for development of NPDES permit limits; it does not include any information collection, reporting, or record-keeping requirements.

Burden means the total time, effort or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business according to RFA default definitions for small business (based on SBA size standards); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering these economic impacts of today's rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This rule will not impose any requirements on small entities.

The RFA requires analysis of the impacts of a rule on the small entities subject to the rule's requirements. *See United States Distribution Companies* v. *FERC*, 88 F.3d 1105, 1170 (D.C. Cir. 1996). Today's rule establishes no requirements applicable to small entities, and so is not susceptible to regulatory flexibility analysis as prescribed by the RFA. ("[N]o [regulatory flexibility] analysis is necessary when an agency determines that the rule will not have a significant economic impact on a substantial number of small entities *that are subject to the requirements of the rule*," *United Distribution* at 1170, quoting *Mid-Tex Elec. Co-op* v. *FERC*, 773 F.2d 327, 342 (D.C. Cir. 1985) (emphasis added by *United Distribution* court).)

Under the CWA water quality standards program, States must adopt water quality standards for their waters and must submit those water quality standards to EPA for approval; if the Agency disapproves a State standard and the State does not adopt appropriate revisions to address EPA's disapproval, EPA must promulgate standards consistent with the statutory requirements. EPA also has the authority to promulgate criteria or standards in any case where the Administrator determines that a new or revised standard is necessary to meet the requirements of the Act. These State standards (or EPA-promulgated standards) are implemented through various water quality control programs including the NPDES program, which limits discharges to navigable waters except in compliance with an NPDES permit. The CWA requires that all NPDES permits include any limits on discharges that are necessary to meet applicable water quality standards.

Thus, under the CWA, EPA's promulgation of water quality standards establishes standards that the State generally implements through the NPDES permit process. In this case, however, EPA Region 2 is the NPDES permitting authority in Puerto Rico. As such, EPA Region 2 has discretion in developing discharge limits as needed to meet the standards. While Region 2's implementation of Federally promulgated water quality standards may result in new or revised discharge limits being placed on small entities, the standards themselves do not directly apply to any discharger, including small entities.

Today's rule, as explained earlier, does not itself establish any requirements that are directly applicable to small entities. As a result of this action, EPA Region 2 will need to ensure that permits it issues include any limitations on discharges necessary to comply with the standards established in this rule. In doing so, the Region will

have a number of choices associated with permit writing. While the implementation of the rule may ultimately result in some new or revised permit conditions for some dischargers, EPA's action today does not impose any of these as yet unknown requirements on small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local or Tribal governments or the private sector. The rule imposes no enforceable duty on the Commonwealth of Puerto Rico, or any other State, local or Tribal government or the private sector; rather, this rule establishes a designated use for primary contact recreation and associated bacteria criteria for the Subject Waterbodies, which, when combined with Commonwealth adopted water quality criteria, constitute water quality standards for those waterbodies. The Commonwealth and EPA may use these resulting water quality standards in implementing its water quality control programs. Today's rule does not regulate or affect any entity and, therefore, is not subject to the requirements of sections 202 and 205 of the UMRA.

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. As stated, the rule imposes no enforceable requirements on any party, including small governments. Thus, this rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The rule will not affect the nature of the relationship between EPA and States generally, for the rule only applies to waterbodies in Puerto Rico (which is considered a "State" for purposes of the water quality standards program). Further, the rule will not substantially affect the relationship of EPA and the Commonwealth of Puerto Rico, or the distribution of power or responsibilities between EPA and the various levels of government. The rule will not alter the Commonwealth's considerable discretion in implementing these water quality standards. Further, this rule will not preclude Puerto Rico from adopting water quality standards that meet the requirements of the CWA. Thus, Executive Order 13132 does not apply to this rule.

Although Executive Order 13132 does not apply to this rule, EPA did consult with representatives of the Commonwealth in developing this rule. Prior to this rulemaking action, EPA had numerous phone calls, meetings and exchanges of written correspondence with EQB to discuss EPA's concerns with the Commonwealth's water quality standards, possible remedies for addressing the inadequate sections of their water quality standards, the use designations and criteria in today's rule, and the Federal rulemaking process. For a more detailed description of EPA's interaction with the Commonwealth on this rulemaking, refer to section II.C.2. EPA will continue to work with the Commonwealth with regard to their ongoing efforts to adopt water quality standards that meet the requirements of the CWA, including water quality standards for the Subject Waterbodies.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. There are no Indian Tribes in Puerto Rico, where this rule applies. Thus, Executive Order 13175 does not apply to this rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045: "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an

environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to the Executive Order because it is not economically significant as defined in Executive Order 12866. Further, it does not concern an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113, section 12(d) (15 U.S.C. 272 *note*) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective March 26, 2004.

List of Subjects in 40 CFR Part 131

Environmental protection, Indian lands, Intergovernmental relations, Reporting and recordkeeping requirements, Water pollution control.

Dated: January 20, 2004.

Michael O. Leavitt,

Administrator.

■ For the reasons set forth in the preamble, EPA amends 40 CFR part 131 as follows:

PART 131—WATER QUALITY STANDARDS

■ 1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

Subpart D—[Amended]

■ 2. Section 131.40 is added to read as follows:

§ 131.40 Puerto Rico.

(a) *Use designations for marine waters.* In addition to the Commonwealth's adopted use designations, the following waterbodies in Puerto Rico have the beneficial use designated in this paragraph (a) within the bays specified below, and within the Commonwealth's territorial seas, as defined in section 502(8) of the Clean Water Act, and 33 CFR 2.05–5, except such waters classified by the Commonwealth as SB.

Waterbody segment	From	To	Designated use
Coastal Waters	500m offshore	3 miles offshore	Primary Contact Recreation.
Guayanilla & Tallaboa Bays	Cayo Parguera	Punta Verraco	Primary Contact Recreation.
Mayaguez Bay	Punta Guanajibo	Punta Algarrobo	Primary Contact Recreation.
Ponce Port	Punta Carenero	Punta Cuchara	Primary Contact Recreation.
San Juan Port	mouth of Río Bayamón	Punta El Morro	Primary Contact Recreation.
Yabucoa Port	Punta Icacos	Punta Yeguas	Primary Contact Recreation.

(b) *Criteria that apply to Puerto Rico's marine waters.* In addition to all other Commonwealth criteria, the following criteria for bacteria apply to the waterbodies in paragraph (a) of this section:

Bacteria: The fecal coliform geometric mean of a series of representative samples (at least five samples) of the waters taken sequentially shall not exceed 200 colonies/100 ml, and not more than 20 percent of the samples shall exceed 400 colonies/100 ml. The enterococci density in terms of geometric mean of at least five representative samples taken sequentially shall not exceed 35/100 ml. No single sample should exceed the upper confidence limit of 75% using 0.7 as the log standard deviation until sufficient site data exist to establish a site-specific log standard deviation.

(c) *Water quality standard variances.* (1) The Regional Administrator, EPA Region 2, is authorized to grant variances from the water quality standards in paragraphs (a) and (b) of this section where the requirements of this paragraph (c) are met. A water quality standard variance applies only to the permittee requesting the variance and only to the pollutant or pollutants specified in the variance; the underlying water quality standard otherwise remains in effect.

(2) A water quality standard variance shall not be granted if:

(i) Standards will be attained by implementing effluent limitations required under sections 301(b) and 306 of the CWA and by the permittee implementing reasonable best management practices for nonpoint source control; or

(ii) The variance would likely jeopardize the continued existence of any threatened or endangered species listed under section 4 of the Endangered Species Act or result in the destruction or adverse modification of such species' critical habitat.

(3) A water quality standards variance may be granted if the applicant

demonstrates to EPA that attaining the water quality standard is not feasible because:

(i) Naturally occurring pollutant concentrations prevent the attainment of the use;

(ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating Commonwealth water conservation requirements to enable uses to be met;

(iii) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

(iv) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way which would result in the attainment of the use;

(v) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like unrelated to water quality, preclude attainment of aquatic life protection uses; or

(vi) Controls more stringent than those required by sections 301(b) and 306 of the CWA would result in substantial and widespread economic and social impact.

(4) Procedures. An applicant for a water quality standards variance shall submit a request to the Regional Administrator of EPA Region 2. The application shall include all relevant information showing that the requirements for a variance have been met. The applicant must demonstrate that the designated use is unattainable for one of the reasons specified in paragraph (c)(3) of this section. If the Regional Administrator preliminarily determines that grounds exist for granting a variance, he/she shall provide public notice of the proposed variance and provide an opportunity for public comment. Any activities required as a condition of the Regional Administrator's granting of a variance shall be included as conditions of the NPDES permit for the applicant. These terms and conditions shall be incorporated into the applicant's NPDES permit through the permit reissuance process or through a modification of the permit pursuant to the applicable permit modification provisions of Puerto Rico's NPDES program.

(5) A variance may not exceed five years or the term of the NPDES permit, whichever is less. A variance may be renewed if the applicant reapplies and demonstrates that the use in question is still not attainable. Renewal of the variance may be denied if the applicant did not comply with the conditions of the original variance, or otherwise does not meet the requirements of this section.

[FR Doc. 04–1545 Filed 1–23–04; 8:45 am]
BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 0, 1, 76, and 78

[CS Docket No. 00–78, FCC 03–55]

Implementation of Electronic Filing for the Multichannel Video and Cable Television Service and the Cable Television Relay Service

AGENCY: Federal Communications Commission.

ACTION: Final rule; announcement of effective date.

SUMMARY: The Federal Communications Commission received Office of Management and Budget (OMB) approval of the rules implementing the electronic filing for the Multichannel Video and Cable Television Service and the Cable Television Relay Service published at 68 FR 26997 (May 19, 2003). The forms associated with this final rule are FCC Form 321, Aeronautical Frequency Notification, (OMB Control No. 3060–0310); FCC Form 322 Cable Community Registration, (OMB Control No. 3060–0331); FCC Form 324, Operator, Mail Address, and Operational Information Changes, (OMB Control No. 3060–1045 (new collection)); and FCC Form 327, Application for Cable Television Relay Service Station (CARS) Authorization, (OMB Control No. 3060–0055)

DATES: The amendments to 47 CFR 0.401, 1.1104, 1.1111, 1.1701 through 1.1707, 76.403, 76.620, 76.1610, 76.1801, 76.1803, 76.1804, 78.17, 78.20, 78.35 and 78.109 at 68 FR 26997 (May 19, 2003) are effective January 26, 2004.

SUPPLEMENTARY INFORMATION: The Federal Communications Commission released the Report and Order (R&O) in CS Docket No. 00–78; FCC 03–55, on March 19, 2003. The R&O revised our rules governing the filing of the majority of forms filed by the public for the Multichannel Video and Cable Television Service ("MVCTS") and applications in the Cable Television Relay Service ("CARS") and provided for electronic filing. The revised rule sections at 68 FR 26997, May 19, 2003, contained information collection requirements that required OMB approval. The Commission announces OMB approval and the rules are effective January 26, 2004. For questions concerning the effective date for the rule revisions contact Wayne T. McKee, Media Bureau, Engineering Division at (202) 418–2355 or via the Internet at *Wayne.McKee@fcc.gov.*

Pursuant to the Paperwork Reduction Act of 1995, Pub. L. 104–13, an agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. Notwithstanding any other provisions of law, no person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Questions concerning this revised information collection should be directed to Leslie F. Smith, Federal Communications Commission, (202) 418–0217 or via the Internet at *Leslie.Smith@fcc.gov.*

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 04–1531 Filed 1–23–04; 8:45 am]
BILLING CODE 6712–01–P

Proposed Rules

Federal Register
Vol. 69, No. 16
Monday, January 26, 2004

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

OFFICE OF PERSONNEL MANAGEMENT

5 CFR Parts 213, 297, 315, 334, 362, 537, and 550

RIN 3206–AK27

Excepted Service, Privacy Procedures for Personnel Records, Career and Career-Conditional Employment, Temporary Assignment of Employees Between Federal Agencies and State, Local, and Indian Tribal Governments, Institutions of Higher Education, and Other Eligible Organizations, Presidential Management Fellows Program, Repayment of Student Loans, and Pay Administration (General)

AGENCY: Office of Personnel Management.

ACTION: Proposed rule.

SUMMARY: The Office of Personnel Management (OPM) is issuing proposed regulations modifying the Presidential Management Intern (PMI) Program. The regulations implement Executive Order 13318, which renames the PMI Program as the Presidential Management Fellows Program, with two components: Presidential Management Fellows (Fellows) and Senior Presidential Management Fellows (Senior Fellows). The regulations outline OPM and agency responsibilities with respect to administration of the Program, and amend other regulations to reflect the changes prescribed by the Executive Order.

DATES: Comments must be received by March 26, 2004.

ADDRESSES: Send, fax, or deliver written comments to Ms. Leah M. Meisel, Deputy Associate Director, Center for Talent and Capacity Policy, U.S. Office of Personnel Management, 1900 E Street, NW., Room 6500, Washington, DC 20415, e-mail *employ@opm.gov*, FAX: 202–606–2329.

FOR FURTHER INFORMATION CONTACT: Ms. Christina Vay by phone on 202–606–0960, by FAX on (202) 606–2329, or by TTY on (202) 418–3134.

SUPPLEMENTARY INFORMATION: The Presidential Management Intern (PMI) Program was established by Executive Order in 1977 to attract highly qualified persons with graduate degrees from a variety of academic disciplines who demonstrated an interest in, and commitment to, leadership in the Federal service. PMI candidates were nominated by their graduate schools, and, after a rigorous assessment process conducted by OPM, the best qualified finalists were identified as eligible for excepted appointments by Federal departments and agencies. Following successful completion of a 2-year internship that included formal training and rotational assignments, PMIs could be appointed without further competition to positions in the competitive service.

Recently the President signed Executive Order 13318 "modernizing" the PMI Program, in keeping with his emphasis on the strategic management of the Federal Government's human capital. Renamed the Presidential Management Fellows Program to better reflect its high standards, rigor, and prestige, it now consists of two components: Presidential Management Fellows (generally comparable to Presidential Management Interns and hereafter referred to as Fellows), and the new Senior Presidential Management Fellows (hereafter referred to as Senior Fellows). The Executive Order charges the Director of OPM with developing, managing, and evaluating the Program.

Renaming the Program

As noted above, the PMI Program's modernization includes a change in its name. Over the years, the term "intern" has been applied to numerous Federal employment programs that cover all levels and types of employees and appointments, including part-time high school and college students and recent college graduates, as well as PMIs. Some of these programs are designed to lead to a career in the Federal service and others are not. While these programs have been very successful, they do not reflect the degree of rigor and academic achievement required of the original PMI Program. Accordingly, to clearly distinguish what is now (and will continue to be) the Federal Government's premier leadership development program, the President has re-designated it as the Presidential Management Fellows Program. To reflect the name change, we are making conforming amendments to Title 5, Code of Federal Regulations, part 297 (Privacy Procedures for Personnel Records), part 334 (Temporary Assignment of Employees Between Federal Agencies and State, Local, and Indian Tribal Governments, Institutions of Higher Education, and Other Eligible Organizations), part 537 (Repayment of Student Loans), and part 550 (Pay Administration (General)).

Introducing New Senior Fellows

As noted, the Executive order also introduces a new component of the Program: Senior Fellows. Designed to complement Presidential Management Fellows, Senior Fellow appointments are reserved for those outstanding individuals who also have a demonstrated commitment to Federal service, but who already possess outstanding leadership, managerial, and/or professional/technical experience. The proposed regulations will allow OPM to recruit these highly talented individuals from within and outside Government; evaluate and appoint them at a more senior level; and, after a period of intensive OPM and agency development that will prepare them for senior executive or senior level technical/professional responsibilities, deploy them to meet critical agency leadership succession requirements.

To this end, the Executive order authorizes all agencies in the executive branch to appoint Senior Fellows, and the proposed regulations authorize appointment at grade GS–13, GS–14, or GS–15 (or their equivalents), depending on the candidate's qualifications. The proposed regulations also set forth rigorous assessment, appointment, training, development, evaluation, promotion, conversion, and placement requirements for Senior Fellows. These requirements are as arduous as those established for Fellows (described below). In this regard, the proposed regulations authorize OPM to conduct a rigorous centralized announcement and assessment process, with Senior Fellow finalists determined by the OPM Director based on the recommendations of a review committee appointed by the Director. Upon selection, Senior Fellow finalists may be appointed by agencies

under a new Schedule A excepted appointing authority designated as 5 CFR 213.3102(jj); if the appointing agencies' positions are excepted from the competitive service, the agencies appoint the Senior Fellows under an appropriate, similar agency hiring authority.

The proposed regulations include mandatory training and developmental assignments for Senior Fellows designed to prepare them for senior positions in the career Federal service and require periodic performance evaluations to ensure that the Senior Fellows are meeting the Program's high expectations in this regard. The proposed regulations also require that an agency's Executive Resources Board (ERB) certify that Senior Fellows have successfully met all Program requirements; upon such certification, Senior Fellows become eligible for non-competitive placement in career Senior Executive Service (SES) or equivalent positions in the same manner and subject to the same Qualifications Review Board review as graduates of an OPM-approved SES candidate development program (CDP).

Determining the Number of Fellows and Senior Fellows

In addition to the change in the Program's name, the President's Executive order also eliminates previous limits on the number of Fellows that agencies may appoint in any given year. Although the Executive order is silent as to the number of Senior Fellow appointments, the proposed regulations would authorize the Director of OPM to determine the number of Fellow and Senior Fellow appointments to the Program each year, based on recommendations from the new Chief Human Capital Officers Council, as well as input from other agencies. This approach will ensure maximum flexibility without diluting the extensive selection requirements.

Expanding the Program to Excepted Service Agencies

The Executive order expands the Program to permit agencies with positions that are excepted from the competitive service to appoint Fellows and Senior Fellows. This provision will allow those agencies to fully participate in this prestigious Program and provide greater opportunities to Fellow and Senior Fellow candidates. As explained below, those Fellows and Senior Fellows who are appointed to positions in excepted service agencies may also be appointed without further competition to permanent positions for which they qualify in the competitive service, upon their successful completion of the Program.

Providing Greater Flexibility in Entry Level

The proposed regulations permit agencies to appoint Fellows at grades up to GS–12 (or its equivalent), depending on the candidate's qualifications, as described below. They also provide for the appointment of Senior Fellows at grades GS–13 through GS–15 (or their equivalents), depending on the candidate's qualifications. An increasing number of Program candidates have extensive professional and post-graduate academic qualifications, as well as substantial prior work experience, often in very senior positions. Accordingly, the proposed regulations authorize agencies to appoint Fellows and Senior Fellows at higher entry grades.

Moreover, to ensure that the Federal Government can compete on an individual basis for the very best candidates, agencies may continue to use the range of recruiting incentives ordinarily available to agencies in other contexts, including the use of student loan repayments under 5 CFR part 537 and other incentives such as superior qualifications appointments under 5 CFR 531.203(b).

Establishing Rigorous Training and Development Requirements

The proposed regulations establish rigorous training and development requirements for Fellows and Senior Fellows, including rotational and/or developmental assignments of varying duration and at least 80 hours each year of formal classroom training. As was the case before with the previous PMI Program, OPM will continue to serve as a clearinghouse by identifying and disseminating appropriate training opportunities to program participants.

Agencies are required to work closely with OPM to provide Senior Fellows with training and development activities. In addition, Senior Fellows must complete the 80 hours of formal classroom training provided through an OPM-approved SES CDP; the OPM Director or designate may approve an exception for formal classroom training to be provided by a source other than the CDP.

Eliminating Time-in-Grade Requirements for Promotion

As part of the effort to modernize the Program, the proposed regulations give agencies the flexibility to promote Fellows and Senior Fellows without regard to time-in-grade (TIG) requirements established by 5 CFR part 300. Even though OPM does not require TIG for other excepted service appointments, these requirements were imposed on PMI Program participants. Thus, agencies were not permitted to consider PMIs for "career ladder" and competitive promotions to higher grades for at least 52 weeks, even though the PMIs might have already demonstrated the ability to perform (and excel) at that higher grade.

Under the proposed regulations, agencies would be required to establish promotion policies for Fellows and Senior Fellows; in addition, both Fellows and Senior Fellows would still have to meet qualification requirements for promotion. Note that the proposed regulations would limit the promotion of a Fellow to a grade no higher than GS–13 or its equivalent while in the Program; a Senior Fellow would be limited to GS–15 or its equivalent while in the Program.

Assuring Conversion to Competitive Status

The proposed regulations require that Fellows and Senior Fellows must be certified by the agency's ERB before being appointed, because of the Board's succession planning and leadership development responsibilities. If the ERB does not certify a Fellow or Senior Fellow, the Fellow or Senior Fellow may request reconsideration of that determination by OPM. OPM will normally respond within 60 days of receipt of the request.

After certification, an agency shall appoint a Fellow or Senior Fellow to a full-time, permanent position in the agency upon successful completion of the Program. If the agency is in the competitive service, the Fellow or Senior Fellow is appointed to a full-time, permanent position in the competitive service without further competition. If the agency is in the excepted service, the Fellow or Senior Fellow is appointed to a full-time, permanent position in that agency under an appropriate authority. However, in order to facilitate the mobility of Program graduates between the excepted and the competitive services, the proposed regulations provide that a Fellow or Senior Fellow who is initially appointed to a full-time, permanent position in an excepted service agency upon completion of the Program may, at a later date, be appointed to a position in the competitive or, in the case of a Senior Fellow, to the executive service without further competition. This flexibility may be utilized on a one time only basis, but does not have a time limitation.

Simplifying Language

As part of OPM's on-going efforts to simplify our regulations, the proposed regulations revise part 362 to make it easier to read and understand, and rename it the Presidential Management Fellows Program.

Regulatory Flexibility Act

I certify that this regulation will not have a significant economic impact on a substantial number of small entities because it affects only certain potential applicants and Federal employees.

Executive Order 12866, Regulatory Review

This rule has been reviewed by the Office of Management and Budget in accordance with Executive Order 12866.

List of Subjects in 5 CFR Parts 213, 297, 315, 334, 362, 537, and 550

Administrative practice and procedure, Claims, Colleges and Universities, Government employees, Indians, Intergovernmental relations, Privacy, Reporting and recordkeeping requirements, Wages.

Office of Personnel Management.

Kay Coles James,

Director.

Accordingly, OPM proposes to amend 5 CFR parts 213, 297, 315, 334, 362, 537, and 550 as follows:

PART 213—EXCEPTED SERVICE

1. Revise the authority citation for part 213 to read as follows:

Authority: 5 U.S.C. 3301 and 3302, E.O. 10577, 3 CFR 1954–1958 Comp., p. 218; Sec. 213.101 also issued under 5 U.S.C. 2103; Sec. 213.3102 also issued under 5 U.S.C. 3301, 3302, 3307, 8337(h) and 8456; E.O. 13318; 38 U.S.C. 4301 *et seq.*; Pub. L. 105–339, 112 STAT 3182–83; and E.O. 13162.

2. Revise paragraph (ii) of § 213.3102 and add paragraph (jj) to read as follows:

§ 213.3102 Entire executive civil service.

* * * * *

(ii) Positions of Fellows in the Presidential Management Fellows Program. Initial appointments of Fellows are made at either the GS–9, GS–11, or GS–12 level (or their equivalents), depending on the candidate's qualifications. Appointments are made under this authority for 2 years; however, upon approval of OPM, the head of the department, agency, or component within the Executive Office of the President may extend the appointment for up to one additional year. Upon the Fellow's satisfactory completion of the Program, the employing agency shall noncompetitively appoint the Fellow to a full-time, permanent position in the competitive service, or in the excepted service if the employing agency's position is excepted from the competitive service, in accordance with the provisions of Executive Order 13318 and the requirements prescribed in § 315.708 and part 362 of this chapter. A Fellow appointed to a position in the excepted service upon successful completion of the Program may be appointed immediately after completion of the Program or at a later date, without further competition and only one time, if selected for a full-time, permanent position in the competitive service by an agency, in accordance with the provisions of Executive Order 13318 and the requirements prescribed in § 315.708 and part 362 of this chapter.

(jj) Positions of Senior Fellows in the Presidential Management Fellows Program. Initial appointments are made at the GS–13, GS–14, or GS–15 level (or their equivalents), depending on the candidate's qualifications. Appointments may be made under this authority for up to 2 years; however, upon approval of OPM, the head of the department, agency, or component within the Executive Office of the President may extend the Senior Fellow's appointment for up to one additional year. Upon the Senior Fellow's satisfactory completion of the Program, the employing agency shall non-competitively appoint the Senior Fellow to a full-time, permanent position in the competitive service, or in the excepted service if the employing agency's position is excepted from the competitive service, in accordance with the provisions of Executive Order 13318 and the requirements prescribed in § 315.708 and part 362 of this chapter. A Senior Fellow appointed to a position in an excepted service agency upon successful completion of the Program may be appointed immediately after completion of the Program or at a later date, without further competition and only one time, if selected for a full-time, permanent position in the competitive service by an agency, in accordance with the provisions of Executive Order 13318 and the requirements prescribed in § 315.708 and part 362 of this chapter. If a Senior Fellow successfully completes the Program, as certified by the appointing agency's Executive Resources Board (pursuant to § 362.204(c) of this chapter), he/she may be appointed to a position in the Senior Executive Service (SES) (or the equivalent) without further competition and only one time, in the same manner, and subject to the same Qualifications Review Board review, as an individual who has successfully completed an OPM-approved SES candidate development program under parts 317 and 412 of this chapter.

* * * * *

PART 297—PRIVACY PROCEDURES FOR PERSONNEL RECORDS

3. The authority citation for part 297 continues to read as follows:

Authority: Sec. 3, Pub. L. 93–579, 88 Stat. 1896 (5 U.S.C. 552a).

Subpart E—Exempt Records

4. Revise paragraph (b)(6) of § 297.501 to read as follows:

§ 297.501 Exemptions.

* * * * *

(b) * * *

(6) *Presidential Management Fellows Program Records (OPM/CENTRAL–11).* All information in these records that meets the criteria stated in 5 U.S.C. 552a(k)(6) is exempt from the requirements of 5 U.S.C. 552a(d), relating to access to and amendment of records by the data subject. This exemption is claimed because portions of this system relate to testing or examining materials used solely to determine individual qualifications for appointment or promotion in the Federal service and access to or amendment of this information by the data subject would compromise the objectivity and fairness of the testing or examining process.

* * * * *

PART 315—CAREER OR CAREER-CONDITIONAL EMPLOYMENT

5. Revise the authority citation for part 315 to read as follows:

Authority: 5 U.S.C. 1302, 3301, and 3302; E.O. 10577. 3 CFR, 1954–1958 Comp. P. 218, unless otherwise noted; and E.O. 13162. Secs. 315.601 and 315.609 also issued under 22 U.S.C. 3651 and 3652. Secs. 315.602 and 315.604 also issued under 5 U.S.C. 1104. Sec. 315.603 also issued under 5 U.S.C. 8151. Sec. 315.605 also issued under E.O. 12034, 3 CFR, 1978 Comp. p. 111. Sec. 315.606 also issued under E.O. 11219, 3 CFR, 1964–1965 Comp. p. 303. Sec. 315.607 also issued under 22 U.S.C. 2506. Sec. 315.608 also issued under E.O. 12721, 3 CFR, 1990 Comp., p. 293. Sec. 315.610 also issued under 5 U.S.C. 3304(d). Sec. 315.611 also issued under Section 511, Pub. L. 106–117, 113 STAT. 1575–76. Sec. 315.708 also issued under E.O. 13318. Sec. 315.710 also issued under E.O. 12596, 3 CFR, 1987, Comp., p. 229. Subpart I also issued under 5 U.S.C. 3321, E.O. 12107, 3 CFR, 1978 Comp., p. 264.

Subpart B—The Career-Conditional Employment System

6. Revise paragraph (b)(1)(xiii) of § 315.201 to read as follows:

§ 315.201 Service requirement for career tenure.

* * * * *

(b) * * *

(1) * * *

(xiii) The date of appointment as a participant in the Presidential Management Fellows Program under Schedule A, § 213.3102(ii) and (jj) of this chapter, provided the employee's appointment is converted to career or career-conditional appointment under § 315.708;

* * * * *

Subpart G—Conversion to Career or Career-Conditional Employment From Other Types of Employment

7. Revise § 315.708 to read as follows:

§ 315.708 Conversion based on service as a Fellow or Senior Fellow in the Presidential Management Fellows Program.

(a) *Agency authority.* An agency shall appoint a Fellow or Senior Fellow to a full-time, permanent position in the competitive or excepted service, as applicable, without further competition when the Fellow or Senior Fellow:

(1) Has satisfactorily completed the Program as outlined in part 362 of this chapter; and

(2) Meets the citizenship requirement.

(b) *Tenure upon conversion.* (1) Except as provided in paragraph (b)(2) of this section, a Fellow or Senior Fellow appointed under paragraph (a) of this section becomes a career-conditional employee.

(2) A Fellow or Senior Fellow appointed under paragraph (a) of this section becomes a career employee when he or she has completed the service requirement for career tenure or is excepted from it under § 315.201(c).

(c) *Career Status.* A Fellow or Senior Fellow appointed to a full-time, permanent position in the competitive service under this section does not serve a probationary period and acquires career or career-conditional status immediately upon appointment to the competitive service.

PART 334—TEMPORARY ASSIGNMENT OF EMPLOYEES BETWEEN FEDERAL AGENCIES AND STATE, LOCAL, AND INDIAN TRIBAL GOVERNMENTS, INSTITUTIONS OF HIGHER EDUCATION, AND OTHER ELIGIBLE ORGANIZATIONS

8. The authority citation for part 334 continues to read as follows:

Authority: 5 U.S.C. 3376; E.O. 11589, 3 CFR 557 (1971–1975).

9. Revise the definition of *Employee* in § 334.102 to read as follows:

* * * * *

Employee means an individual serving in a Federal agency under a career or career-conditional appointment including career appointees in the Senior Executive Service, individuals under appointments of equivalent tenure in excepted service positions, and Fellows and Senior Fellows in the Presidential Management Fellows Program; or an individual employed for at least 90 days in a career position with a State, local, or Indian tribal government, institution of higher education, or other eligible organization;

* * * * *

10. Revise part 362 to read as follows:

PART 362—PRESIDENTIAL MANAGEMENT FELLOWS PROGRAM

Subpart A—Definitions

Sec.

362.101 Definitions.

Subpart B—Program Administration

362.201 Agency programs.
362.202 Announcement, nomination and selection.
362.203 Appointment and extensions.
362.204 Development, evaluation, promotion, and certification.
362.205 Waiver.
362.206 Movement between departments or agencies.
362.207 Withdrawal and readmission.
362.208 Resignation, termination, reduction in force, and appeal rights.
362.209 Placement upon completion.

Authority: E.O. 13318.

Subpart A—Definitions

§ 362.101 Definitions.

For purposes of this part,

(a) An *agency* means a component within the Executive Office of the President, or an Executive department, Government corporation, or independent establishment as defined in 5 U.S.C. 101, 103, and 104, respectively.

(b) An *Executive Resources Board (ERB)* has the same meaning as specified in § 317.501(a) of this chapter.

(c) A *Presidential Management Fellow* or *Fellow* is an individual appointed, at the GS–9, GS–11, or GS–12 level (or equivalent), in the excepted service under § 213.3102(ii) of this chapter, or under an appropriate agency hiring authority if the agency's position is in the excepted service (referred to in this part as an excepted service agency). The individual must have completed a graduate course of study at a qualifying college or university, received the nomination of the dean or academic director, successfully completed an Office of Personnel Management (OPM) administered assessment process, been selected as a finalist, and been appointed by an agency as a Presidential Management Fellow.

(d) A *Qualifications Review Board (QRB)* has the same meaning as specified in § 317.502(a) of this chapter.

(e) A *qualifying college or university* is an academic institution formally accredited by an organization that accredits colleges and universities and that is recognized by the Secretary of the U.S. Department of Education (34 CFR part 602).

(f) A *Senior Presidential Management Fellow* or *Senior Fellow* is an individual appointed, at the GS–13, GS–14, or GS–15 level (or equivalent), in the excepted service under § 213.3102(jj) of this chapter, or other appropriate agency hiring authority if the agency's position is in the excepted service (referred to in this part as an excepted service agency). The individual must have completed a graduate course of study at a qualifying college or university; have an outstanding record of achievement in an applicable leadership, policy, managerial, professional, or technical position or area; have successfully completed an OPM-administered assessment process; been selected as a finalist by the OPM Director; and been appointed by an agency as a Senior Fellow. The candidate may request a waiver from the OPM Director on the requirement for completing a graduate course of study.

Subpart B—Program Administration

§ 362.201 Agency programs.

(a) Annually, on or about October 1 of each year, OPM will determine the total number of Fellows or Senior Fellows that may be appointed during that fiscal year (FY). That determination shall be based on input from the Chief Human Capital Officers Council, as well as input from agencies not represented on the Council.

(b) Thereafter, subject to the provisions and requirements of this chapter, an agency may appoint individuals selected by the OPM Director as Fellows and/or Senior Fellows according to its short-, medium-, and long-term senior leadership and related (senior policy, professional, technical, and equivalent) recruitment, development, and succession requirements, as set forth in 5 U.S.C. 1103(c)(2)(C).

§ 362.202 Announcement, nomination and selection.

(a) At least once each year, OPM shall announce the availability of Fellow and Senior Fellow appointments and conduct a competition for those finalist selections as set forth below.

(b) *Fellows.* (1) Graduate students from all academic disciplines who complete or expect to complete, by August 31 of the academic year, an advanced degree from a qualifying college or university are eligible to become Fellows. These individuals must demonstrate an exceptional ability for, as well as a clear interest in and commitment to, leadership in the analysis and management of public policies and programs.

(2) For an individual to apply to become a Fellow:

(i) His/her school must first establish a competitive nomination process to ensure that all eligible graduate students are aware of the Presidential Management Fellows Program and know how to apply for nomination. The school must establish procedures to ensure that each candidate receives careful and thorough review and receives equal opportunity for nomination.

(ii) He/she must compete in the school's nomination process.

(iii) His/her school must rate those who want to be considered for nomination either qualified or not qualified. The school shall determine preliminary eligibility for veterans' preference, and must nominate any student who is eligible for veterans' preference and is found qualified for nomination. Students eligible for veterans' preference who believe they met the school's nomination qualification requirements, but were not nominated, may obtain a review by OPM by requesting it in writing.

(iv) He/she must be officially nominated by the dean, chairperson, or academic program director using an OPM-provided application form.

(3) OPM will select Fellow finalists based on an OPM evaluation of each candidate's experience and accomplishments as provided by the application via the application process and the results of a rigorous structured assessment process.

(4) OPM will notify individual candidates of their selection as a Fellow finalist. OPM will send all participating agencies the list of Fellows finalists for consideration. Agencies may select and appoint a finalist as a Fellow, subject to the application of veterans' preference requirements.

(c) *Senior Fellows.* (1) Any individual with an exceptional record of experience and achievement in a leadership (supervisory or managerial), policy, professional, or technical position below the executive level, in an area relevant to the appointing agency's mission or succession requirements, and (unless waived by OPM) have completed a graduate course of study from a qualifying college or university, may apply for appointment as a Senior Fellow. Candidates should evidence a strong commitment to public service and be able to clearly demonstrate that, by virtue of their competencies and accomplishments to date, they have the potential to assume a senior executive or senior level policy, professional, or technical position in the Federal Government after a relatively brief but intensive period of training and development.

(2) The Director of OPM will select Senior Fellow finalists based on an evaluation of each candidate's experience and accomplishments as indicated in the application and the results of a structured assessment process.

(i) The OPM Director will appoint a Senior Presidential Management Fellows Selection Committee to oversee the evaluation of Senior Fellow candidates and recommend finalists; the Committee may also recommend, on a case-by-case basis, that the graduate degree requirement be waived by the OPM Director for an exceptional Senior Fellow candidate, in accordance with § 362.203(a)(3)(ii)(C).

(ii) The Selection Committee will be chaired by a career member of the Senior Executive Service (SES) and will comprise individuals (including those from within the Federal Government, such as members of the Chief Human Capital Officers Council, as appropriate, and/or others deemed appropriate by the Director of OPM who are not Federal employees) of high stature and accomplishment who are committed to excellence in the public service.

(3) OPM will notify each individual candidate of his/her selection as a Senior Fellow finalist. OPM will send all participating agencies the list of Senior Fellow finalists for consideration. Agencies may select and appoint a finalist as a Senior Fellow, subject to the application of veterans' preference requirements.

§ 362.203 Appointment and extensions.

(a) *Appointment.* (1) An agency must appoint Fellows and Senior Fellows using the excepted service appointing authority provided by 5 CFR 213.3102(ii) or (jj) of this chapter or other appropriate authority if applicable.

(2)(i) Fellows are appointed for a initial period of 2 years.

(ii) Upon approval of the agency's Executive Resources Board (ERB), Senior Fellows are appointed for an initial period of up to 2 years, depending on individual qualifications and competencies.

(iii) The OPM Director may approve an extension of a Fellow's or Senior Fellow's appointment for up to one additional year upon written request by the head of an agency; such requests must be received at least 90 days before the end of the initial appointment.

(3) An agency may appoint a Fellow or Senior Fellow any time after the individual has been notified that he/she has been selected as a finalist, but not more than 12 months after the Fellow or Senior Fellow was so selected. However, the OPM Director may approve a written agency request to appoint a Fellow or Senior Fellow after that deadline, so long as the agency request is submitted no later than 30 days prior to the end of the 12-month period.

(4)(i) An agency may not appoint a Fellow or Senior Fellow unless and until he or she has met all graduate degree requirements.

(ii) If a Fellow or Senior Fellow does not complete all degree requirements by August 31 of the year in which the Fellow or Senior Fellow was selected as a finalist, the Fellow's or Senior Fellow's finalist status is terminated. The OPM Director may grant exceptions on a case-by-case basis.

(iii) The OPM Director may waive the graduate degree requirement for a Senior Fellow on a case-by-case basis. The Senior Presidential Management Fellows Selection Committee may recommend, on a case-by-case basis, that the OPM Director waive graduate degree requirements for an exceptional Senior Fellow candidate.

(b) *Citizenship.* (1) United States citizenship is not required of Fellows and Senior Fellows because their appointments are in the excepted service.

(2) An agency is only authorized to appoint a Fellow or Senior Fellow who is not a citizen under the following conditions:

(i) The individual is lawfully admitted to the United States as a permanent resident or is otherwise authorized by the Bureau of Immigration and Citizenship Services to be employed;

(ii) The agency is authorized to pay the noncitizen under the annual appropriations Act or any agency-specific enabling statute; and

(iii) The individual will acquire United States citizenship before appointment to the competitive service under part 315 of this chapter.

(c) *Grade.* (1) An agency must appoint a Fellow at the grade GS–9 level, or its equivalent, at a minimum. However, if the agency determines that a Fellow meets the requisite qualification requirements (general or specialized experience, academic credentials, professional certifications, etc.), the agency may appoint the Fellow at the grade GS–11 or GS–12 level, or their equivalents.

(2) An agency must appoint a Senior Fellow at the grade GS–13 level, or its equivalent, at a minimum. However, if the agency determines that a Senior Fellow meets the requisite qualification requirements (general leadership, managerial, or specialized experience, academic credentials, professional certifications, etc.), the agency may appoint the Senior Fellow at the grade GS–14 or GS–15 level, or their equivalents.

§ 362.204 Development, evaluation, promotion, and certification.

(a) *Individual development plans.* The appointing agency will approve an individual development plan (IDP) for its Fellows and Senior Fellows that sets forth the specific developmental activities (training courses, developmental assignments, rotations, etc.) designed to impart the competencies of the occupation or functional discipline in which the Fellow or Senior Fellow is most likely to be placed. The IDP of a Senior Fellow must be approved by the appointing agency's ERB.

(b) *Required developmental activities.* (1) OPM will provide orientation and graduation programs for each class or cohort of Fellows and Senior Fellows, and will serve as a clearinghouse for available training opportunities.

(2) The appointing agency will provide each Fellow and Senior Fellow with formal classroom training during the Program:

(i) For each Fellow, the appointing agency will provide a minimum of 80 hours per year of formal classroom training that addresses the core competencies required of the occupation or functional discipline in which the Fellow will most likely be placed upon completion of the Program and conversion to a full-time, permanent position.

(ii) For each Senior Fellow, the appointing agency will make sure that each Senior Fellow will complete the 80 hours of formal classroom training provided through the OPM-approved SES candidate development program. The OPM Director or designate may approve an exception for formal classroom training to be provided by a source other than the CDP.

(3) The appointing agency will assign each Senior Fellow a mentor, who shall be a member of the SES (or equivalent). The mentor will assist the Senior Fellow in the development of his/her IDP. The ERB may consult with the mentor in evaluating the candidate.

(4) The appointing agency will provide each Fellow and Senior Fellow with at least one rotational or developmental assignment with full-time management and/or technical responsibilities consistent with the Fellow or Senior Fellow's IDP. With respect to this requirement:

(i)(A) Each Fellow must receive at least one developmental assignment of 4–6 months in duration in the occupation or functional discipline in which the Fellow will most likely be placed, with full-time management and/or technical responsibilities consistent with the Fellow's IDP.

(B) In addition, the Fellow may receive at least one other short-term rotational assignment of 4 to 6 months in duration, at the appointing agency's discretion, to an occupation or functional area different from the one in which the Fellow will most likely be placed; and

(ii) Each Senior Fellow will receive at least one long-term developmental assignment of at least 12 months in duration (including classroom training required by the Program), during which time the Senior Fellow will serve with full responsibilities for accomplishing the duties of that position.

(c) *Performance and progress evaluation.* (1) Each Fellow and Senior Fellow will be placed on a performance plan, as prescribed by part 430 of this chapter or other applicable law or regulation, establishing performance elements and standards that are directly related to acquiring and demonstrating the various leadership, technical, and/or general competencies expected of the Fellow or Senior Fellow as well as the elements and standards established for the duties assigned.

(2) Each Fellow and Senior Fellow must receive an annual performance evaluation (rating of record), in accordance with the agency's performance management program. The rating is derived from an evaluation of the Fellow's or Senior Fellow's success in completing developmental activities designed to prepare the Fellow or Senior Fellow to meet the developmental and performance expectations described in his or her performance plan (*i.e.*, elements and standards).

(3) If a Fellow or Senior Fellow does not meet expectations (set forth in the performance plan) with regard to his or her developmental progress or assignments, the agency may take appropriate corrective action. Fellows and Senior Fellows with previous competitive status are covered by parts 432 and 752 of this chapter.

(d) *Promotion.* (1) An agency must establish policies and criteria for the promotion of Fellows and Senior Fellows. A Fellow may be promoted up to the GS–13 level or its equivalent. A Senior Fellow may be promoted up to the GS–15 level or its equivalent.

(2) Time-in-grade requirements in part 300 of this chapter do not apply to the promotion of Fellows or Senior Fellows while they are appointed under § 213.3102(ii) or (jj) of this chapter.

(e) *Certification of completion.* (1)(i) Upon a Fellow's or Senior Fellow's completion of the Program, the appointing agency's ERB must evaluate each Fellow or Senior Fellow, as applicable, and determine whether it can certify in writing that he/she has met all of the requirements thereof, including the performance and developmental expectations set forth in the individual's performance plan and IDP, as established by this regulation, and, if so, make that certification or state that the OPM Director has approved a waiver of one or more of those requirements in a particular case under paragraph (f) of this section. Any certifications are forwarded to OPM.

(ii) In addition, for each Senior Fellow to be eligible for appointment to a position in the SES, or equivalent, without further competition, in the same manner and subject to the same QRB review as a graduate of an OPM-approved SES candidate development program, the ERB must certify that the Senior Fellow possesses the various leadership and management competencies required of successful SES candidates.

(iii) The agency must complete its evaluation and any certification, and notify the Fellow or Senior Fellow, no later than 30 calendar days prior to the expiration of the Fellow or Senior Fellow's appointment in the Program.

(2)(i) If the ERB does not certify a Fellow or Senior Fellow, the Fellow or Senior Fellow may request reconsideration of that determination by OPM. Such reconsideration must be requested in writing, with appropriate documentation and justification, within 15 calendar days of the date of the agency's certification decision.

(ii) The Fellow or Senior Fellow may continue in the Program pending the outcome of his/her request for reconsideration. The agency must continue to provide appropriate developmental activities during this period.

(iii) OPM's determination in this regard shall be final and not subject to further review or appeal.

§ 362.205 Waiver.

Under limited circumstances, the OPM Director may approve a written agency request for a waiver of any of the requirements enumerated in this section, upon a showing that the Fellow or Senior Fellow has participated in developmental activities prior to the Program that meet such requirements, in terms of both quantity and rigor. For example, successful completion of an appointment as a White House Fellow would normally satisfy the requirement that a Senior Fellow complete a long-term developmental assignment.

§ 362.206 Movement between departments or agencies.

(a) A Fellow or Senior Fellow may move to another agency at any time during his/her appointment in the Program. To move from one agency to another during the Program, the Fellow or Senior Fellow must separate from the current agency. The new employing agency must reappoint the participant under the appropriate Fellow or Senior Fellow appointment without a break in service.

(b) The Fellow or Senior Fellow does not begin a new period in the Program upon appointment by the new employing agency. Since there is no break in service, time served under the previous Program appointment will apply towards the completion of the Program with the new employing agency.

(c) The new appointing agency must notify OPM when a Fellow or Senior Fellow moves to that agency from another agency.

§ 362.207 Withdrawal and readmission.

(a) *Withdrawal.* (1) A Fellow or Senior Fellow may withdraw from the Program at any time by resigning from his/her appointment as a Fellow or Senior Fellow. Such withdrawal shall be treated as a resignation from the Federal service; however, any obligations established upon admission and appointment (for example, as a result of accepting a recruitment bonus under 5 CFR part 575, subpart A of this chapter) still apply.

(2) A Fellow or Senior Fellow who held a career or career-conditional appointment in an agency immediately before entering the Program, and who withdraws from the Program for reasons that are not related to misconduct, poor performance, or suitability, may, at the employing agency's discretion, be placed in a career or career-conditional position, as appropriate, in that agency. The employing agency's determination in this regard is not subject to appeal.

(3) An agency must notify OPM when a Fellow or Senior Fellow withdraws from the Program.

(b) *Readmission.* (1) If a Fellow or Senior Fellow withdraws from the Program for reasons that are related to misconduct, poor performance, or suitability, as determined by the agency, he/she shall not be readmitted to the Program at any time.

(2) If a Fellow or Senior Fellow withdraws from the Program for reasons that are not related to misconduct, poor performance, or suitability, he/she may petition the employing agency for readmission and reappointment to the Program; such a petition must be in writing and include appropriate justification. Upon consideration of that petition, the agency may, at its discretion, submit a written request seeking the OPM Director's approval to readmit and reappoint the individual to the Program; the individual's status in the Program upon readmission and reappointment shall be addressed as part of the agency's submission. OPM's final determination in this regard is not subject to appeal.

§ 362.208 Resignation, termination, reduction in force, and appeal rights.

(a) *Resignation.* A Fellow or Senior Fellow who resigns at any time prior to completion of the Program does not have reinstatement eligibility for competitive service positions based on his/her Fellow or Senior Fellow appointment.

(b) *Termination.* If an agency does not appoint a Fellow or Senior Fellow at the end of the Program, as provided in § 362.209, or extend the individual's initial appointment, the appointment expires when certification for program completion is denied or when the OPM Director denies the agency requested extension. The agency must provide written notification to OPM when a Fellow or Senior Fellow is terminated for this or any reason.

(c) *Reduction in force.* Fellows and Senior Fellows are in the excepted service Tenure Group II for purposes of § 351.502 of this chapter.

(d) *Appeal rights.* Fellows and Senior Fellows have appeal rights as provided for excepted service employees in parts 432 and 752 of this chapter.

§ 362.209 Placement upon completion.

(a) A Fellow or Senior Fellow must complete the Program within the time limits prescribed in § 362.204, including any extensions approved by OPM. At the conclusion of that time period, the Fellow or Senior Fellow must be appointed or separated, as provided below.

(b)(1) As provided in Executive Order 13318 and part 315 of this chapter, an agency must appoint a Fellow or Senior Fellow who has been certified as having successfully completed the Presidential Management Fellows Program and who is a United States citizen, without further competition, in a full-time, permanent position, in the competitive or excepted service, effective on the date that the Fellow or Senior Fellow is certified.

(2) Fellows and Senior Fellows who successfully complete the Program, who are United States citizens, and who are appointed by an excepted service agency may be appointed at a later date, without further competition and only one time, to a position in the competitive service for which they are qualified, if selected for such position.

(c) As provided for in part 317 of this chapter, an agency may appoint a Senior Fellow who is a United States citizen and who has been certified as having successfully completed the Presidential Management Fellows Program to a position in the SES, without further competition, but only one time, in the same manner and subject to the same QRB review as a graduate of an OPM-approved SES candidate development program.

PART 537—REPAYMENT OF STUDENT LOANS

11. The authority citation for part 537 continues to read as follows:

Authority: 5 U.S.C. 5379.

12. In § 537.104, revise paragraph (d) to read as follows:

§ 537.104 Employee eligibility.

* * * * *

(d) Employees serving on excepted appointments who are eligible for non-competitive conversion to a term, career, or career-conditional appointment (including, but not limited to, Career Interns, Presidential Management Fellows, or Senior Presidential Management Fellows).

PART 550—PAY ADMINISTRATION (GENERAL)

Subpart G—Severance Pay

13. The authority citation for subpart G continues to read as follows:

Authority: 5 U.S.C. 5595; E.O. 11257, 3 CFR 1964–1965 Comp., p. 357.

14. Revise paragraph (f)(6) of the definition of "nonqualifying appointment" in § 550.703 to read as follows:

§ 550.703 Definitions.

* * * * *

Nonqualifying appointment * * *

(f) * * *

(6) A Presidential Management Fellow or Senior Presidential Management Fellow appointment under part 362 of this chapter.

* * * * *

[FR Doc. 04–1589 Filed 1–21–04; 4:54 pm]

BILLING CODE 6325–38–P

DEPARTMENT OF AGRICULTURE

Office of Energy Policy and New Uses

7 CFR Part 2902

RIN 0503–AA26

Guidelines for Designating Biobased Products for Federal Procurement

AGENCY: Office of Energy Policy and New Uses, USDA.

ACTION: Notification of public meeting.

SUMMARY: The Office of Energy Policy and New Uses is announcing a public meeting to discuss the proposed rule entitled "Guidelines for Designating Biobased Products for Federal Procurement" published in the **Federal Register** of December 19, 2003 (68 FR 70730). This meeting is intended to provide stakeholders and interested parties with a briefing on the proposed rule and an opportunity to ask questions and make comments on the proposed rule.

DATES: The public meeting will be held on Thursday, January 29, 2004, from 9 a.m. to noon and 1 p.m. to 4:30 p.m., Eastern Standard Time. Registration will occur on site on Thursday, January 29, 2004, beginning at 8 a.m.

ADDRESSES: The meeting will be held in the Jefferson Auditorium of the U.S. Department of Agriculture, 1400 Independence Avenue, SW., Washington, DC 20250.

A written transcript of the meeting and submitted comments will be available for viewing at the USDA Office of Energy Policy and New Uses, Reporters Building, Room 361, 300 7th Street, SW., Washington, DC, 20024, between the hours of 8 a.m. and 4 p.m., Eastern Standard Time, Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Marvin Duncan, Office of Energy Policy and New Uses, U.S. Department of Agriculture, Reporters Building, Room 361, 300 7th Street SW., Washington, DC 20024, 202–401–0532, FAX: 202–401–0533, or e-mail; *fb4p@oce.usda.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

Section 9002 o9f the Farm security and Rural Investment Act (FSRIA) of 2002, 7 U.S.C. 8102, authorizes a program of preferred procurement of biobased products by Federal agencies. The proposed rule published in the **Federal Register** of December 19, 2003 (68 FR 70730) sets out the structure for implementing the program of preferred procurement of biobased products by Federal agencies.

The public meeting will provide an opportunity to brief stakeholders and interested parties on the proposed rule and allow them to ask questions about the proposed rule. The meeting also will provide an opportunity for stakeholders and others to offer public comments on the proposed rule.

The meeting will be video streamed in real time to enable stakeholders and other interested parties not attending the meeting in person to observe the discussion that takes place at the meeting. The video web streaming can be accessed by a hot link at the Current Issues Box on the Home Page of the Web site *http://www.biobased.oce.usda.gov.* The video web streaming can also be accessed on the USDA Home Page at *http://www.usda.gov.* During the meeting, members of the public can fax questions or public comments on the proposed rule to fax number (202) 720–9553. Alternatively, questions or public comments can also be e-mailed to the meeting at *fb4p@oce.usda.gov.* A transcript of the meeting, for the hearing impaired, will be prepared soon after the meeting is completed and posted on the Web site *www.biobased.oce.usda.gov.*

Agenda: The daylong meeting will have two sessions: The morning session will include a presentation on the major provisions of the proposed rule and a panel of government officials will respond to questions for clarification of the proposed rule.

In the afternoon session, public comments on the rule will be received. All public comments must include a printed text of the comment, identify the commenter, and provide contact information. Public comments may be faxed to the meeting site during the meeting using the fax number 202–720–9553. Alternatively, public comments can be e-mailed to the meeting at *fb4p@oce.usda.gov.*

To provide public comments on the proposed rule outside of the announced stakeholder meeting, please follow the instructions in the **ADDRESSES** section of the proposed rule (68 FR 70730, December 19, 20030.

There is no registration fee for this meeting. Because the meeting will be held in a Federal building, you should bring a photo ID and plan for adequate time to pass through security screening systems.

II. Electronic Access

You can access the proposed rule, as published in the **Federal Register**, on the Web site *http://www.biobased.oce.usda.gov.*

III. Transcripts

The video web streaming of the meeting will be available to be viewed on the Web site *www.biobased.oce.usda.gov* for approximately 40 days after the date of the stakeholder meeting. The transcript of the meeting and submitted comments will be available for public examination at the USDA Office of Energy Policy and New Uses, Reporters Building, Room 361, 300 7th Street, SW., Washington, DC, 20024, between the hours of 8 a.m. to 4 p.m. eastern standard time, Monday through Friday.

Dated: January 20, 2004.

Keith Collins,

Chief Economist, USDA.

[FR Doc. 04–1552 Filed 1–23–04; 8:45 am]

BILLING CODE 3410–GL–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NM–222–AD]

RIN 2120–AA64

Airworthiness Directives; Bombardier Model DHC–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 Airplanes on Which Engine Oil Coolers Have Been Installed Per LORI, Inc., Supplemental Type Certificate (STC) SA8937SW

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Bombardier Model DHC–8–101,

–102, –103, –106, –201, –202, –301, –311, and –315 airplanes on which engine oil coolers have been installed per LORI, Inc., STC SA8937SW. This proposal would require an inspection or a review of the airplane maintenance records to determine the part number and serial number of each engine oil cooler, and replacement of certain engine oil coolers with reworked engine oil coolers. This action is necessary to prevent oil leakage from the engine oil coolers, consequent in-flight engine shutdown due to low oil pressure, and reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by February 25, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2003–NM–222–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-nprmcomment@faa.gov*. Comments sent via fax or the Internet must contain "Docket No. 2003–NM–222–AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Honeywell Engines, Systems & Services, LORI, Inc., 6930 N. Lakewood, Tulsa, Oklahoma 74117. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Rotorcraft Directorate, 2601 Meacham Boulevard, Fort Worth, Texas.

FOR FURTHER INFORMATION CONTACT: Jim Rankin, Aerospace Engineer, Special Certification Office, ASW–190, 2601 Meacham Boulevard, Fort Worth, Texas 76193; telephone (817) 222–5138; fax (817) 222–5785.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003–NM–222–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2003–NM–222–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

The FAA has received reports from LORI, Inc., the manufacturer of certain engine oil coolers installed on Bombardier Model DHC–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 airplanes, that a batch of engine oil coolers with specific serial numbers have developed in-service cracking. Investigation revealed that the cracking is a result of deficient weld joints in the casting-to-core welds. Such cracking could result in oil leakage from the engine oil coolers, consequent in-flight engine shutdown due to low oil pressure, and reduced controllability of the airplane.

Explanation of Relevant Service Information

Honeywell has issued Service Bulletin 28E99–79–2036, dated September 23, 2002, which describes procedures for identifying the part number and serial number of the engine oil coolers and comparing the results against the effectivity information in paragraph 1.A. of the service bulletin, inspecting affected engine oil coolers for indication of oil leakage, and replacing discrepant engine oil coolers with reworked engine oil coolers. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

U.S. Type Certification of the Airplanes

These airplane models are manufactured in Canada and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, the proposed AD would require accomplishment of the actions specified in the service bulletin described previously, except as discussed below.

Special Flight Permits

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. As amended, part 39 provides for the FAA to add special requirements for operating an airplane to a repair facility to do the work required by an airworthiness directive. For the purposes of this proposed AD, we have determined that a special flight permit would be permitted, but with certain limitations.

Cost Impact

The FAA estimates that 19 airplanes of U.S. registry would be affected by this proposed AD. It would take approximately 1 work hour per airplane to accomplish the proposed inspection, at an average labor rate of $65 per work hour. Based on these figures, the cost impact of the proposed inspection on U.S. operators is estimated to be $1,235, or $65 per airplane.

Should an operator have to replace an engine oil cooler, it would take approximately 3 work hours at an

average labor rate of $65 per work hour. Required parts would be provided at no charge by the part manufacturer. Based on these figures, the cost impact of the proposed replacement on U.S. operators is estimated to be $195 per engine oil cooler.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this proposed AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

Bombardier, Inc. (Formerly de Havilland, Inc.): Docket 2003–NM–222–AD.

Applicability: Model DHC–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 airplanes on which engine oil coolers have been installed per LORI, Inc. Supplemental Type Certificate SA8937SW; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent oil leakage from the engine oil coolers, consequent in-flight engine shutdown due to low oil pressure, and reduced controllability of the airplane, accomplish the following:

Identification of Part Number and Serial Number and Corrective Actions

(a) Within 7 days after the effective date of this AD, do a detailed inspection or a review of airplane maintenance records to positively determine the part numbers (P/N) and serial numbers (S/N) of the engine oil coolers, in accordance with the Accomplishment Instructions of Honeywell Service Bulletin 28E99–79–2036, dated September 23, 2002.

Note 1: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If neither engine oil cooler has a S/N as listed in Table 1 of the service bulletin: No further action is required by this paragraph.

(2) If only one engine oil cooler has a S/N as listed in Table 1 of the service bulletin: Within 90 days after the effective date of this AD, remove the affected part and install a part that has been reworked per the service bulletin.

(3) If both engine oil coolers have S/Ns as listed in Table 1 of the service bulletin: Before further flight, remove at least one of the affected parts and install a part that has been reworked per the service bulletin. If only one affected part is replaced with a part that has been reworked, within 90 days after the effective date of this AD, remove the remaining affected part and install a part that has been reworked per the service bulletin.

Parts Installation

(b) As of the effective date of this AD, no person shall install an engine oil cooler having a S/N as listed in Table 1 of Honeywell Service Bulletin 28E99–79–2036, dated September 23, 2002.

Special Flight Permit

(c) Special flight permits with a limitation may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished. The special flight permits would have a limitation of one affected engine oil cooler per airplane.

Alternative Methods of Compliance

(d) In accordance with 14 CFR 39.19, the Manager, Special Certification Office, Rotorcraft Directorate, FAA, is authorized to approve alternative methods of compliance for this AD.

Issued in Renton, Washington, on January 16, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04–1562 Filed 1–23–04; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002–NM–163–AD]

RIN 2120–AA64

Airworthiness Directives; Airbus Model A319, A320, and A321 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the supersedure of an existing airworthiness directive (AD), applicable to all Airbus Model A319, A320, and A321 series airplanes. That AD currently requires identification of the part number and serial number of the parking brake operated valve (PBOV); and, if necessary, inspection of the PBOV, including a functional check of the PBOV, and follow-on and corrective actions. That AD also provides for an optional terminating action for the requirements of that AD. This new action would mandate the optional terminating action, which would terminate the inspection requirements of the previous AD. The actions specified by the proposed AD are intended to prevent leakage of hydraulic fluid from the PBOV, which could cause the loss of the parking brake accumulator, and render the alternate braking system and the parking/emergency braking system inoperative, as well as the loss of function of the yellow hydraulic system (which provides all or part of the hydraulics for

the elevator, rudder, aileron, flaps, stabilizer, yaw damper, pitch and yaw feel systems and autopilot, and certain spoilers).

DATES: Comments must be received by February 25, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–163–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-nprmcomment@faa.gov*. Comments sent via fax or the Internet must contain "Docket No. 2002–NM–163–AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2125; fax (425) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002–NM–163–AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–163–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

On April 12, 2002, the FAA issued AD 2002–08–13, amendment 39–12721 (67 FR 19652, April 23, 2002); applicable to all Airbus Model A319, A320, and A321 series airplanes; to require identification of the part number and serial number of the parking brake operated valve (PBOV); and, if necessary, inspection of the PBOV, including a functional check of the PBOV, and follow-on and corrective actions. AD 2002–08–13 also provides for optional terminating action for the requirements of that AD. That action was prompted by reports of PBOV leakage of hydraulic fluid on certain Airbus Model A320 series airplanes. The requirements of that AD are intended to prevent loss of the yellow hydraulic system, which provides all or part of the hydraulics for the elevator, rudder, aileron, flaps, stabilizer, yaw damper, pitch and yaw feel systems and autopilot, and certain spoilers.

In the preamble to AD 2002–08–13, the FAA indicated that the actions required by that AD were considered "interim action" and that further rulemaking action was being considered. The FAA now has determined that further rulemaking is indeed necessary, and this proposed AD follows from that determination.

Explanation of Relevant Service Information

Airbus has issued Service Bulletin A320–32A1233, Revision 01, dated October 1, 2001, which describes procedures for identifying the part number and serial number of the PBOV. (The existing AD refers to the original issue of that service bulletin, dated August 16, 2001, as the acceptable source of service information for the required actions.) For a PBOV having a certain part and serial number, the service bulletin describes procedures for an inspection to detect leakage or spray of hydraulic fluid from the vent hole and to detect leakage or seepage of any of the three hydraulic connections. The inspection includes a test (functional check) of the PBOV. The service bulletin recommends repetitive tests if the PBOV passes the test; and repair or replacement if the PBOV fails, with repetitive tests if necessary. For certain conditions, when a replacement spare is unavailable, the service bulletin recommends contacting the manufacturer for further action. This service bulletin also describes procedures for the repair or replacement of all affected PBOVs. The service bulletin refers to Messier-Bugatti Service Bulletin A25315–32–3215 as an additional source of service information for the PBOV repair.

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, classified this service bulletin as mandatory and issued French airworthiness directive 2001–384(B) R1, dated March 20, 2002, to ensure the continued airworthiness of these airplanes in France.

FAA's Conclusions

These airplane models are manufactured in France and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above. We have examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same

type design registered in the United States, this proposed AD would supersede AD 2002–08–13 to continue to require identification of the part number and serial number of the PBOV, an inspection to detect leakage or spray of hydraulic fluid from the vent hole, and to detect leakage or seepage of any of the three hydraulic connections, if necessary; repetitive tests if the PBOV passes the test; and repair or replacement if the PBOV fails, with repetitive tests if necessary. This proposed AD would require repair or replacement of all affected PBOV valves, which would constitute terminating action for the inspection requirements of the AD. The actions would be required to be accomplished in accordance with the service bulletin described previously, except as discussed below.

Differences Between Proposed Rule and Referenced Service Bulletin

Operators should note that although the service bulletin specifies to submit certain information to the manufacturer, this proposed AD does not include such a requirement.

Operators should also note that, although the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions. this AD requires those corrective actions to be accomplished in accordance with a method approved either by the FAA or the DGAC (or its delegated agent). In light of the type of action required to address the identified unsafe condition, and in consonance with existing bilateral airworthiness agreements, the FAA has determined that, for this AD, corrective action approved by either the FAA or the DGAC is acceptable for compliance.

Changes to 14 CFR Part 39/Effect on the Proposed AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. Because we have now included this material in part 39, we no longer need to include it in each individual AD; therefore, paragraph (f) and Note 1 of AD 2002–08–13 are not included in this proposed AD. However, this proposed AD identifies the office authorized to approve alternative methods of compliance.

Cost Impact

There are approximately 333 airplanes of U.S. registry that would be affected by this proposed AD. The new requirements of this AD add no additional economic burden. The current costs for this AD are as follows:

The actions that are currently required by AD 2002–08–13, and that are also required by the proposed AD, take approximately 2 work hours per airplane to accomplish, at an average labor rate of $65 per work hour. Based on these figures, the cost impact of the currently required actions on U.S. operators is estimated to be $43,290 or $130 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the current or proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39–12721 (67 FR 19652, April 23, 2002), and by adding a new airworthiness directive (AD), to read as follows:

Airbus: Docket 2002–NM–163–AD. Supersedes AD 2002–08–13, Amendment 39–12721.

Applicability: All Model A319, A320, and A321 series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent leakage of hydraulic fluid from the parking brake operated valve (PBOV), which could cause the loss of the parking brake accumulator, and render the alternate braking system and the parking/emergency braking system inoperative, as well as causing the loss of function of the yellow hydraulic system (which provides all or part of the hydraulics for the elevator, rudder, aileron, flaps, stabilizer, yaw damper, pitch and yaw feel systems and autopilot, and certain spoilers); accomplish the following:

Restatement of Requirements of AD 2002–08–13

Inspection and Functional Check

(a) Within 7 days after May 8, 2002 (the effective date of AD 2002–08–13, amendment 39–12721), identify the part number and serial number of the PBOV to determine whether the PBOV is an affected part, as identified by Airbus Service Bulletin A320–32A1233, dated August 16, 2001; or Revision 01, dated October 1, 2001.

(1) If the PBOV is NOT an affected part: No further action is required by this paragraph.

(2) If the PBOV is an affected part: Except as required by paragraph (b) of this AD, prior to further flight, test the PBOV in accordance with the service bulletin; and thereafter perform follow-on and corrective actions (including repetitive tests and repair of the PBOV or replacement with a serviceable PBOV) at the time specified by and in accordance with the service bulletin, as applicable.

(b) If Airbus Service Bulletin A320–32A1233, dated August 16, 2001; or Revision 01, dated October 1, 2001; specifies to contact the manufacturer for corrective action: Prior to further flight, perform the corrective action in accordance with a method approved by either the Manager, International Branch, ANM–116, FAA, Transport Airplane Directorate, or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent).

Optional Terminating Action

(c) Replacement of the PBOV with a new, non-affected PBOV terminates the requirements of this AD. Affected PBOVs are identified in Airbus Service Bulletin A320–32A1233, dated August 16, 2001; or Revision 01, dated October 1, 2001.

Parts Installation

(d) As of May 8, 2002 (the effective date of AD 2002–08–13), no person may install an affected PBOV on any airplane, unless that PBOV is in compliance with all applicable requirements of this AD. Affected PBOVs are identified by Airbus Service Bulletin A320–32A1233, dated August 16, 2001; or Revision 01, dated October 1, 2001.

New Requirements of This AD

Repair or Replace

(e) Within 9 months after the effective date of this AD, repair or replace all the PBOVs identified during the inspection required by paragraph (a) of this AD as having part number A25315–1, and having a serial number between H2372 and H2989 inclusive, that are not identified with the letter "V" or "VF+E." Repair or replace the PBOVs in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320–32A1233, Revision 01, dated October 1, 2001.

Note 1: The service bulletin refers to Messier-Bugatti Service Bulletin A25315–32–3215 as an additional source of service information for the PBOV repair or replacement.

Terminating Action

(f) Repair or replacement of the PBOV per paragraph (e) of this AD terminates the requirements of this AD.

Actions Done per Previous Issue of Service Bulletin

(g) Repairs or replacements done before the effective date of this AD in accordance with Airbus Service Bulletin A320–32A1233, dated August 16, 2001, are considered acceptable for compliance with the applicable actions specified in this AD.

Alternative Methods of Compliance

(h)(1) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM–116, is authorized to approve alternative methods of compliance for this AD.

(2) Alternative methods of compliance, approved previously per AD 2002–08–13, amendment 39–12721, are approved as alternative methods of compliance with this AD.

Note 2: The subject of this AD is addressed in French airworthiness directive 2001–384(B) R1, dated March 20, 2002.

Issued in Renton, Washington, on January 14, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04–1563 Filed 1–23–04; 8:45 am]

BILLING CODE 4910–13–P

Notices

Federal Register
Vol. 69, No. 16
Monday, January 26, 2004

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Commodity Credit Corporation

Notice of Request for Extension and Revision of a Currently Approved information Collection

AGENCY: Commodity Credit Corporation, USDA.

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Commodity Credit Corporation's (CCC) intention to request an extension for a currently approved information collection in support of the CCC Facility Guarantee Program (FGP) based on re-estimates.

DATES: Comments on this notice must be received by March 26, 2004, to be assured of consideration.

FOR FURTHER INFORMATION CONTACT: Contact William S. Hawkins, Director, Program Administration Division, Foreign Agricultural Service, U.S. Department of Agriculture, AgStop 1031, Washington, DC 20250–1031, telephone (202) 720–3241 or e-mail at *william.hawkins@fas.usda.gov*.

SUPPLEMENTARY INFORMATION:

Title: CCC Facility Guarantee Program.

OMB Number: 0551–0032.

Expiration Date of Approval: April 30, 2004.

Type of Request: Extension of and revision to a currently approved information collection.

Abstract: The primary objective of the FGP is to expand U.S. agricultural exports by improving agricultural infrastructure in importing countries. The FGP makes available export credit guarantees to encourage U.S. private sector financing of foreign purchases of U.S. goods and services on credit terms. The CCC currently offers the FGP for exports to at least 9 countries and 6 country regions. The FGP information collection is similar to those for the Export Credit Guarantee Program (GSM–102) and the Intermediate Export Credit Guarantee Program (GSM–103) (OMB control number 0551–0004). The information collection for the FGP differs primarily as follows:

(1) The applicant, in order to receive a payment guarantee, provides information evidencing that the exported goods and services used to develop improved infrastructure will primarily benefit exports of U.S. agricultural commodities and products; and

(2) The applicant is required to certify that the value of non-U.S. components of goods and services is less than 50 percent of the contract value covered under the payment guarantee.

In addition, each exporter and exporter's assignee (U.S. financial institution) must maintain records on all information submitted to CCC and in connection with sales made under the FGP. The information collected is used by CCC to manage, plan, evaluate and account for government resources. The reports and records are required to ensure the proper and judicious use of public funds.

Estimate of Burden: The public reporting burden for these collections is estimated to average 12 hours per response.

Respondents: Exporters of U.S. agricultural commodities, banks or other financial institutions, producer associations, export trade associations, and U.S. government agencies.

Estimated Number of Respondents: 5 per annum.

Estimated Number of Responses per Respondent: 6 per annum.

Estimated Total Annual Burden of Respondents: 360 hours.

Copies of this information collection can be obtained from Kimberly Chisley, the Agency Information Collection Coordinator, at (202) 720–2568 or e-mail at *Kimberly.Chisley@usda.gov*.

Requests for Comments: Send comments regarding (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments may be sent to William S. Hawkins, Director, Program Administration Division, FAS, USDA, Stop 1031, Washington, DC 20250, or *william.hawkins@fas.usda.gov*, or to the Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Washington, DC 20503. Persons with disabilities who require an alternative means for communication of information (Braille, large print, audiotape, etc.) should contact USDA's Target Center at (202) 720–2600 (voice and TDD).

All responses to this notice will be summarized and included in the request for OMB approval.

All comments will also become a matter of public record.

Signed at Washington, DC on January 15, 2004.

A. Ellen Terpstra,

Administrator, Foreign Agricultural Service.

[FR Doc. 04–1538 Filed 1–23–04; 8:45 am]

BILLING CODE 3410–10–M

DEPARTMENT OF AGRICULTURE

Food and Nutrition Service

Agency Information Collection Activities: Proposed Collection; Comment Request—Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Miscellaneous Provisions

AGENCY: Food and Nutrition Service, USDA.

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice re-opens the comment period for the general public and other public agencies to provide input on a proposed information collection as set forth in the Proposed Rulemaking entitled "WIC: Miscellaneous Provisions" that was published in the **Federal Register** on December 2, 2002 (67 FR 71774). The comment period is being re-opened because the analysis set forth in the Proposed Rulemaking of its reporting

and recordkeeping burden did not reference the overall WIC Program reporting and record-keeping requirements designated by the Office and Management and Budget as Information Collection Burden #0584–0043. Also, this analysis omitted one of the proposed provisions that impacted on the burden and misidentified another such provision. Therefore, the Department is offering the public a second opportunity to consider and comment on the proposed changes in the information collection burden based on the provisions of the Proposed Rule.

DATES: Written comments must be received on or before March 26, 2004.

ADDRESSES: Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on those who are to respond, including use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments may be sent to Debra R. Whitford, Chief, Policy and Program Development Branch, Supplemental Food Programs Division, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Room 522, Alexandria, Virginia 22302. Comments may also be submitted via fax to the attention of Debra R. Whitford at (703) 305–2196 or via e-mail to *wichq-web@fns.usda.gov*. In all cases, including when comments are sent via email, please label your comments as "Proposed Collection of Information: WIC Miscellaneous Provisions."

All written comments will be open for public inspection at the office of the Food and Nutrition Service during regular business hours (8:30 a.m. to 5 p.m. Monday through Friday) at 3101 Park Center Drive, Room 522, Alexandria, Virginia 22302.

All responses to this notice will be summarized and included in the request for OMB approval. All comments will be a matter of public record.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of this information should be directed to Debra R. Whitford at (703) 305–2746.

SUPPLEMENTARY INFORMATION:

Title: WIC: Miscellaneous Provisions (Proposed Rule).

OMB Number: 0584–0043.

Form Number: N/A.

Expiration Date: January 31, 2004.

Type of Request: Revision of a currently approved collection.

Abstract: The new reporting burden reflected in this action is associated with additional elements that are proposed to become part of the annual State Plan of Operations under the Proposed Rulemaking entitled "WIC: Miscellaneous Provisions" that was published in the **Federal Register** on December 2, 2002 (67 FR 71774). The comment period for the entire reporting burden associated with that Proposed Rule, including both the burden which was cited in the Rule and the burden which had been inadvertently omitted from the Rule, is being reopened.

Respondents: State agencies administering the WIC Program through a Federal grant of funds.

Estimated Number of Respondents: See chart below.

Number of Responses per Respondent: See chart below.

Estimated Time per Response: See chart below.

Estimated Total Annual Burden on Respondents: See chart below.

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ESTIMATED ANNUAL REPORTING BURDEN				
Section of Regulations	Annual Number of Respondents	Annual Frequency	Average Burden per Response	Annual Burden Hours
Reporting Burden as Reflected in the Proposed Rule:				
246.4(a)(11)(i)(E)	88	1	1.00	88.00
246.4(a)(11)(i)	88	1	.50	44.00
246.4(a)(21)	88	1	1.00	88.00
246.4(a)(24)	88	1	1.00	88.00
Total Reporting Burden Reflected in the Proposed Rule				308.00
Reporting Burden Added by This Notice 246.4(a)(26)	88	1	1.00	88.00
Total Adjustments*				82,365.00
Total Current WIC Reporting and Recordkeeping Burden Hours**				2,734,330.00
Grand Total Proposed WIC Reporting and Recordkeeping Burden Hours***				2,817,091.00

*This total reflects adjustments to the annual reporting and recordkeeping burden hours due to increases in WIC participation and the number of local agencies.

**This is the total reporting and recordkeeping burden currently approved by OMB for information collection #0584-0043.

***This grand total combines the currently approved burden hours for OMB #0584-0043, the proposed burden hours associated with this action, and the adjustments.

BILLING CODE 3410-30-C

Proposed Reporting Requirements: Section 246.4(a)(11)(i)(E) will require a description in the State Plan of the State agency's alternate language for advising applicants, parents or caretakers of their rights and responsibilities when applying for program benefits, if the State agency chooses to use language other than the statements set forth in § 246.7(j)(2) of the WIC regulations. The use of alternate language by State agencies is optional under the Proposed Rulemaking. —88 hours

Section 246.4(a)(11)(i) will require a description in the State Plan of the State agency's policies for requiring proof of pregnancy, if the State agency chooses to require such proof. Requiring proof of pregnancy is an option for State agencies under the Proposed Rulemaking. The Proposed Rulemaking set forth this option in § 246.7(c)(2)(ii), and the preamble stated that a State Plan provision would be needed if the State agency wanted to use this option, but this provision was inadvertently omitted from the State Plan requirements, § 246.4(a)(11)(i). —44 hours

Section 246.4(a)(21) was inadvertently misidentified in the chart entitled "Estimated Annual Reporting Burden" in the Proposed Rulemaking as § 246.4(a)(18). Section 246.4(a)(21) requires a description in the State Plan of the State agency's policy for approving the expenditure of WIC Program nutrition services and administration funds (NSA) for transporting WIC participants to and from WIC clinics, if the State agency chooses to expend NSA funds for such transportation costs. This provision is optional for State agencies in the Proposed Rulemaking. —88 hours

Section 246.4(a)(24) requires a listing in the State Plan of the organizations with whom the State agency will share confidential participant information if the State agency chooses to enter into information-sharing agreements with certain organizations. This provision is optional for State agencies under the Proposed Rulemaking. —88 hours

The Proposed Rulemaking inadvertently omitted § 246.4(a)(26) from the chart entitled "Estimated Annual Reporting Burden" in the Proposed Rulemaking. This section requires a description in the State Plan of the State agency's plans for collecting and maintaining information on cases of participant and employee fraud and abuse. —88 hours

Dated: January 16, 2004.

Roberto Salazar,

Administrator, Food and Nutrition Service.

[FR Doc. 04–1511 Filed 1–23–04; 8:45 am]

BILLING CODE 3410–30–P

DEPARTMENT OF AGRICULTURE

Forest Service

Olympic Provincial Advisory Committee

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting.

SUMMARY: The Olympic Province Advisory Committee (OPAC) will meet on Friday, February 20, 2004. The meeting will be held at the Sequim Community Center, 190 West Cedar Street, Sequim, Washington. The meeting will begin at 9:30 a.m. and end at approximately 3:30 p.m. Agenda topics are: Current status of key Forest issues; Whitebark Pine Survey; Tribal Use of the Forest and Treaty Rights; 2004–2005 Timber Sale Program; Stewardship Contracting; Draft Findings of 2003 Social Monitoring; Open forum; and Public comments.

All Olympic Province Advisory Committee Meetings are open to the public. Interested citizens are encouraged to attend.

FOR FURTHER INFORMATION CONTACT: Direct questions regarding this meeting to Ken Eldredge, Province Liaison, USDA, Olympic National Forest Headquarters, 1835 Black Lake Blvd., Olympia, WA 98512–5623, (360) 956–2323 or Dale Hom, Forest Supervisor, at (360) 956–2301.

Dated: January 20, 2004.

Dale Hom,

Forest Supervisor, Olympic National Forest.

[FR Doc. 04–1555 Filed 1–23–04; 8:45 am]

BILLING CODE 3410–11–M

DEPARTMENT OF AGRICULTURE

Forest Service

Ravalli County Resource Advisory Committee

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting.

SUMMARY: The Ravalli County Resource Advisory Committee will be meeting to discuss project development for 2004 and project updates for 2003. Agenda topics will include electing a chairperson for 2004, public outreach methods, and a public forum (question and answer session). The meeting is being held pursuant to the authorities in the Federal Advisory Committee Act (Public Law 92–463) and under the Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106–393). The meeting is open to the public.

DATES: The meeting will be held on January 27, 2004, 6:30 p.m.

ADDRESSES: The meeting will be held at the Ravalli County Administration Building, 215 S. 4th Street, Hamilton, Montana. Send written comments to Jeanne Higgins, District Ranger, Stevensville Ranger District, 88 Main Street, Stevensville, MT 59870, by facsimile (406) 777–7423, or electronically to *jmhiggins@fs.fed.us.*

FOR FURTHER INFORMATION CONTACT: Jeanne Higgins, Stevensville District Ranger and Designated Federal Officer, Phone: (406) 777–5461.

Dated: January 8, 2004.

David T. Bull,

Forest Supervisor.

[FR Doc. 04–1542 Filed 1–23–04; 8:45 am]

BILLING CODE 3410–11–M

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Indiana Advisory Committee

Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights, that the Indiana Advisory Committee to the Commission will convene a meeting from 9 a.m. until 5 p.m. on Thursday, February 26, 2004, at the Julia Carson Center, 300 East Fall Creek Parkway, Indianapolis, Indiana 46205. The purpose of the meeting is to discuss civil rights issues of interest and plan future activities.

Persons desiring additional information should contact Hollis Hughes, Committee Chairperson at 574–232–8201 or Constance M. Davis, Director of the Midwestern Regional Office at 312–353–8311, (TDD 312–353–8362). Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Regional Office at least ten (10) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC, January 9, 2004.

Ivy L. Davis,

Chief, Regional Programs Coordination Unit.

[FR Doc. 04–1565 Filed 1–23–04; 8:45 am]

BILLING CODE 6335–01–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Utah Advisory Committee

Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights, that a planning meeting with briefing of the Utah State Advisory Committee will convene at 5:30 p.m. (MDT) and adjourn at 8:30 p.m. (MDT), Thursday, February 5, 2004, at the Horizonte School, 1234 S. Main Street, Salt Lake City, UT 84101. The purpose of the meeting with briefing is to plan future activities including the consideration of a regional project concerning discrimination against Native Americans in reservation border towns and to discuss other civil rights issues in the state.

Persons desiring additional information, or planning a presentation to the Committee, should contact John Dulles, Director of the Rocky Mountain Regional Office, (303) 866–1040 (TDD 303–866–1049). Hearing impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Regional Office at least ten (10) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC, January 13, 2004.

Ivy L. Davis,

Chief, Regional Programs Coordination Unit.

[FR Doc. 04–1566 Filed 1–23–04; 8:45 am]

BILLING CODE 6335–01–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–830]

Coumarin From the People's Republic of China; Preliminary Results of Changed Circumstances Review and Intent To Revoke the Antidumping Duty Order

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the Department) is conducting a changed circumstances review of the antidumping duty order on coumarin from the People's Republic of China (PRC). The preliminary results of this review indicate that Rhodia, Inc., the successor-in-interest to Rhone-Poulenc and the sole U.S. producer of coumarin, ceased production during 2002. Consequently, we have preliminarily determined to revoke the antidumping duty order on coumarin from the Peoples Republic of China effective February 1, 2003, the earliest date for which there are entries which have not been subject to an administrative review.

EFFECTIVE DATE: January 26, 2004.

FOR FURTHER INFORMATION CONTACT: Scott Lindsay or Dana Mermelstein, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230, at (202) 482–0780 or (202) 482–1391, respectively.

SUPPLEMENTARY INFORMATION:

Background

On February 9, 1995, the Department published in the **Federal Register** the antidumping duty order on coumarin from the PRC. *See Notice of Antidumping Order: Coumarin From the People's Republic of China*, 60 FR 7751. On June 23, 2003, Berjé Incorporated (Berjé), a U.S. importer of subject merchandise and an interested party in this proceeding, requested that the Department conduct a changed circumstances review for the purpose of revoking the antidumping duty order on coumarin from the PRC. According to Berjé, Rhone-Poulenc Specialty Chemicals Company (Rhone-Poulenc), the petitioner, was the only domestic coumarin producer at the time of the original investigation. Berjé also indicated that since the original investigation, Rhone-Poulenc has changed its company name and now does business under the name Rhodia, Inc. (Rhodia) and that Rhodia remained the only producer of coumarin in the United States. Berjé informed the Department that Rhodia, in a press release dated November 28, 2001, announced its intent to cease production of coumarin in 2002. Berjé provided further information obtained from Rhodia indicating that Rhodia no longer produces coumarin in the United States.

Based on Berjé's June 23, 2003 submission, the Department initiated this changed circumstances review on July 31, 2003. *See Notice of Initiation of Changed Circumstances Review and Consideration of Revocation of the Antidumping Duty Order: Coumarin From the Peoples's Republic of China*, 68 FR 46579. On August 26, 2003, Rhodia submitted comments on the initiation of this changed circumstances review. Rhodia stated that while it had produced and distributed coumarin in the United States during the most recent administrative review period, February 1, 2002 through January 31, 2003, it no longer produces coumarin in the United States. Rhodia further stated that it did not oppose the revocation of the order on a prospective basis.

Also on August 26, 2003, H. Reynaud & Fils USA Co. (HRF), an importer of the subject merchandise, submitted comments regarding the effective date of the revocation of the order. HRF claimed to have confirmed via a telephone call to Rhodia that the factory had actually shut down in May 2002. HRF then noted that, since it takes approximately 2 months to actually close down a factory, Rhodia probably ceased production in March 2002. Therefore, HRF requested that the revocation of the order be made retroactive to March 2002. On September 5, 2003, Berjé submitted a response to Rhodia's August 26, 2003 comments. Berjé argued that the effective date of the revocation of the order should be July 1, 2002. Berjé reasoned that because Rhodia had not requested an administrative review during the most recent anniversary month, February 2003, the most recent review period before Rhodia ceased production was the administrative review that would have covered February 2001 through January 2002. In addition, Berjé stated that Rhodia was vague about when its production actually ceased, referring only to mid-2002. As such, Berjé stated that mid-2002 should be considered June 30, 2002, and, as a result, the effective date of the revocation of the order should be July 1, 2002, the day after Rhodia stopped production. No other parties commented on our *Notice of Initiation of Changed Circumstances Review and Consideration of Revocation of the Antidumping Duty Order: Coumarin From the Peoples's Republic of China*, 68 FR 46579.

Scope of the Antidumping Duty Order

The product covered by this order is coumarin. Coumarin is an aroma chemical with the chemical formula ($C_9H_6O_2$) that is also known by other names, including 2H–1-benzopyran-2-one, 1, 2-benzopyrone, cis-o-coumaric acid lactone, coumarinic anhydride, 2–Oxo-1, 2-benzopyran, 5, 6-benzo-alpha-pyrone, ortho-hydroxyc innamic acid lactone, cis-ortho-coumaric acid anhydride, and tonka bean camphor.

All forms and variations of coumarin are included within the scope of the order, such as coumarin in crystal, flake, or powder form, and "crude" or unrefined coumarin (*i.e.*, prior to purification or crystallization). Excluded from the scope of this order

are ethylcoumarins ($C_{11}H_{10}O_2$) and methylcoumarins ($C_{10}H_8O_2$). Coumarin is classifiable under subheading 2932.21.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

Preliminary Results of Review and Intent To Revoke the Antidumping Duty Order

The Department preliminarily determines that the producer accounting for all of the domestic like product to which the order pertains has ceased U.S. production and has expressed a lack of interest in the relief provided by this order, and thus, sufficient changed circumstances exist to warrant revocation of the order. The Department also preliminarily determines that the effective date of revocation for this order should be February 1, 2003, the earliest date for which entries of coumarin have not been subject to an administrative review. Therefore, the Department preliminarily determines that it shall revoke, effective February 1, 2003, the antidumping duty order on coumarin from the PRC in whole, pursuant to sections 751(b) and (d) and 782(h) of the Act, as well as 19 CFR 351.216 and 351.222(g).

Pursuant to section 782(h)(2) of the Act, the Department may revoke an antidumping or countervailing duty order based on a review under section 751(b) of the Act (*i.e.*, a changed circumstances review). Section 751(b)(1) of the Act requires a changed circumstances review to be conducted upon receipt of a request which shows changed circumstances sufficient to warrant a review. Section 351.222(g) of the regulations provides that the Department will conduct a changed circumstances review under § 351.216 of the regulations, and may revoke an order (in whole or in part), if it determines that producers accounting for substantially all of the production of the domestic like product to which the order (or the part of the order to be revoked) pertains have expressed a lack of interest in the relief provided by the order, in whole or in part, or if other changed circumstances exist sufficient to warrant revocation. Furthermore, it is the Department's practice to revoke an antidumping duty order so that the effective date of revocation covers entries that have not been subject to a completed administrative review. *See e.g., Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Germany: Notice of Final Results of Changed Circumstances Review, Revocation of the Antidumping Duty Order, and Rescission of Administrative Reviews*, 67 FR 19551.

Public Comment

Pursuant to 19 CFR 351.309, interested parties may submit written comments in response to these preliminary results. Case briefs are currently scheduled for submission within 30 days after the date of publication of this notice, and rebuttal briefs, limited to arguments raised in case briefs, must be submitted no later than five (5) days after the time limit for filing case briefs. Parties who submit briefs in this proceeding are requested to submit with the briefs: (1) A statement of the issue, and (2) a brief summary of the argument. Case and rebuttal briefs must be served on interested parties in accordance with 19 CFR 351.303(f). Also, pursuant to 19 CFR 351.310, within 30 days of the date of publication of this notice, interested parties may request a public hearing on arguments to be raised in the case and rebuttal briefs. Unless the Secretary specifies otherwise, the hearing, if requested, will be held two days after the deadline for submission of rebuttal briefs. The Department plans to issue the final results of this administrative review, including its analysis of issues raised in any case or rebuttal brief or at a hearing, not later than April 26, 2004.

Instructions to U.S. Customs and Border Protection

If our final results do not differ from our preliminary results with respect to revocation, the Department, in accordance with 19 CFR 351.222, will instruct the U.S. Customs and Border Protection (CBP) to terminate the suspension of liquidation and to liquidate, without regard to antidumping duties, all unliquidated entries of coumarin from the PRC, entered, or withdrawn from warehouse, for consumption on or after February 1, 2003. The Department will further instruct CBP to refund with interest any estimated duties collected with respect to unliquidated entries of coumarin from the PRC entered, or withdrawn from warehouse, for consumption on or after February 1, 2003, in accordance with section 778 of the Act.

This administrative review and notice are in accordance with sections 751(a)(1) and 771 (i)(1) of the Tariff Act.

Dated: January 16, 2004.

James J. Jochum,

Assistant Secretary for Import Administration.

[FR Doc. 04–1577 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–886]

Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Polyethylene Retail Carrier Bags from the People's Republic of China

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: We preliminarily determine that polyethylene retail carrier bags from the People's Republic of China are being, or are likely to be, sold in the United States at less than fair value, as provided in section 733 of the Tariff Act of 1930, as amended. Interested parties are invited to comment on this preliminary determination. We will make our final determination not later than 135 days after the date of publication of this preliminary determination. The estimated margins of sales at less than fair value are shown in the "Suspension of Liquidation" section of this notice.

EFFECTIVE DATE: January 26, 2004.

FOR FURTHER INFORMATION CONTACT: Hermes Pinilla (Nantong), Edythe Artman (Senetex), Kristin Case (United Wah), Jeff Frank (Ming Pak), Janis Kalnins (Zhongshan), Jennifer Moats (Hang Lung), Thomas Schauer (Rally Plastics), or Dmitry Vladimirov (Glopack), Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230; telephone: (202) 482–4733.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

The Department of Commerce (the Department) has conducted this antidumping investigation in accordance with section 733 of the Tariff Act of 1930, as amended (the Act). We preliminarily determine that polyethylene retail carrier bags (PRCBs) from the People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value (LTFV), as provided in section 733 of the Act. The estimated margins of sales at LTFV are shown in the

"Suspension of Liquidation" section of this notice.

Case History

We initiated this investigation on July 10, 2003. See *Initiation of Antidumping Duty Investigations: Polyethylene Retail Carrier Bags from The People's Republic of China, Malaysia, and Thailand*, 68 FR 42002 (July 16, 2003) (*Initiation Notice*). Since the initiation of this investigation the following events have occurred.

On July 14, 2003, we issued a letter to interested parties in this investigation providing an opportunity to comment on the characteristics that we should use in identifying the different models that the respondents sold in the United States. The petitioners and respondents in the concurrent Thailand investigation submitted comments on July 28, 2003. No other party submitted comments. After reviewing the parties' comments, we adopted the characteristics discussed in the "Fair Value Comparisons" section below in order to determine unique models of the subject merchandise.

On July 14, 2003, we sent a partial Section A questionnaire to all of the producers/exporters named in the petition and to the exporters who comprise the top 80 percent of exporters in terms of quantity imported (in thousands of units) of the subject merchandise according to data from U.S. Customs and Border Protection (CBP). We requested information on the quantity and value of merchandise sold by these exporters in order to identify potential respondents in the investigation. We received responses from 39 firms which reported exports of subject merchandise during the period of investigation (POI). In addition, a number of firms indicated that they did not export subject merchandise to the United States during the POI. We did not receive responses from a number of firms in the PRC although the record indicates that these companies received our July 14, 2003, questionnaire. On August 1, 2003, we sent a letter to these firms to reiterate our request for a response to the July 14, 2003, questionnaire. We received no responses from these firms.

On August 4, 2003, the U.S. International Trade Commission (ITC) issued its affirmative preliminary determination that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of the subject merchandise from the PRC, Malaysia, and Thailand. See *Polyethylene Retail Carrier Bags From China, Malaysia, and Thailand*, 68 FR 47609 (August 11, 2003).

On August 14, 2003, the Department selected the following nine mandatory respondents: Hang Lung Plastic Manufactory Limited (Hang Lung); Dongguan Huang Jiang United Wah Plastic Bag Factory (United Wah); Nantong Huasheng Plastic Products Company, Limited (Nantong); Rally Plastics Company, Limited (Rally Plastics); Senetex Trading Limited (Senetex); Shanghai Glopack Packing Company Limited and Sea Lake Polyethylene Enterprise Limited (collectively Glopack); Tai Chiuan Plastic Products Company, Limited (Tai Chiuan); Xiamen Ming Pak Plastics Company, Limited (Ming Pak); Zhongshan Dongfeng Hung Wai Plastic Bag Manufactory (Zhongshan). See Memorandum from Laurie Parkhill to Jeff May regarding selection of respondents dated August 14, 2003.

On August 14, 2003, the Department issued its full antidumping questionnaire to the mandatory respondents. All of the companies responded to the questionnaire except Tai Chiuan. In addition, we received section A responses from the following companies: Beijing Lianbin Plastics and Printing Company Limited (Beijing Lianbin); Dongguan Zhongqiao Combine Plastic Bag Factory (Dongguan Zhongqiao); Good-in Holdings Limited (Good-in Holdings); Guangdong Esquel Packaging Company, Limited (Guangdong Esquel); Nan Sing Plastics, Limited (Nan Sing); Ningbo Fanrong Plastic Products Company Limited (Ningbo Fanrong); Ningbo Huansen Plasthetics Company, Limited (Ningbo Huansen); Rain Continent Shanghai Company Limited (Rain Continent); Shanghai Dazhi Enterprise Development Company, Limited (Shanghai Dazhi); Shanghai Fangsheng Coloured Packaging Company Limited (Shanghai Fangsheng); Shanghai Jingtai Packaging Material Company, Limited (Shanghai Jingtai); Shanghai Light Industrial Products Import and Export Corporation (Shanghai Light Industrial); Shanghai Minmetals Development Limited (Shanghai Minmetals); Shanghai New Ai Lian Import and Export Company Limited (Shanghai New Ai Lian); Shanghai Overseas International Trading Company, Limited (Shanghai Overseas); Shanghai Yafu Plastics Industries Company Limited (Shanghai Yafu); Weihai Weiquan Plastic and Rubber Products Company, Limited (Weihai Weiquan); Xiamen Xingyatai Industry Company, Limited (Xiamen Xingyatai); Xinhui Henglong.

We issued supplemental questionnaires to the mandatory respondents which submitted full questionnaire responses. We received responses to all of the supplemental questionnaires except from Senetex. On December 3, 2003, Senetex submitted a letter in which it stated that it no longer wished to participate in the investigation.

On October 6, 2003, we requested publicly available information for valuing the factors of production and comments on surrogate-country selection. On November 20, 2003, we received comments from the petitioners on surrogate-country selection. On the same day, we received information for factor valuations from the petitioners and the mandatory respondents.

On October 16, 2003, the petitioners requested that the Department postpone its preliminary determination by 50 days. In accordance with section 733(c)(1)(A) of the Act, we postponed our preliminary determination by 50 days. See *Notice of Postponement of Preliminary Determinations in Antidumping Duty Investigations: Polyethylene Retail Carrier Bags From the People's Republic of China, Malaysia, and Thailand*, 68 FR 61656 (October 29, 2003).

Postponement of Final Determination and Extension of Provisional Measures

Section 735(a)(2)(A) of the Act provides that a final determination may be postponed until no later than 135 days after the date of the publication of the preliminary determination if, in the event of an affirmative preliminary determination, a request for such postponement is made by exporters who account for a significant proportion of exports of the subject merchandise. In accordance with 19 CFR 351.210(e)(2), the Department requires that exporters requesting postponement of the final determination must also request an extension of the provisional measures in section 733(d) of the Act from a four-month period until not more than six months.

We received requests to postpone the final determination from United Wah, Hang Lung, Rally Plastics, Glopack, and Ming Pak. In their requests, these respondents consented to the extension of provisional measures to no longer than six months. This preliminary determination is affirmative, the requests for postponement have been made by exporters that account for a significant proportion of exports of the subject merchandise, and there is no compelling reason to deny the respondents' requests. Therefore, we have extended the deadline for issuance of the final determination until 135 days after the date of publication of this

preliminary determination in the **Federal Register** and have extended provisional measures to no longer than six months.

Period of Investigation

The POI corresponds to the two most recent fiscal quarters prior to the filing of the petition, *i.e.*, October 1, 2002, through March 31, 2003.

Scope Comments

In accordance with the preamble to our regulations (see *Antidumping Duties; Countervailing Duties; Final Rule*, 62 FR 27296, 27323 (May 19, 1997)), we set aside a period of time for parties to raise issues regarding product coverage and encouraged all parties to submit comments within 20 calendar days of publication of the *Initiation Notice*. Interested parties submitted such comments by August 5, 2003.

Pursuant to the Department's solicitation of scope comments in the *Initiation Notice*, Regal Import Packaging, an importer of PRCBs, requested on August 4, 2003, that bags that are "four dimensional," bags with handles made of a material that differs from the bag itself, and custom-printed bags where the bag order is of 50,000 bags or less be excluded from the scope of the investigation. The importer asserted that these types of bags were not manufactured in the United States and therefore should be excluded from the scope of the investigation. On August 12, 2003, the petitioners commented that the bags in question were manufactured in the United States and requested that the investigation not exclude these types of bags. We have not adopted the changes in the scope of the investigation requested by Regal Import Packaging because we find the petitioners have placed sufficient evidence on the record to show that the bags in question are manufactured in the United States and fall within the scope of the petition.

Scope of Investigation

The merchandise subject to this investigation is PRCBs which may be referred to as t-shirt sacks, merchandise bags, grocery bags, or checkout bags. The subject merchandise is defined as non-sealable sacks and bags with handles (including drawstrings), without zippers or integral extruded closures, with or without gussets, with or without printing, of polyethylene film having a thickness no greater than .035 inch (0.889 mm) and no less than .00035 inch (0.00889 mm), and with no length or width shorter than 6 inches (15.24 cm) or longer than 40 inches (101.6 cm). The depth of the bag may be shorter than 6 inches but not longer than 40 inches (101.6 cm).

PRCBs are typically provided without any consumer packaging and free of charge by retail establishments (*e.g.*, grocery, drug, convenience, department, specialty retail, discount stores, and restaurants) to their customers to package and carry their purchased products. The scope of the investigation excludes (1) polyethylene bags that are not printed with logos or store names and that are closeable with drawstrings made of polyethylene film and (2) polyethylene bags that are packed in consumer packaging with printing that refers to specific end-uses other than packaging and carrying merchandise from retail establishments (*e.g.*, garbage bags, lawn bags, trash-can liners).

Imports of the subject merchandise are classified under statistical category 3923.21.0090 of the *Harmonized Tariff Schedule of the United States* (HTSUS). This subheading also covers products that are outside the scope of this investigation. Furthermore, although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

Selection of Respondents

Section 777A(c)(1) of the Act directs the Department to calculate individual dumping margins for each known exporter and producer of the subject merchandise. Section 777A(c)(2) of the Act gives the Department discretion, when faced with a large number of producers or exporters, to limit its examination to a reasonable number of such companies if it is not practicable to examine all companies.

On July 14, 2003, the Department sent a partial Section A questionnaire to all producers/exporters of the subject merchandise named in the petition and to the exporters who represent 80 percent of exporters of subject merchandise in terms of quantity imported (in thousands of units) into the United States according to data from CBP. We also sent the partial questionnaire to the Chinese government and asked for its assistance in delivering the questionnaire to all producers and exporters of the subject merchandise. We received responses from 39 firms that reported exports of subject merchandise during the POI.

There is no data on the record that indicates conclusively the number of producers or exporters from the PRC which exported the subject merchandise to the United States during the POI. Having received 39 responses from producers or exporters to our partial Section A questionnaire, we determined that we had the resources to examine a maximum of nine of the companies. We found it appropriate to select the largest producers/exporters of the subject merchandise from the 39 companies in order to cover the greatest possible export volume of the merchandise. Thus, we selected Hang Lung, United Wah, Nantong, Rally Plastics, Senetex, Glopack, Tai Chiuan, Ming Pak, and Zhongshan as our mandatory respondents. See Memorandum from Laurie Parkhill to Jeff May regarding selection of respondents, dated August 14, 2003.

Non-Market-Economy Country Status

The Department has treated the PRC as a non-market-economy (NME) country in all past antidumping investigations (see, *e.g.*, *Final Determination of Sales at Less Than Fair Value: Creatine Monohydrate from the People's Republic of China*, 64 FR 71104 (December 20, 1999), and *Final Determination of Sales at Less Than Fair Value: Certain Preserved Mushrooms from the People's Republic of China*, 63 FR 72255 (December 31, 1998)). A designation as an NME remains in effect until it is revoked by the Department (see section 771(18)(C) of the Act).

No party in this investigation has requested a revocation of NME status for the PRC. Therefore, we have preliminarily determined to continue to treat the PRC as an NME. When we investigate imports from an NME, section 773(c)(1) of the Act directs us to base the normal value on the NME producer's factors of production, valued in a market economy that is at a comparable level of economic development and that is a significant producer of comparable merchandise. The sources used to value individual factors are discussed in the "Factor Valuations" section below.

Separate Rates

In proceedings involving NME countries, the Department begins with a rebuttable presumption that all companies within the country are subject to government control and thus should be assessed a single antidumping duty deposit rate. In this case, the mandatory respondents Hang Lung, United Wah, Nantong, Rally Plastics, Senetex, Glopack, Ming Pak, and Zhongshan have requested separate company-specific rates. In addition, Beijing Lianbin, Dongguan Zhongqiao, Good-in Holdings, Guangdong Esquel, Nan Sing, Ningbo Fanrong, Ningbo Huansen, Rain Continent, Shanghai Dazhi, Shanghai Fangsheng, Shanghai Jingtai, Shanghai Light Industrial,

Shanghai Minmetals, Shanghai New Ai Lian, Shanghai Overseas, Shanghai Yafu, Weihai Weiquan, Xiamen Xingyatai, and Xinhui Henglong have requested separate rates.

It is the Department's policy to treat Hong Kong companies as market-economy companies. See *Application of U.S. Antidumping and Countervailing Duty Laws to Hong Kong*, 62 FR 42965 (August 11, 1997). Based on a review of the Section A responses, we have concluded that Good-in Holdings, Hang Lung, United Wah, Nan Sing, Rally Plastics, and Zhongshan are companies based in Hong Kong. Therefore, we determine that no separate-rate analysis is required for these companies.

Shanghai Glopack Packing Limited (Shanghai Glopack), an exporter with no PRC ownership, reported that it is affiliated with Sea Lake Polyethylene Enterprise Limited (Sea Lake), a Hong Kong-based company with no PRC ownership. Shanghai Glopack is controlled by the Law family, the family that also owns Sea Lake. See Glopack's Section A Response, dated September 11, 2003, at page 2. Because of these circumstances, we determine that no separate-rate analysis is required for Glopack.

In its Section A Response, dated September 11, 2003, on page A–4, Senetex claimed that it was not a PRC entity. We asked for documentation of company ownership in the November 20, 2003, supplemental questionnaire that we issued to that company. Instead of filing a response to the questionnaire, Senetex filed a letter on December 3, 2003, in which it stated that it no longer wished to participate in the investigation, including verification of the company's responses. Because the record does not establish clearly that Senetex is a non-PRC entity and because we are unable to verify information on this matter, we do not find that Senetex is entitled to a separate rate.

With respect to the companies based in China, in order to establish whether a company operating in an NME country is sufficiently independent to be eligible for a separate rate, it must establish an absence of governmental control on both a *de jure* and a *de facto* basis. In determining whether a company meets this requirement, the Department analyzes each exporting entity under the test established in *Final Determination of Sales at Less Than Fair Value: Sparklers from the People's Republic of China*, 56 FR 20588 (May 6, 1991), as amplified by *Final Determination of Sales at Less Than Fair Value: Silicon Carbide from the People's Republic of China*, 59 FR 22585 (May 2, 1994) (*Silicon Carbide*). Under this test, the Department assigns separate rates in NME cases only if an exporter can demonstrate the absence of both *de jure* and *de facto* governmental control over its export activities. See *Silicon Carbide*.

De Jure Control

In determining whether there is an absence of *de jure* government control, the Department considers the following: (1) an absence of restrictive stipulations associated with an individual exporter's business and export licenses; (2) any legislative enactments decentralizing control of companies; (3) any other formal measures by the government decentralizing control of companies. See *id.* In this case, the mandatory respondents Nantong and Ming Pak provided evidence on the record that indicates that their export activities are not controlled by the government. In addition, evidence on the record indicates that the export activities of the following companies are also not controlled by the government: Beijing Lianbin, Dongguan Zhongqiao, Guangdong Esquel, Ningbo Fanrong, Ningbo Huansen, Rain Continent, Shanghai Dazhi, Shanghai Fangsheng, Shanghai Jingtai, Shanghai Light Industrial, Shanghai Minmetals, Shanghai New Ai Lian, Shanghai Overseas, Shanghai Yafu, Weihai Weiquan, Xiamen Xingyatai, and Xinhui Henglong (collectively the Section A respondents).

The respondents have placed a number of documents on the record to demonstrate absence of de jure government control, including "Foreign Trade Law of the People's Republic of China" (Foreign Trade Law), "Company Law of the PRC" (Company Law), the "Administrative Regulations of the People's Republic of China Governing the Registration of Legal Corporations" (Administrative Regulations), and the "Law of the People's Republic of China on Industrial Enterprises Owned by the Whole People" (Industrial Enterprise Law). These laws indicate that the government lacks control over privately owned companies, such as Nantong or Ming Pak, and that these enterprises retain control over themselves.

The Department has analyzed these laws in prior cases and found that they establish an absence of de jure control. See, *e.g.*, *Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Certain Partial-Extension Steel Drawer Slides With Rollers From the People's Republic of China*, 60 FR 29571 (June 5, 1995), and *Final Determination of Sales at Less Than Fair Value: Certain Preserved Mushrooms From the People's Republic of China*, 63 FR 72255 (December 31, 1998). We have no new information in this proceeding which would cause us to reconsider this determination.

Accordingly, we preliminarily determine that there is an absence of *de jure* government control over export pricing and marketing decisions of the respondents identified in paragraph one of this section.

De Facto Control

The Department typically considers the following four factors in evaluating whether each respondent is subject to *de facto* governmental control of its export functions: (1) whether each exporter sets its own export prices independently of the government and without the approval of a government authority; (2) whether each exporter retains the proceeds from its sales and makes independent decisions regarding the disposition of profits or financing of losses; (3) whether each exporter has the authority to negotiate and sign contracts and other agreements; (4) whether each exporter has autonomy from the government regarding the selection of management. See *id.*

With respect to the absence of *de facto* government control over the export activities of the companies investigated and those which applied for a separate rate, evidence on the record indicates that the government has no involvement in the determination of export prices, profit distribution, marketing strategy, and contract negotiations with regard to Nantong, Ming Pak, or any of the Section A respondents. Our analysis indicates that there is no government involvement in the daily operations or the selection of management for these companies. In addition, we found that these companies' pricing and export strategy decisions are not subject to any governmental review or approval and that there are no governmental policy directives that affect these decisions.

Consequently, because evidence on the record indicates an absence of government control, both in law and in fact, over the export activities of all the companies named above, we preliminarily determine that these companies have met the requirements for receiving a separate rate for purposes of this investigation.

Margins for Cooperative Exporters Not Selected

Beijing Lianbin, Dongguan Zhongqiao, Good-in Holdings, Guangdong Esquel, Nan Sing, Ningbo Fanrong, Ningbo Huansen, Rain Continent, Shanghai Dazhi, Shanghai Fangsheng, Shanghai Jingtai, Shanghai Light Industrial,

Shanghai Minmetals, Shanghai New Ai Lian, Shanghai Overseas, Shanghai Yafu, Weihai Weiquan, Xiamen Xingyatai, and Xinhui Henglong have requested separate company-specific rates. These parties responded to Section A of the Department's antidumping questionnaire but were not selected as respondents in this investigation. They provided information to the Department, in a timely manner, for a separate-rate analysis. Although we are unable to calculate a company-specific rate for these companies due to administrative constraints (see Memorandum from Laurie Parkhill to Jeff May regarding selection of respondents, dated August 14, 2003), they cooperated in providing the information that we requested. Thus, we have calculated a weighted-average margin for these companies based on the rates we calculated for the selected respondents (see Memorandum from Thomas Schauer to the File regarding calculation of the adverse-facts-available and non-adverse-facts-available margins dated January 16, 2004). See, *e.g., Notice of Final Determination of Sales at Less Than Fair Value: Freshwater Crawfish Tail Meat From the People's Republic of China*, 62 FR 41347, 41350 (August 1, 1997). Companies receiving this "all others" rate of 12.71 percent are identified by name in the "Suspension of Liquidation" section of this notice.

The PRC-Wide Rate

All exporters were given the opportunity to respond to the Department's questionnaire. As explained above, we received responses to the full questionnaire from Hang Lung, United Wah, Nantong, Rally Plastics, Senetex, Glopack, Ming Pak, and Zhongshan. We have received responses to Section A of our questionnaire from Beijing Lianbin, Dongguan Zhongqiao, Good-in Holdings, Guangdong Esquel, Nan Sing, Ningbo Fanrong, Ningbo Huansen, Rain Continent, Shanghai Dazhi, Shanghai Fangsheng, Shanghai Jingtai, Shanghai Light Industrial, Shanghai Minmetals, Shanghai New Ai Lian, Shanghai Overseas, Shanghai Yafu, Weihai Weiquan, Xiamen Xingyatai, and Xinhui Henglong. Tai Chiuan, a mandatory respondent, did not respond to our full questionnaire and withdrew itself from this investigation on September 8, 2003; its response to our July 14, 2003, questionnaire indicated it exported the subject merchandise to the United States during the POI. Another mandatory respondent, Senetex, responded to our full questionnaire but then refused to file a response to a supplemental questionnaire and withdrew its participation in the investigation. Thus, we preliminarily determine that these two PRC exporters of PRCBs failed to respond to our requests for information. Moreover, we assume that the firms which received our July 14, 2003, questionnaire but did not respond to it (see the "Case History" section above) also exported the subject merchandise to the United States during the POI. In addition, we obtained data from CBP that indicated that a number of these companies may have exported the subject merchandise to the United States during the POI. Consequently, we are applying a single antidumping rate the PRC-wide rate to all other exporters in the PRC based on our presumption that those respondents which failed to demonstrate entitlement to a separate rate constitute a single enterprise under common control by the Chinese government. See, *e.g., Final Determination of Sales at Less Than Fair Value: Synthetic Indigo from the People's Republic of China*, 65 FR 25706, 25707 (May 3, 2000). The PRC-wide rate applies to all entries of subject merchandise except for entries from companies which we have preliminarily determined to have met the requirements for receiving a separate rate for purposes of this investigation.

Use of Facts Otherwise Available

Section 776(a)(2) of the Act provides that, if an interested party withholds information that has been requested by the Department, fails to provide such information in a timely manner or in the form or manner requested, significantly impedes a proceeding under the antidumping statute, or provides such information but the information cannot be verified, the Department shall, subject to sections 782(d) and (e) of the Act, use facts otherwise available in reaching the applicable determination.

Section 776(a)(2)(B) of the Act requires the Department to use facts available when a party does not provide the Department with information by the established deadline or in the form and manner requested by the Department. In addition, section 776(b) of the Act provides that, if the Department finds that an interested party "has failed to cooperate by not acting to the best of its ability to comply with a request for information," the Department may use information that is adverse to the interests of that party as facts otherwise available.

As explained above, the exporters comprising the single PRC-wide entity failed to respond to the Department's requests for information. Pursuant to section 776(a) of the Act, in reaching our preliminary determination, we have used total facts available for the PRC-wide rate because we did not receive the data needed to calculate a margin for that entity. Also, because the exporters comprising the PRC-wide entity failed to respond to our requests for information, we have found that the PRC-wide entity failed to cooperate to the best of its ability. Therefore, pursuant to section 776(b) of the Act, we have used an adverse inference in selecting from the facts available for the margin for that entity. As adverse facts available, we have recalculated the four margins that the petitioners alleged in their June 20, 2003, petition using the surrogate values that we selected for the preliminary determination and selecting the highest of the four margins, since the margins derived from the information in the petition exceed those we calculated for the respondent companies. For details on this calculation, see the Memorandum from Thomas Schauer to the File regarding calculation of the adverse-facts-available and non-adverse-facts-available margins dated January 16, 2004.

In addition, we have determined that the use of a partial adverse inference is warranted for certain U.S. sales reported by Zhongshan. On January 12, 2004, four days before the due date of our preliminary determination, Zhongshan submitted information in which it disclosed that an affiliation relationship existed between it and a Hong Kong reseller. Because the timing of Zhongshan's submission precluded us from analyzing this affiliation completely or from requesting additional information pertaining to the matter for purposes of this preliminary determination, we found that Zhongshan had failed to cooperate to the best of its ability in responding to our requests for information. Accordingly, we have applied the adverse-facts-available rate, as described above, to all of Zhongshan's sales of subject merchandise through this Hong Kong reseller in our calculations for this preliminary determination. The Department will evaluate whether the submitted information should be used for purposes of the final determination. For a detailed discussion of this matter, see the calculation memorandum with respect to Zhongshan dated January 16, 2004.

We have preliminarily determined to use facts otherwise available for all sales reported by Nantong. In our original and supplemental questionnaires, we requested that Nantong report its factors-of-production information on a product-specific basis. On January 12, 2004, Nantong clarified that its usual

business practices did not permit it to allocate its use of inputs on this basis and that, therefore, it could only provide factor information on a more generalized basis. We have concluded that we are unable to calculate a margin because, as provided, the factor information is distortive of the amount of raw material inputs used in the production of the various reported products. Thus, pursuant to section 776(a) of the Act, we have determined to use total facts available for Nantong's sales. We have found that an adverse inference is not warranted in the selection of the facts available since Nantong provided timely responses to all of our requests for information and, without evidence to the contrary, acted to the best of its ability to provide the requested factors-of-production information. Therefore, pending our findings at verification, we have concluded that an adverse inference, pursuant to section 776(b) of the Act, is not warranted. Consequently, we have applied the "all others" rate to Nantong's sales as the facts otherwise available. For a more detailed discussion of this matter, see the calculation memorandum with respect to Nantong dated January 16, 2004.

Section 776(c) of the Act provides that, where the Department selects from among the facts otherwise available and relies on "secondary information," such as the petition, the Department shall, to the extent practicable, corroborate that information from independent sources reasonably at the Department's disposal. The Statement of Administrative Action accompanying the URAA, H.R. Doc. No. 103–316 (1994) (SAA), states that "corroborate" means to determine that the information used has probative value. See SAA at 870.

The petitioners' methodology for calculating the export price and normal value in the petition is discussed in the initiation notice. See *Initiation Notice*, 68 FR at 42003. To corroborate the recalculated margin of 80.52 percent, we compared that margin to the margins we found for one of the respondents.

As discussed in the Memorandum to the File regarding the corroboration of facts available, dated January 16, 2004, we found that the margin of 80.52 percent has probative value. Accordingly, we find that the highest margin, based on petition information and adjusted as described above, of 80.52 percent is corroborated within the meaning of section 776(c) of the Act.

Accordingly, for the preliminary determination, the PRC-wide rate is 80.52 percent. Because this is a preliminary margin, the Department will consider all margins on the record at the time of the final determination for the purpose of determining the most appropriate final PRC-wide margin.

Surrogate Country

When the Department is investigating imports from an NME country, section 773(c)(1) of the Act directs that normal value, in most circumstances, be based on the NME producer's factors of production, valued in a surrogate market-economy country or countries selected in accordance with section 773(c)(4) of the Act. In accordance with that provision, the Department shall utilize, to the extent possible, the prices or costs of factors of production in one or more market-economy countries that are at a level of economic development comparable to the NME country and are significant producers of comparable merchandise. The sources of the surrogate factor values are discussed in the "Normal Value" section below.

The Department has determined that India, Pakistan, Indonesia, Sri Lanka, and the Philippines are countries comparable to the PRC in terms of economic development. See Memorandum from Ron Lorentzen to Laurie Parkhill regarding surrogate-country selection dated August 25, 2003. Customarily, we select an appropriate surrogate based on the availability and reliability of data from these countries. In this case, we have found that India is a significant producer of comparable merchandise and that we have reliable data from India that we can use to value the factors of production. Furthermore, every party that submitted factor-valuation data provided data from India and no party argued that we should use another country as the surrogate country.

We have selected India as the surrogate country and, accordingly, we have calculated normal value using Indian prices when available and appropriate to value the factors of production of the PRCBs producers. We have obtained and relied upon publicly available information wherever possible. See the Memorandum from Jeff Frank to the File regarding surrogate-country selection and factor valuations dated January 16, 2004 (Factor Valuation Memorandum).

In accordance with section 351.301(c)(3)(i) of the Department's regulations, for the final determination in an antidumping investigation, interested parties may submit publicly available information to value factors of production within 40 days of the date of publication of this preliminary determination.

Fair Value Comparisons

To determine whether sales of PRCBs to the United States were made at less than fair value, we compared export price or constructed export price to normal value, as described in the "U.S. Price" and "Normal Value" sections of this notice below. In accordance with section 777A(d)(1)(A)(i) of the Act, we calculated weighted-average export prices and constructed export prices.

In making the product comparisons, we determined what products constituted a unique model based on the following physical characteristics reported by the respondents: 1) quality, 2) bag type, 3) length, 4) width, 5) gusset, 6) thickness, 7) percent of high-density polyethylene resin, 8) percent of low-density polyethylene resin, 9) percent of low-linear-density polyethylene resin, 10) percent of color concentrate, 11) percent of ink coverage, 12) number of ink colors, 13) number of sides printed.

U.S. Price

In accordance with section 772(a) of the Act, we used export price for Hang Lung, Rally Plastics, Ming Pak, and Zhongshan because the subject merchandise was sold directly to unaffiliated customers in the United States prior to importation and because constructed export price was not otherwise indicated. In accordance with section 772(b) of the Act, we used constructed export price for United Wah and Glopack because the subject merchandise was sold in the United States after the date of importation by a U.S. seller affiliated with the producer. In accordance with section 777A(d)(1)(A)(i) of the Act, we compared POI-wide weighted-average export prices and constructed export prices to the normal values.

We calculated export price and constructed export price based on the packed F.O.B., C.I.F., or delivered price to unaffiliated purchasers in, or for exportation to, the United States. We made deductions, as appropriate, for discounts and rebates. We also made deductions for any movement expenses in accordance with section 772(c)(2)(A) of the Act.

In accordance with section 772(d)(1) of the Act and the SAA at 823–824, we calculated the constructed export price by deducting selling expenses associated with economic activities occurring in the United States, which includes commissions, direct selling expenses, and indirect selling expenses. For United Wah, we also deducted the cost of further manufacturing in accordance with section 772(d)(2) of the

Act. Finally, we made an adjustment for profit allocated to these expenses in accordance with section 772(d)(3) of the Act.

Normal Value

Section 773(c)(1) of the Act provides that the Department shall determine the normal value using a factors-of-production methodology if (1) the merchandise is exported from an NME country and (2) the information does not permit the calculation of normal value using home-market prices, third-country prices, or constructed value under section 773(a) of the Act.

Factors of production include (1) hours of labor required, (2) quantities of raw materials employed, (3) amounts of energy and other utilities consumed, and (4) representative capital costs. We used reported factors of production for materials, energy, labor, and packing. We valued all input factors not obtained from market economies using publicly available published information as discussed in the "Surrogate Country" and "Factor Valuations" sections of this notice.

In accordance with 19 CFR 351.408(c)(1), where a producer sources an input from a market economy and pays for it in market-economy currency, the Department employs the actual price paid for the input to calculate the factors-based normal value. See also *Lasko Metal Products v. United States*, 43 F.3d 1442, 1445–1446 (Fed. Cir. 1994). A number of respondents reported that some of their inputs were purchased from market economies and paid for in market-economy currency. See the "Factor Valuations" section below.

Factor Valuations

In accordance with section 773(c) of the Act, we calculated normal value based on factors of production reported by respondents for the POI. To calculate normal value, we multiplied the reported per-unit factor quantities by publicly available Indian surrogate values (except as described below). In selecting the surrogate values, we considered the quality, specificity, and contemporaneity of the data. As appropriate, we adjusted input prices by including freight costs to make them delivered prices. For a detailed description of all surrogate values used for respondents, see the Factor Valuation Memorandum. For a detailed description of all actual values used for market-economy inputs, see the company-specific calculation memoranda dated January 16, 2004.

Because we used Indian import values to value inputs purchased domestically by the Chinese producers, we added surrogate freight costs to the calculated surrogate values. We calculated the freight costs by selecting the shorter of the reported distances from a domestic supplier to the factory or the distance from the nearest seaport to the factory in accordance with the decision by the Court of Appeals for the Federal Circuit in *Sigma Corp. v. United States*, 117 F. 3d 1401 (Fed. Cir. 1997). Because some of the values were not contemporaneous with the POI, we adjusted those values for inflation using wholesale price indices published in the International Monetary Fund's *International Financial Statistics*.

Except as described below, we valued raw material inputs using the weighted-average unit import values derived from Indian import data available from the *World Trade Atlas* (Internet Version, maintained by Global Trade Information Services, Incorporated) (Indian Import Statistics) for the period October 2002 through March 2003.

As explained above, a number of respondents purchased certain raw material inputs from market-economy suppliers and paid for them in market-economy currencies. The respondents provided evidence that indicated they paid for their market-economy purchases of inputs in a market-economy currency. Therefore, in accordance with 19 CFR 351.408(c)(1), the Department has determined to use the market-economy prices as reported by the respondents in order to value these inputs in instances where the inputs were obtained from both market-economy and NME suppliers because the market-economy inputs represent a significant quantity of the inputs and they were paid for in a market-economy currency.

Furthermore, with regard to both the Indian import-based surrogate values and the market-economy input values, we have disregarded prices that we have reason to believe or suspect may be subsidized. We have reason to believe or suspect that prices of inputs from India, Indonesia, South Korea, and Thailand may have been subsidized. We have found in other proceedings that these countries maintain broadly available, non-industry-specific export subsidies and, therefore, it is reasonable to infer that all exports to all markets from these countries are subsidized. See *Certain Helical Spring Lock Washers from the People's Republic of China; Final Results of Administrative Review*, 61 FR 66255 (December 17, 1996), at Comment 1. We are also directed by the legislative history not to conduct a formal investigation to ensure that such prices are not subsidized. See H.R. Rep. 100–576 at 590 (1988). Rather, the Department was instructed by Congress to base its decision on information that is available to it at the time it is making its determination. Therefore, we have not used prices from these countries either in calculating the Indian import-based surrogate values or in calculating market-economy input values. In instances where a market-economy input was obtained solely from suppliers located in these countries, we used Indian import-based surrogate values to value the input.

Rally Plastics, Hang Lung, and Ming Pak reported the use of recycled resin scrap in the production of its subject merchandise. Because the scrap represented the re-use of purchased raw materials, we only valued the labor and electricity used to recycle the scrap when valuing this input.

Zhongshan reported amounts of resin scrap produced as a result of the production of subject merchandise. We valued the scrap by using Indian Import Statistics for imports of polyethylene scrap and thereby granted a by-product offset for the scrap. We intend to examine the issue of this offset more closely at verification.

To value electricity, we used data from the International Energy Agency's *Key World Energy Statistics* (2003 edition). Submitted by the petitioners in Exhibit 5 of their November 20, 2003, submission, this information is contemporaneous with the POI.

The respondents also reported packing inputs. We used Indian Import Statistics data from the period October 2002 through March 2003 to value these inputs except where respondents obtained the inputs from market-economy suppliers and paid for them in a market-economy currency.

We used Indian transport information in order to value the transportation of raw materials. To calculate domestic inland freight for trucking services, we selected the week of January 1, 2003, the week in the middle of the POI, and obtained freight values from the website *www.infreight.com*. We converted the Indian Rupee value into U.S. dollars. To calculate domestic inland freight for rail services, we relied upon a rate used in the *Final Results of Antidumping Administrative Review of Bulk Aspirin from the People's Republic of China*, 68 FR 48337 (August 13, 2003). We adjusted the rate for inflation and converted the Rupee value to U.S. dollars. Some inputs were transported by market-economy transportation firms and paid for in a market-economy currency. Where this was the case, we added the actual market-economy

transportation expense to the valuation of the factor of production.

For NME-supplied marine insurance, we relied upon a rate calculated in the LTFV investigation of certain color television receivers from the PRC. See the Calculations Performed for Xiamen Overseas Chinese Electronic Company, Limited, Memorandum, dated November 21, 2003, at Attachment IX. Because the rate we used is contemporaneous with the POI and in U.S. dollars, we did not need to adjust it for our calculations. As is customary in the marine insurance industry, we applied the rate to 110 percent of the value of the cargo.

To value factory overhead expenses, selling, general, and administrative expenses (SG&A), and profit we calculated a rate based on financial statements from an Indian producer of comparable merchandise, Smitabh Intercon Ltd. For a detailed discussion of the surrogate values for overhead, SG&A, and profit, see the Factor Valuation Memorandum.

For labor, consistent with 19 CFR 351.408(c)(3), we used the PRC regression-based wage rate at Import Administration's website, *http://ia.ita.doc.gov/wages/corrected00wages/corrected00wages.htm*. The source of the wage-rate data on the Import Administration's website is the International Labour Organization's *Yearbook of Labour Statistics 2001*.

Currency Conversion

We made currency conversions into U.S. dollars in accordance with section 773A(a) of the Act based on the exchange rates in effect on the dates of the U.S. sales as certified by the Federal Reserve Bank.

Verification

As provided in section 782(i) of the Act, we will verify the information upon which we will rely in making our final determination.

Suspension of Liquidation

In accordance with section 733(d) of the Act, we are directing CBP to suspend liquidation of all imports of subject merchandise from the PRC that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the **Federal Register**. We will instruct CBP to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the normal value exceeds the export price or the constructed export price, as indicated in the chart below except for Hang Lung. Because the estimated weighted-average amount for Hang Lung is *de minimis*, we are not directing CBP to suspend liquidation of entries of its merchandise. In this instance, the Department shall not require a deposit or posting of bond. These suspension-of-liquidation instructions will remain in effect until further notice. The weighted-average dumping margins are as follows:

Exporter or Producer	Weighted-average percent margin
Hang Lung	0.12
United Wah	16.55
Nantong	12.71
Rally Plastics	9.01
Glopack	4.45
Ming Pak	32.19
Zhongshan	57.09
Beijing Lianbin	12.71
Dongguan Zhongqiao	12.71
Good-in Holdings	12.71
Guangdong Esquel	12.71
Nan Sing	12.71
Ningbo Fanrong	12.71
Ningbo Huansen	12.71
Rain Continent	12.71
Shanghai Dazhi	12.71
Shanghai Fangsheng	12.71
Shanghai Jingtai	12.71
Shanghai Light Industrial	12.71
Shanghai Minmetals	12.71
Shanghai New Ai Lian	12.71
Shanghai Overseas	12.71
Shanghai Yafu	12.71
Weihai Weiquan	12.71
Xiamen Xingyatai	12.71
Xinhui Henglong	12.71
PRC-wide Rate	80.52

The PRC-wide rate applies to all entries of the subject merchandise produced in the PRC except for entries from exporters or producers that are identified individually above.

International Trade Commission Notification

In accordance with section 733(f) of the Act, we have notified the ITC of our determination of sales at LTFV. Section 735(b)(2) requires that the ITC make a final determination before the later of 120 days after the date of the Department's preliminary determination or 45 days after the Department's final determination whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports, or sales (or the likelihood of sales) for importation, of the subject merchandise. Because we have postponed the deadline for our final determination to 135 days from the date of publication of this preliminary determination, the ITC will make its final determination within 45 days of our final determination.

Public Comment

Case briefs or other written comments may be submitted to the Assistant Secretary for Import Administration no later than seven days after the date of the final verification report issued in this proceeding and rebuttal briefs, limited to issues raised in case briefs, no later than five days after the deadline date for case briefs. A list of authorities

used and an executive summary of issues should accompany any briefs submitted to the Department. This summary should be limited to five pages total, including footnotes. In accordance with section 774 of the Act, we will hold a public hearing, if requested, to afford interested parties an opportunity to comment on arguments raised in case or rebuttal briefs. Tentatively, any hearing will be held three days after the deadline for submission of the rebuttal briefs at the U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230, at a time and location to be determined. Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date. Interested parties who wish to request a hearing, or to participate if one is requested, must submit a written request to the Assistant Secretary for Import Administration, U.S. Department of Commerce, Room 1870, within 30 days of the date of publication of this notice. See 19 CFR 351.310(c). Requests should contain (1) the party's name, address, and telephone number, (2) the number of participants, and (3) a list of the issues to be discussed. At the hearing, each party may make an affirmative presentation only on issues raised in that party's case brief and may make rebuttal presentations only on arguments included in that party's rebuttal brief. See 19 CFR 351.310(c).

We will make our final determination no later than 135 days after the date of publication of the preliminary determination.

This determination is issued and published in accordance with sections 733(f) and 777(i)(1) of the Act.

Dated: January 16, 2004.

James J. Jochum,

Assistant Secretary for Import Administration.

[FR Doc. 04–1574 Filed 1–23–04; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A-549–821]

Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Polyethylene Retail Carrier Bags from Thailand

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: January 26, 2004.

SUMMARY: We preliminarily determine that polyethylene retail carrier bags from Thailand are being, or are likely to be, sold in the United States at less than fair value, as provided in section 733 of the Tariff Act of 1930, as amended. Interested parties are invited to comment on this preliminary determination. We will make our final determination not later than 135 days after the date of publication of this preliminary determination.

FOR FURTHER INFORMATION CONTACT: Lyn Johnson (Thai Plastic Bags) or Fred Aziz (Universal Polybag), Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482–4733.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

The Department of Commerce (the Department) has conducted this antidumping investigation in accordance with section 733 of the Tariff Act of 1930, as amended (the Act). We preliminarily determine that polyethylene retail carrier bags (PRCBs) from Thailand are being sold, or are likely to be sold, in the United States at less than fair value (LTFV), as provided in section 733 of the Act. The estimated margins of sales at LTFV are shown in the "Suspension of Liquidation" section of this notice.

Case History

We initiated this investigation on July 10, 2003. See *Initiation of Antidumping Duty Investigations: Polyethylene Retail Carrier Bags from The People's Republic of China, Malaysia, and Thailand*, 68 FR 42002 (July 16, 2003) (*Initiation Notice*). Since the initiation of this investigation the following events have occurred.

On July 14, 2003, we issued a letter to interested parties in this investigation providing an opportunity to comment on the characteristics we should use in identifying the different models the respondents sold in the United States. The petitioners and both respondents submitted comments on July 28, 2003. No other party submitted comments. After reviewing the parties' comments, we have adopted the characteristics and hierarchy as explained in the "Fair Value Comparisons" section, below.

On July 14, 2003, we sent a partial section A questionnaire to all of the producers and exporters named in the petition and to the producers/exporters who comprise the top 80 percent of producers and exporters in terms of quantity produced (in thousands of units) of the subject merchandise according to data from U.S. Customs and Border Protection (CBP). We requested information on the quantity and value of merchandise sold by these producers/exporters in order to identify potential respondents in the investigation. We received responses from eight firms which reported exports of subject merchandise during the period of investigation (POI). In addition, a number of firms indicated that they did not export subject merchandise to the United States during the POI. We did not receive responses from Champion Paper Polybags Ltd., TRC Polypack, and Zip-Pac Co., Ltd. The record indicates that these companies received our July 14, 2003, questionnaire. On August 1, 2003, we sent a letter to these firms to reiterate our request for a response to our July 14, 2001, questionnaire. We received no responses from these firms.

On August 4, 2003, the United States International Trade Commission (ITC) issued its affirmative preliminary determination that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of the subject merchandise from the PRC, Malaysia, and Thailand, which the ITC published in the **Federal Register** on August 11, 2003. See *Polyethylene Retail Carrier Bags From China, Malaysia, and Thailand*, 68 FR 47609 (August 11, 2003).

On August 14, 2003, the Department selected Thai Plastic Bags Industries Co., Ltd. (Thai Plastic Bags), and Universal Polybag Co., Ltd. (Universal), as mandatory respondents. See Memorandum from Laurie Parkhill to Jeff May dated August 14, 2003.

On August 14, 2003, the Department issued its antidumping questionnaire to the mandatory respondents. Both mandatory respondents responded to our questionnaire. We issued supplemental questionnaires to the mandatory respondents and received responses from both companies to our supplemental questionnaires. Because Thai Plastic Bags is comprised of three companies (Thai Plastic Bags Industries Co., Ltd., Winner's Pack Co., Ltd., and APEC Film Ltd.), it provided a unified response to our questionnaires with respect to the collapsed companies.

On October 16, 2003, the petitioners requested that the Department postpone its preliminary determination by 50 days. In accordance with section 733(c)(1)(A) of the Act, we postponed our preliminary determination by 50 days. See *Notice of Postponement of Preliminary Determinations in Antidumping Duty Investigations:*

Polyethylene Retail Carrier Bags From the People's Republic of China, Malaysia, and Thailand, 68 FR 61656 (October 29, 2003).

Postponement of Final Determination and Extension of Provisional Measures

Section 735(a)(2) of the Act provides that a final determination may be postponed until not later than 135 days after the date of the publication of the preliminary determination if, in the event of an affirmative preliminary determination, a request for such postponement is made by exporters who account for a significant proportion of exports of the subject merchandise. In accordance with 19 CFR 351.210(e)(2), the Department requires that exporters requesting postponement of the final determination must also request an extension of the provisional measures in section 733(d) of the Act from a four-month period until not more than six months.

We received a request to postpone the final determination from Thai Plastic Bags. In its request, Thai Plastic Bags consented to the extension of provisional measures to no longer than six months. Since this preliminary determination is affirmative, the request for postponement is made by an exporter that accounts for a significant proportion of exports of the subject merchandise, and there is no compelling reason to deny the respondent's request. Therefore, we have extended the deadline for issuance of the final determination until the 135th day after the date of publication of this preliminary determination in the **Federal Register** and have extended provisional measures to no longer than six months.

Period of Investigation

The POI corresponds to the four most recent fiscal quarters prior to the filing of the petition, *i.e.*, April 1, 2002, through March 31, 2003.

Scope Comments

In accordance with the preamble to our regulations (see *Antidumping Duties; Countervailing Duties*, 62 FR 27296, 27323 (May 19, 1997)), we set aside a period of time for parties to raise issues regarding product coverage and encouraged all parties to submit comments within 20 calendar days of publication of the *Initiation Notice* (see 66 FR 42002). Interested parties submitted such comments by August 5, 2003.

Pursuant to the Department's solicitation of scope comments in the *Initiation Notice* on August 4, 2003, Regal Import Packaging, an importer of PRCBs, requested that bags that are "four dimensional", bags with handles made of a material that differs from the bag itself, and custom-printed bags where the bag order is of 50,000 bags or less, be excluded from the scope of the investigation. The importer asserted that these types of bags were not manufactured in the United States and therefore should be excluded from the scope of the investigation. On August 12, 2003, the petitioners commented that the bags in question were manufactured in the United States and requested that the scope of the investigation not exclude these types of bags. We have not adopted the changes in the scope of the investigation requested by Regal Import Packaging because we find the petitioners have placed sufficient evidence on the record to show that the bags in question are manufactured in the United States and fall within the scope of the investigation.

Scope of Investigation

The merchandise subject to this investigation is polyethylene retail carrier bags, which also may be referred to as t-shirt sacks, merchandise bags, grocery bags, or checkout bags. The subject merchandise is defined as non-sealable sacks and bags with handles (including drawstrings), without zippers or integral extruded closures, with or without gussets, with or without printing, of polyethylene film having a thickness no greater than .035 inch (0.889 mm) and no less than .00035 inch (0.00889 mm), and with no length or width shorter than 6 inches (15.24 cm) or longer than 40 inches (101.6 cm). The depth of the bag may be shorter than 6 inches but not longer than 40 inches (101.6 cm).

PRCBs are typically provided without any consumer packaging and free of charge by retail establishments (*e.g.*, grocery, drug, convenience, department, specialty retail, discount stores and restaurants) to their customers to package and carry their purchased products. The scope of the petition excludes (1) polyethylene bags that are not printed with logos or store names and that are closeable with drawstrings made of polyethylene film and (2) polyethylene bags that are packed in consumer packaging with printing that refers to specific end-uses other than packaging and carrying merchandise from retail establishments (*e.g.*, garbage bags, lawn bags, trash-can liners).

Imports of the subject merchandise are classified under statistical category 3923.21.0090 of the *Harmonized Tariff Schedule of the United States*. This subheading also covers products that are outside the scope of this investigation. Furthermore, although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

Selection of Respondents

Section 777A(c)(1) of the Act directs the Department to calculate individual dumping margins for each known exporter and producer of the subject merchandise. Section 777A(c)(2) of the Act gives the Department discretion, when faced with a large number of exporters or producers, to limit its examination to a reasonable number of such companies if it is not practicable to examine all companies. There is no data on the record that indicates conclusively the number of producers or exporters from Thailand that exported the subject merchandise to the United States during the POI. We also determined that we only had the resources to investigate two companies.

On July 14, 2003, the Department sent partial section A questionnaires addressed to all producers/exporters of the subject merchandise listed in the petition. As discussed above, we received responses from a number of firms in this investigation. Based on the responses we received to our July 14, 2003, questionnaire, we selected Thai Plastic Bags and Universal as mandatory respondents. We selected Thai Plastic Bags and Universal because these two firms account for 85.2 percent of known U.S. imports of subject merchandise and we do not have the resources to investigate all potential respondents. See Memorandum from Laurie Parkhill to Jeff May dated August 14, 2003.

Use of Facts Otherwise Available

Section 776(a)(2) of the Act provides that, if an interested party withholds information that has been requested by the Department, fails to provide such information in a timely manner or in the form or manner requested, significantly impedes a proceeding under the antidumping statute, or provides such information but the information cannot be verified, the Department shall, subject to sections 782(d) and (e) of the Act, use facts otherwise available in reaching the applicable determination.

Section 776(a)(2)(B) of the Act requires the Department to use facts available when a party does not provide the Department with information by the established deadline or in the form and manner requested by the Department. In addition, section 776(b) of the Act provides that, if the Department finds that an interested party "has failed to cooperate by not acting to the best of its

ability to comply with a request for information," the Department may use information that is adverse to the interests of that party as facts otherwise available.

As explained above, Champion Paper Polybags Ltd., TRC Polypack, and Zip-Pac Co., Ltd., failed to respond to our July 14, 2003, request for information. Pursuant to section 776(a) of the Act, in reaching our preliminary determination, we have used total facts available for all three of these companies because these firms did not provide the data we needed to decide whether they should be selected as a mandatory respondent. Also, because these companies failed to respond to our requests for information, we have found that they failed to cooperate to the best of their ability. Therefore, pursuant to section 776(b) of the Act, we have used an adverse inference in selecting from the facts available for the margins for these companies. As adverse facts available, we used the margins that the petitioners alleged in their June 20, 2003, petition and selected the highest of the three margins which we calculated to be 122.88 percent.

Section 776(c) of the Act provides that the Department shall, to the extent practicable, corroborate secondary information used for facts available by reviewing independent sources reasonably at its disposal. Information from the petitioners constitutes secondary information. The Statement of Administrative Action accompanying the Uruguay Round Agreements Act, H.R. Doc. 103–316, at 870 (1994) (SAA), provides that the word "corroborate" means that the Department will satisfy itself that the secondary information used has probative value. As explained in *Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from Japan, and Tapered Roller Bearings Four Inches or Less in Outside Diameter, and Components Thereof, from Japan: Preliminary Results of Antidumping Duty Administrative Reviews and Partial Termination of Administrative Review*, 61 FR 57391, 57392 (November 6, 1996) (*Tapered Roller Bearings and Parts Thereof from Japan*), in order to corroborate secondary information, the Department will examine, to the extent practicable, the reliability and relevance of the information used.

The petitioners' methodology for calculating the export price (EP) and normal value in the petition is discussed in the initiation notice. See *Initiation Notice*, 68 FR at 42003–4. To corroborate the petitioners' EP and normal-value calculations, we compared the prices and expenses in the petition to the prices and expenses submitted by the responding companies for comparable products.

As discussed in the memorandum to the file entitled Corroboration of Facts Available, dated January 16, 2004, we found that the EP and normal-value information in the petition were reasonable and, therefore, we preliminarily determine that the petition information has probative value. Accordingly, we find that the highest margin based on petition information and adjusted as described above, 122.88 percent, is corroborated within the meaning of section 776(c) of the Act.

Furthermore, there is no information on the record that demonstrates that the rate we have selected is an inappropriate total adverse facts-available rate for the companies in question. On the contrary, our existing record supports the use of this rate as the best indication of the EP and dumping margin for these firms. Therefore, we consider the selected rate to have probative value with respect to the firms in question and to reflect the appropriate adverse inference.

Accordingly, for the preliminary determination, the margin for Champion Paper Polybags Ltd., TRC Polypack, and Zip-Pac Co., Ltd., is 122.88 percent. Because these are preliminary margins, the Department will consider all margins on the record at the time of the final determination for the purpose of determining the most appropriate final margins for these companies.

Fair Value Comparisons

To determine whether sales of PRCBs to the United States by Thai Plastic Bags and Universal in this investigation were made at less than fair value, we compare EP or constructed export price (CEP) to normal value, as described in the "U.S. Price" and "Normal Value" sections of this notice. In accordance with section 777A(d)(1)(A)(i) of the Act, we calculated weighted-average EPs and CEPs.

In making the product comparisons, we matched foreign like products based on the physical characteristics reported by the respondents in the following order of importance: 1) quality, 2) bag type, 3) length, 4) width, 5) gusset, 6) thickness, 7) percent of high density polyethylene resin, 8) percent of low density polyethylene resin, 9) percent of low linear density polyethylene resin, 10) percent of color concentrate, 11) percent of ink coverage, 12) number of ink colors, 13) number of sides printed.

U.S. Price

In accordance with section 772(a) of the Act, we used EP for Thai Plastic Bags because the subject merchandise was sold directly to unaffiliated customers in the United States prior to importation. In accordance with section 772(b) of the Act, we also used CEP for Thai Plastic Bags and for Universal because the subject merchandise was sold in the United States after the date of importation by a U.S. seller affiliated with the producer. In accordance with section 777A(d)(1)(A)(I) of the Act, we compared POI-wide weighted-average EPs and CEPs to the normal values.

We calculated EP and CEP based on the packed F.O.B., C.I.F., or delivered price to unaffiliated purchasers in, or for exportation to, the United States. We made deductions, as appropriate, for discounts and rebates. We also made deductions for any movement expenses in accordance with section 772(c)(2)(A) of the Act. With respect to Thai Plastic Bags, we did not allow its claim of a duty drawback on U.S. sales since it has not provided sufficient or legible documentation to support its claim. In addition, it is not clear from Thai Plastic Bag's responses how it determined which of the three duty-drawback schemes to apply to each transaction it reported in its sales listing. See the Thai Plastic Bags Analysis Memorandum from the case analyst to the file dated January 16, 2004, for additional information. We will review this issue further during our verification of Thai Plastic Bag's home-market sales.

In accordance with section 772(d)(1) of the Act and the SAA at 823–824, we calculated the CEP by deducting selling expenses associated with economic activities occurring in the United States, which includes commissions, direct selling expenses, indirect selling expenses, and U.S. repacking expenses. Finally, we made an adjustment for profit allocated to these expenses in accordance with section 772(d)(3) of the Act.

The petitioners have identified an issue with respect to Universal in a number of comments submitted on the record in this investigation. Because of the business proprietary nature of this issue, please see the decision memorandum from Laurie Parkhill to Jeffrey May dated January 16, 2004, for a discussion of the issue.

Normal Value

1. Home-Market Viability

Based on a comparison of the aggregate quantity of home-market and U.S. sales and absent any information that a particular market situation in the

exporting country did not permit a proper comparison, we determined that the quantity of foreign like product sold by Thai Plastic Bags in the exporting country was sufficient to permit a proper comparison with the sales of the subject merchandise to the United States, pursuant to section 773(a) of the Act. This company's quantity of sales in its home market was greater than five percent of its sales to the U.S. market. Therefore, in accordance with section 773(a)(1)(B)(I) of the Act, we based normal value on the prices at which the foreign like products were first sold for consumption in the exporting country.

The Department determined, based on Universal's response, that its home market was not viable. Furthermore, Universal's sole third-country market was also not viable. Therefore, in accordance with section 773(a)(4) of the Act, we based normal value on constructed value for Universal.

2. Affiliated-Party Transactions and Arm's-Length Test

The Department may calculate normal value based on a sale to an affiliated party only if it is satisfied that the price to the affiliated party is comparable to the price at which sales are made to parties not affiliated with the exporter or producer, *i.e.*, sales at arm's-length prices. See 19 CFR 351.403(c). Sales to affiliated customers for consumption in the home market that were determined not to be at arm's-length prices were excluded from our analysis. Thai Plastic Bags reported sales of the foreign like product to affiliated end-users and resellers. To test whether these sales were made at arm's-length prices, the Department compared the prices of sales of comparable merchandise to affiliated and unaffiliated customers, net of all rebates, movement charges, direct selling expenses, and packing. Pursuant to 19 CFR 351.403(c) and in accordance with the Department's practice, when the prices charged to an affiliated party were, on average, between 98 and 102 percent of the prices charged to unaffiliated parties for merchandise comparable to that sold to the affiliated party, we determined that the sales to the affiliated party were at arm's length. See *Antidumping Proceedings: Affiliated Party Sales in the Ordinary Course of Trade*, 67 FR 69186, 69187 (November 15, 2002). We included in our normal-value calculations those sales to affiliated parties that were made at arm's-length prices.

3. Cost-of-Production Analysis

The petitioners submitted evidence on October 16, 2003, that suggested that Thai Plastic Bags sold the foreign like product at prices that may have been below the cost of production (COP) as provided by section 773(b)(2)(A)(I) of the Act. Based on this evidence, we determined that we had reasonable grounds to believe or suspect that sales of the foreign like product under consideration for the determination of normal value in this investigation may have been made at prices below the COP. Accordingly, pursuant to section 773(b)(1) of the Act, we conducted a COP investigation of sales by Thai Plastic Bags in the home market.

In accordance with section 773(b)(3) of the Act, we calculated the COP based on the sum of the costs of materials and fabrication employed in producing the foreign like product, the selling, general, and administrative (SG&A) expenses, and all costs and expenses incidental to packing the merchandise. In our COP analysis, we relied upon the COP information provided by Thai Plastic Bags in its questionnaire response except for the following adjustments:

1. We adjusted the reported cost database for one of the three combined companies for an unreconciled difference shown in the reconciliation of the financial statements to the POI reported costs.

2. We adjusted the cost of inputs purchased from affiliates to the higher of transfer price, market price, or the affiliate's COP in accordance with section 773(f)(3) of the Act.

3. We adjusted the general and administrative (G&A) and financial-expense rates for mathematical errors.

After calculating the COP, in accordance with section 773(b)(1) of the Act, we tested whether home-market sales of the foreign like product were made at prices below the COP within an extended period of time in substantial quantities and whether such prices permitted the recovery of all costs within a reasonable period of time. We compared model-specific COPs to the reported home-market prices less any applicable movement charges, discounts, and rebates. See *Import Administration Policy Bulletin*, Number 94.1 of March 25, 1994, for further information on this test.

Pursuant to section 773(b)(2)(C) of the Act, when less than 20 percent of the respondent's sales of a given product were at prices less than the COP, we did not disregard any below-cost sales of that product because the below-cost sales were not made in substantial quantities within an extended period of time. When 20 percent or more of the respondent's sales of a given product during the POI were at prices less than the COP, we disregarded the below-cost sales because they were made in substantial quantities within an extended period of time pursuant to sections 773(b)(2)(B) and (C) of the Act and because, based on comparisons of prices to weighted-average COPs for the POI, we determined that these sales were at prices which would not permit recovery of all costs within a reasonable period of time in accordance with section 773(b)(2)(D) of the Act. Based on this test, we disregarded below-cost sales with respect to Thai Plastic Bags. See the Thai Plastic Bags Analysis Memorandum from the case analyst to the file dated January 16, 2004, for additional information.

4. Calculation of Normal Value

We compared U.S. sales with sales of the foreign like product in the home market on the basis of the physical characteristics described under Fair Value Comparisons above. Wherever we were unable to match a U.S. model to identical merchandise sold in the home market, we selected the most similar model of subject merchandise in the home market as the foreign like product.

Home-market prices were based on the packed, ex-factory, or delivered prices to affiliated or unaffiliated purchasers. When applicable, we made adjustments for differences in packing and for movement expenses in accordance with sections 773(a)(6)(A) and (B) of the Act. We also made adjustments for differences in cost attributable to differences in physical characteristics of the merchandise pursuant to section 773(a)(6)(C)(ii) of the Act and for differences in circumstances of sale in accordance with section 773(a)(6)(C)(iii) of the Act and 19 CFR 351.410. For comparisons to EP, we made circumstances-of-sale adjustments by deducting home-market direct selling expenses from and adding U.S. direct selling expenses to normal value. For comparisons to CEP, we made circumstances-of-sale adjustments by deducting home-market direct selling expenses from normal value. We also made adjustments, when applicable, for home-market indirect selling expenses to offset U.S. commissions in EP and CEP calculations.

In accordance with section 773(a)(1)(B)(I) of the Act, we based normal value, to the extent practicable, on sales at the same level of trade as the EP or CEP. If normal value was calculated at a different level of trade, we made an adjustment, if appropriate and if possible, in accordance with section 773(a)(7) of the Act. See the Level of Trade section below.

In accordance with section 773(a)(4) of the Act, we used constructed value as the basis for normal value when there

were no usable sales of the foreign like product in the comparison market. We calculated constructed value in accordance with section 773(e) of the Act, which states that constructed value shall be based on the sum of each respondent's cost of materials and fabrication for the subject merchandise, plus amounts for SG&A, profit, and U.S. packing costs. For Thai Plastic Bags and Universal, we relied on the submitted constructed-value information except for the following adjustments:

Thai Plastic Bags

See adjustments in COP section above.

Universal

1. We imputed an interest expense amount for a certain loan. For the preliminary determination, we used an interest rate in Thailand, as published by the International Monetary Fund, to calculate the imputed interest expense. For further information, see Memorandum from Nancy Decker through Theresa Caherty to Neal Halper, "Universal Polybag Co., Ltd. Constructed Value Calculation Adjustments for the Preliminary Determination" dated January 16, 2004 (Universal Preliminary Cost Memorandum).
2. We increased the reported costs to include unreconciled differences in the reconciliations of the financial statements to financial accounting system and of the financial accounting system to the reported costs for the POI.

In accordance with section 773(e)(2)(A) of the Act, for Thai Plastic Bags, we based SG&A expenses and profit on the amounts incurred and realized by Thai Plastic Bags in connection with the production and sale of the foreign like product in the ordinary course of trade for consumption in the home market.

Because Universal had no viable home or third-country market during the POI, the Department could not determine selling expenses and profit under section 773(e)(2)(A) of the Act, which requires sales by the respondent in question in the ordinary course of trade in a comparison market. In situations where we cannot calculate selling expenses and profit under section 773(e)(2)(A), section 773(e)(2)(B) of the Act sets forth three alternatives. The SAA states at 840 that "section 773(e)(2)(B) does not establish a hierarchy or preference among these alternative methods." Section 773(e)(2)(B)(i) of the Act specifies that SG&A and profit may be calculated based on "actual amounts incurred by the specific exporter or producer . . . on merchandise in the same general category" as subject merchandise. Universal does not produce any products other than the subject merchandise. Alternative (ii) of section 773(e)(2)(B) provides that SG&A and profit may be calculated based on "the weighted average of the actual amounts incurred and realized by {other} exporters or producers that are subject to the investigation." Because there is only one other respondent in this case, however, the Department cannot calculate selling expenses, G&A expenses, and profit based on section 773(e)(2)(B)(ii) of the Act because it would reveal the business proprietary information of the other respondent, Thai Plastic Bags. While Universal has suggested that the Department can use the combined data of the three companies that form the respondent Thai Plastic Bags, the Department considers Thai Plastic Bags to be one entity for purposes of this investigation and, therefore, to use the information of the three combined companies is to reveal that respondent's proprietary information.

Therefore, the only statutory option available to the Department to calculate the selling expenses, G&A expenses, and profit for constructed value for Universal is under section 773(e)(2)(B)(iii). This section allows the Department to use "any other reasonable method" to calculate selling expenses, G&A expenses, and profit for constructed value, provided that the amount for profit does not "exceed the amount normally realized by exporters or producers . . . in connection with the sale, for consumption in the foreign country, of merchandise that is in the same general category of products as the subject merchandise." On January 6, 2004, the petitioners provided 2001 financial-statement information on another Thai producer, Thantawan Industry Public Co. Ltd. (TIPC), of plastic products including PRCBs. This information provides expense and profit data for TIPC. Lacking more suitable information, we calculated constructed value selling expenses for Universal based on TIPC's reported selling and administrative expenses. Selling expenses are not separated in TIPC's financial statement. Therefore, we deducted Universal's reported G&A rate from TIPC's SG&A rate because we have no reason to believe that Universal's reported G&A expenses are unreliable.

We calculated amounts for constructed-value profit based on the profit earned by TIPC. While TIPC produces other merchandise in addition to the subject merchandise, its financial information shows that more than 70 percent of its revenue comes from subject merchandise. Because we do not have any further information regarding profit on the same general category of merchandise other than that of the one other respondent in this case, we are not able to quantify the "profit cap" described in section 773(e)(2)(B)(iii) of the Act without revealing proprietary information of Thai Plastic Bags, as discussed above. The SAA anticipates such situations and directs that, where the Department cannot calculate a profit cap, the Department may apply section 773(e)(2)(B)(iii) of the Act on the basis of the facts available. Therefore, we have not calculated a "profit cap" for the instant determination. As neutral facts available, we have used TIPC's profit rate of 10.43 percent in calculating constructed value as a reasonable surrogate for Universal's home-market profit. See Universal Preliminary Cost Memorandum.

When appropriate, we made adjustments to constructed value in accordance with section 773(a)(8) of the Act and 19 CFR 351.410 for circumstances-of-sale differences and level-of-trade differences. For comparisons to EP, we made circumstances-of-sale adjustments by deducting home-market direct selling expenses from and adding U.S. direct selling expenses to normal value. For comparisons to CEP, we made circumstances-of-sale adjustments by deducting home-market direct selling expenses from normal value. We also made adjustments, when applicable, for home-market indirect selling expenses to offset U.S. commissions in EP and CEP comparisons.

Level of Trade

To the extent practicable, we determined normal value for sales at the same level of trade as the U.S. sales (either EP or CEP). When there were no sales at the same level of trade, we compared U.S. sales to home-market sales at a different level of trade. The normal-value level of trade is that of the starting-price sales in the home market. When normal value is based on constructed value, the level of trade is that of the sales from which we derived SG&A and profit. To determine whether home-market sales are at a different level of trade than U.S. sales, we examined stages in the marketing process and selling functions along the chain of distribution between the producer and the unaffiliated customer. If the comparison-market sales were at a different level of trade from that of a U.S. sale and the difference affected

price comparability, as manifested in a pattern of consistent price differences between the sales on which normal value is based and comparison-market sales at the level of trade of the export transaction, we made a level-of-trade adjustment under section 773(a)(7)(A) of the Act. See, *e.g., Notice of Final Determination of Sales at Less Than Fair Value: Certain Cut-to-Length Carbon Steel Plate from South Africa*, 62 FR 61731 (November 19, 1997).

For Universal, because there was no viable home or third market and all sales in the United States were CEP sales, no level-of-trade comparison was necessary. For Thai Plastic Bags, with respect to EP, we found the EP level of trade to be the same as the home-market level of trade and, consequently, were able to match sales at the same level of trade. With respect to Thai Plastic Bags' CEP sales, because we deduct the expense of the selling activities performed by the U.S. affiliate under section 772(d) of the Act, we have concluded that CEP sales constitute a different level of trade from the home-market level of trade. Consequently, we could not match to sales at the same level of trade in the home market nor could we determine a level-of-trade adjustment based on Thai Plastic Bags' home-market sales of the foreign like product. Furthermore, we have no other information that provides an appropriate basis for determining a level-of-trade adjustment. Therefore, we have granted a CEP offset for all such sales. The CEP offset is the sum of indirect selling expenses incurred on the home-market sale up to the amount of indirect selling expenses incurred on the U.S. sale. See the Thai Plastic Bags Analysis Memorandum from the case analyst to the file dated January 16, 2004, for more information on the level-of-trade decision.

Currency Conversion

We made currency conversions into U.S. dollars in accordance with section 773A(a) of the Act based on the exchange rates in effect on the dates of the U.S. sales as certified by the Federal Reserve Bank.

Verification

As provided in section 782(i) of the Act, we will verify the information upon which we will rely in making our final determination.

Suspension of Liquidation

In accordance with section 733(d)(2)(A) of the Act, we are directing CBP to suspend liquidation of all imports of subject merchandise from Thailand that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the **Federal Register**. We will instruct CBP to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the normal value exceeds the EP or CEP, as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice. The weighted-average dumping margins are as follows:

Exporter/manufacturer	Weighted-average percent margin
Thai Plastic Bags	2.84
Universal	34.76
Champion Paper Polybags Ltd.	122.88
TRC Polypack	122.88
Zip-Pac Co., Ltd.	122.88
All Others	11.54

Pursuant to section 735(c)(5)(A) of the Act, we have excluded from the calculation of the all-others rate margins which are zero or *de mimimis* or determined entirely on facts available.

The Department will disclose calculations performed within five days of publication of this notice to parties in this proceeding in accordance with 19 CFR 351.224(b).

International Trade Commission Notification

In accordance with section 733(f) of the Act, we have notified the ITC of our determination of sales at LTFV. Section 735(b)(2) requires that the ITC make a final determination before the later of 120 days after the date of the Department's preliminary determination or 45 days after the Department's final determination whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports, or sales (or the likelihood of sales) for importation, of the subject merchandise. Because we have postponed the deadline for our final determination to 135 days from the date of the publication of this preliminary determination, the ITC will make its final determination within 45 days of our final determination.

Public Comment

Case briefs or other written comments may be submitted to the Assistant Secretary for Import Administration no later than seven days after the date of the final verification report issued in this proceeding and rebuttal briefs, limited to issues raised in case briefs, no later than five days after the deadline date for case briefs. A list of authorities used and an executive summary of issues should accompany any briefs submitted to the Department. This summary should be limited to five pages total, including footnotes. In accordance with section 774 of the Act, we will hold a public hearing, if requested, to afford interested parties an opportunity to comment on arguments raised in case or rebuttal briefs. Tentatively, any hearing will be held three days after the deadline for submission of the rebuttal briefs at the U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230, at a time and location to be determined. Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date. Interested parties who wish to request a hearing, or to participate if one is requested, must submit a written request to the Assistant Secretary for Import Administration, U.S. Department of Commerce, Room 1870, within 30 days of the date of publication of this notice. See 19 CFR 351.310(c). Requests should contain (1) the party's name, address, and telephone number, (2) the number of participants, and (3) a list of the issues to be discussed. At the hearing, each party may make an affirmative presentation only on issues raised in that party's case brief and may make rebuttal presentations only on arguments included in that party's rebuttal brief. See 19 CFR 351.310(c).

We will make our final determination no later than 135 days after the date of publication of the preliminary determination.

This determination is issued and published in accordance with sections 733(f) and 777(i)(1) of the Act.

Dated: January 16, 2004.

James J. Jochum,

Assistant Secretary for Import Administration.

[FR Doc. 04–1575 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

International Trade Administration

[A–557–813]

Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Polyethylene Retail Carrier Bags from Malaysia

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: January 26, 2004.

SUMMARY: We preliminarily determine that polyethylene retail carrier bags from Malaysia are being, or are likely to be, sold in the United States at less than fair value, as provided in section 733 of the Tariff Act of 1930, as amended. Interested parties are invited to comment on this preliminary determination. We will make our final determination not later than 135 days after the date of publication of this preliminary determination.

FOR FURTHER INFORMATION CONTACT: J. David Dirstine (Bee Lian Plastic Industries Sdn. Bhd.) or Catherine Cartsos (Teong Chuan Plastic and Timber Sdn. Bhd.), Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–4033 or (202) 482–1757, respectively.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

The Department of Commerce (the Department) has conducted this antidumping investigation in accordance with section 733 of the Tariff Act of 1930, as amended (the Act). We preliminarily determine that polyethylene retail carrier bags (PRCBs) from Malaysia are being, or are likely to be, sold in the United States at less than fair value, as provided in section 733 of the Act. The estimated margins of sales at less than fair value are shown in the "Suspension of Liquidation" section of this notice.

Case History

We initiated this investigation on July 10, 2003. See *Initiation of Antidumping Duty Investigations: Polyethylene Retail Carrier Bags from The People's Republic of China, Malaysia, and Thailand*, 68 FR 42002 (July 16, 2003) (*Initiation Notice*). Since the initiation of this investigation the following events have occurred.

On July 14, 2003, we issued a letter to interested parties in this investigation providing an opportunity to comment on the characteristics we should use in identifying the different models the respondents sold in the United States. The petitioners submitted comments on July 28, 2003. No other party submitted comments. After reviewing the parties' comments, we have adopted the characteristics and hierarchy as explained in the "Fair Value Comparisons" section below.

On July 14, 2003, we sent a partial Section A questionnaire to all of the producers/exporters named in the petition and to the producers/exporters who comprise the top 80 percent of producers/exporters in terms of quantity (in thousands of units) of the subject merchandise shipped to the United States according to data from U.S. Customs and Border Protection (CBP). We requested information on the quantity and value of merchandise sold by these producers and exporters in order to identify potential respondents in the investigation. We received responses from 17 firms which reported exports of subject merchandise during the period of investigation (POI). We did not receive responses from two firms in Malaysia, Branpak Industries Sdn. Bhd. and Gants Pac Industries, although the record indicates that these companies received our July 14, 2003, questionnaire. On August 1, 2003, we sent a letter to these firms to reiterate our request for a response to the July 14, 2003, questionnaire. We received no response from these firms.

On August 4, 2003, the U.S. International Trade Commission (ITC) issued its affirmative preliminary determination that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of the subject merchandise from the People's Republic of China, Malaysia, and Thailand. See *Polyethylene Retail Carrier Bags From China, Malaysia, and Thailand*, 68 FR 47609 (August 11, 2003).

On August 14, 2003, the Department selected the following four mandatory respondents: Bee Lian Plastic Industries Sdn. Bhd. (Bee Lian), Sido Bangun Sdn. Bhd., Zhin Hin/Chin Hin Plastic Manufacturer Sdn. Bhd., Teong Chuan Plastic and Timber Sdn. Bhd. (Teong Chuan). See Memorandum from Laurie Parkhill to Jeff May regarding selection of respondents dated August 14, 2003.

On August 14, 2003, the Department issued its full antidumping questionnaire to the mandatory respondents. Only Bee Lian and Teong Chuan responded to our questionnaire. On November 21, and November 28, 2003, we issued supplemental questionnaires to Bee Lian and Teong Chuan, respectively. Bee Lian submitted its supplemental questionnaire response to the Department on December 5, 2003. Although Teong Chuan submitted a supplemental questionnaire response on November 28, 2003, it was neither fully responsive to our questionnaire nor filed in proper form pursuant to 19 CFR 351.303 and 351.304.

On October 16, 2003, the petitioners requested that the Department postpone its preliminary determination by 50 days. In accordance with section 733(c)(1)(A) of the Act, we postponed our preliminary determination by 50 days. See Notice of Postponement of Preliminary Determinations in Antidumping Duty Investigations: Polyethylene Retail Carrier Bags From the People's Republic of China, Malaysia, and Thailand, 68 FR 61656 (October 29, 2003).

Postponement of Final Determination and Extension of Provisional Measures

Section 735(a)(2) of the Act provides that a final determination may be postponed until not later than 135 days after the date of the publication of the preliminary determination if, in the event of an affirmative preliminary determination, a request for such postponement is made by exporters who account for a significant proportion of exports of the subject merchandise. In accordance with 19 CFR 351.210(e)(2), the Department requires that exporters requesting postponement of the final determination must also request an extension of the provisional measures in section 733(d) of the Act from a four-month period until not more than six months. We received a request to postpone the final determination from Bee Lian, dated November 20, 2003. In its request, the respondent consented to the extension of provisional measures to no longer than six months. Since this preliminary determination is affirmative, the request for postponement is made by an exporter that accounts for a significant proportion of exports of the subject merchandise, and there is no compelling reason to deny the respondent's request, we have extended the deadline for issuance of the final determination until the 135th day after the date of publication of this preliminary determination in the **Federal Register** and have extended provisional measures to no longer than six months.

Period of Investigation

The POI corresponds to the four most recent fiscal quarters prior to the filing of the petition, i.e., April 1, 2002, through March 31, 2003.

Scope Comments

In accordance with the preamble to our regulations (see *Antidumping Duties; Countervailing Duties*, 62 FR 27296, 27323 (May 19, 1997)), we set aside a period of time for parties to raise issues regarding product coverage and encouraged all parties to submit comments within 20 calendar days of publication of the *Initiation Notice* (see 66 FR 33048–33049). Interested parties submitted such comments by August 5, 2003.On August 4, 2003, Regal Import Packaging, an importer of PRCBs,

requested that four- dimensional bags, bags with handles made of a different material than the bag itself, and custom-printed bag orders of 50 thousand bags or less be excluded from the scope of the investigation. On August 12, 2003, the Polyethylene Retail Carrier Bag Committee and its individual members, PCL Packaging, Inc., Sonoco Products Company, Superbag Corp., Vanguard Plastics, Inc., and Inteplast Group, Ltd. (collectively, "the petitioners"), requested that the investigation not exclude those products specified by Regal Import Packaging. We have not adopted the changes in the scope of the investigation requested by Regal Import Packaging because we find the petitioners have placed sufficient evidence on the record to show that the bags in question are manufactured in the United States and fall within the scope of the petition.

Scope of Investigation

The merchandise subject to this investigation is polyethylene retail carrier bags, which may be referred to as t-shirt sacks, merchandise bags, grocery bags, or checkout bags. The subject merchandise is defined as non-sealable sacks and bags with handles (including drawstrings), without zippers or integral extruded closures, with or without gussets, with or without printing, of polyethylene film having a thickness no greater than .035 inch (0.889 mm) and no less than .00035 inch (0.00889 mm), and with no length or width shorter than 6 inches (15.24 cm) or longer than 40 inches (101.6 cm). The depth of the bag may be shorter than 6 inches but not longer than 40 inches (101.6 cm).

PRCBs are typically provided without any consumer packaging and free of charge by retail establishments (*e.g.*, grocery, drug, convenience, department, specialty retail, discount stores, and restaurants) to their customers to package and carry their purchased products. The scope of the investigation excludes (1) polyethylene bags that are not printed with logos or store names and that are closeable with drawstrings made of polyethylene film and (2) polyethylene bags that are packed in consumer packaging with printing that refers to specific end-uses other than packaging and carrying merchandise from retail establishments (*e.g.*, garbage bags, lawn bags, trash-can liners).

Imports of the subject merchandise are classified under statistical category 3923.21.0090 of the *Harmonized Tariff Schedule of the United States* (HTSUS). This subheading also covers products that are outside this investigation. Furthermore, although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

Selection of Respondents

Section 777A(c)(1) of the Act directs the Department to calculate individual dumping margins for each known exporter and producer of the subject merchandise. Section 777A(c)(2) of the Act gives the Department discretion, however, when faced with a large number of exporters/producers, to limit its examination to a reasonable number of such companies if it is not practicable to examine all companies. There is no data on the record that indicates conclusively the number of producers/exporters from Malaysia that exported the subject merchandise to the United States during the POI.

On July 14, 2003, the Department sent partial section A questionnaires addressed to all producers/exporters of the subject merchandise listed in the petition. We received responses from a number of firms. As discussed below, we did not receive responses from two companies. Based on the responses we received to our July 14, 2003, questionnaire, we selected Bee Lian, Sido Bangun, Zhin Hin/Chin Hin, and Teong Chuan as mandatory respondents. See Memorandum from Laurie Parkhill to Jeff May dated August 14, 2003.

Use of Facts Otherwise Available

Section 776(a)(2) of the Act provides that, if an interested party withholds information that has been requested by the Department, fails to provide such information in a timely manner or in the form or manner requested, significantly impedes a proceeding under the antidumping statute, or provides such information but the information cannot be verified, the Department shall, subject to sections 782(d) and (e) of the Act, use facts otherwise available in reaching the applicable determination. Pursuant to section 782(e) of the Act, the Department shall not decline to consider submitted information if that information is necessary to the determination but does not meet all of the requirements established by the Department provided that all of the following requirements are met: (1) the information is submitted by the established deadline; (2) the information can be verified; (3) the information is not so incomplete that it cannot serve as a reliable basis for reaching the applicable determination; (4) the interested party has demonstrated that it acted to the best of its ability; (5) the information can be used without undue difficulties.

Section 776(a)(2)(B) of the Act requires the Department to use facts available when a party does not provide the Department with information by the established deadline or in the form and manner requested by the Department. Section 776(b) of the Act provides that, if the Department finds that an interested party "has failed to cooperate by not acting to the best of its ability to comply with a request for information," the Department may use information that is adverse to the interests of that party as facts otherwise available.

As explained above, Branpak Industries Sdn. Bhd. and Gants Pac Industries did not respond to our July 14, 2003, request for information. Furthermore, Sido Bangun and Zhin Hin/Chin Hin did not respond to our August 14, 2003, antidumping questionnaire.

Pursuant to section 776(a) of the Act, in reaching our preliminary determination, we have used total facts available for Branpak Industries Sdn. Bhd. and Gants Pac Industries because the firms did not provide the data we needed to decide whether they should be selected as mandatory respondents. Also, we have used total facts available for Sido Bangun and Zhin Hin/Chin Hin because these firms did not respond to our August 14, 2003, antidumping questionnaire as mandatory respondents. Also, because all these companies failed to respond, wholly or in part, to our request for information, we have found that they failed to cooperate to the best of their ability. Therefore, pursuant to section 776(b) of the Act, we have used an adverse inference in selecting from the facts available for the margins for these companies. See Memorandum from Laurie Parkhill to Jeffrey May dated January 16, 2004, "Determination to Apply Adverse Facts Available and the Calculation of the Adverse Facts-Available Rate" (AFA Memo).

Regarding Teong Chuan, we found that it did not meet the filing requirements of our regulations in regards to most of its questionnaire responses and subsequent re-submissions, resulting in our rejection of the majority of its submissions. Despite our repeated attempts to allow Teong Chuan to correct for the procedural and substantive deficiencies in its response, the firm did not do so. The information Teong Chuan provided which remains on the record is inadequate and does not allow us to calculate a dumping margin. For example, we have no cost-of-production (COP) information necessary to test whether Teong Chuan made sales in the home market at below-cost prices or to

calculate constructed value in the absence of usable home-market sales. In effect, Teong Chuan did not respond to our questionnaires. See AFA Memo for further discussion. Therefore, pursuant to section 776(a) of the Act, in reaching our preliminary determination, we have used total facts available for Teong Chuan because crucial information necessary to calculate a margin is not on the record.

Further, we find that Teong Chuan did not cooperate to the best of its ability because it did not seek our guidance and clarifications in its attempts to provide us with acceptable responses and it ignored instructions we had given the company previously. Therefore, pursuant to section 776(b) of the Act, we have used an adverse inference in selecting from the facts available for the margins for Teong Chuan. See AFA Memo.

As adverse facts available, we have examined the margins that the petitioners alleged in their June 25, 2003, response to our June 25, 2003, letter requesting supplemental information with respect to the petition and selected the higher of the two margins; that rate is 101.74 percent.

Section 776(c) of the Act provides that the Department shall, to the extent practicable, corroborate secondary information used for facts available by reviewing independent sources reasonably at its disposal. Information from the petitioners constitutes secondary information. The Statement of Administrative Action accompanying the Uruguay Round Agreements Act, H.R. Doc. 103–316, Vol. 1, at 870 (1994) (SAA), provides that the word "corroborate" means that the Department will satisfy itself that the secondary information to be used has probative value. As explained in *Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from Japan, and Tapered Roller Bearings Four Inches or Less in Outside Diameter, and Components Thereof, from Japan: Preliminary Results of Antidumping Duty Administrative Reviews and Partial Termination of Administrative Review*, 61 FR 57391, 57392 (November 6, 1996) (*Tapered Roller Bearings and Parts Thereof from Japan*), in order to corroborate secondary information, the Department will examine, to the extent practicable, the reliability and relevance of the information used.

With respect to the relevance aspect of corroboration, however, the Department will consider information reasonably at its disposal as to whether there are circumstances that would render a margin not relevant. Where circumstances indicate that the selected margin is not appropriate as adverse facts available, the Department will disregard the margin and determine an appropriate margin. See *Fresh Cut Flowers from Mexico; Final Results of Antidumping Duty Administrative Review*, 61 FR 6812 (February 22, 1996), where the Department disregarded the highest dumping margin as best information available because the margin was based on another company's uncharacteristic business expense resulting in an unusually high margin. Further, in accordance with *F.LII De Cecco Di Filippo Fara S. Martino S.p.A. v. United States*, 216 F.3d 1027 (Fed. Cir. June 16, 2000), we also examine whether information on the record would support the selected rates as reasonable facts available.

Our analysis of the petitioners' methodology for calculating the export price and normal value in the petition is discussed in the initiation notice. See *Initiation Notice*, 68 FR at 42003–4. To corroborate the petitioners' export-price and normal-value calculations, we compared the prices and expenses used by the petitioners to the source documents upon which the petitioners' methodology was based.

As discussed in the AFA Memo, we found that the export-price and normal-value information in the supplemental petition was reasonable and, therefore, we preliminarily determine that the information has probative value. Accordingly, we find that the highest margin based on that information, 101.74 percent, is corroborated within the meaning of section 776(c) of the Act.

Furthermore, there is no information on the record that demonstrates that the rate we have selected is an inappropriate total adverse facts-available rate for the companies in question. On the contrary, our existing record, which includes a Malaysian company's quotation for a commonly produced type of PRCB, a freight quotation, and a specification sheet for a purchase- order inquiry, supports the use of this rate as the best indication of the export price and dumping margin for these firms. Therefore, we consider the selected rate to have probative value with respect to the firms in question and to reflect the appropriate adverse inference.

Accordingly, for the preliminary determination, we have applied a margin of 101.74 percent to Branpak Industries Sdn. Bhd., Gants Pac Industries, Sido Bangun, Zhin Hin/Chin Hin, and Teong Chuan. Because these are preliminary margins, the Department will consider all margins on the record at the time of the final determination for the purpose of determining the most appropriate final margins for these companies.

Fair Value Comparisons

To determine whether sales of PRCBs to the United States by Bee Lian in this investigation were made at less than fair value, we compared export price to normal value, as described in the "U.S. Price" and "Normal Value" sections of this notice. In accordance with section 777A(d)(1)(A)(I) of the Act, we calculated weighted-average export prices.

In making the product comparisons, we matched foreign like products based on the physical characteristics reported by the respondents in the following order of importance: (1) quality, (2) bag type, (3) length, (4) width, (5) gusset, (6) thickness, (7) percent of high density polyethylene resin, (8) percent of low density polyethylene resin, (9) percent of low linear density polyethylene resin, (10) percent of color concentrate, (11) percent of ink coverage, (12) number of ink colors, (13) number of sides printed.

U.S. Price

In accordance with section 772(a) of the Act, we used export price for Bee Lian because the subject merchandise was sold directly to unaffiliated customers in the United States prior to importation. In accordance with section 777A(d)(1)(A)(i) of the Act, we compared POI-wide weighted-average export prices to the weighted-average normal values.We calculated export price based on the packed F.O.B., C.I.F., or delivered price to unaffiliated purchasers in, or for exportation to, the United States. We made deductions, as appropriate, for discounts and rebates. We also made deductions for any movement expenses in accordance with section 772(c)(2)(A) of the Act.

Normal Value

1. Home-Market Viability

Bee Lian did not make sales of the foreign like product for consumption in its home market. Therefore, in accordance with section 773(a)(1)(B)(ii) of the Act, we based normal value on the prices at which the foreign like product was first sold for consumption in a country other than the exporting country and the United States. Specifically, we based normal value on the prices at which the foreign like product is sold for consumption in the United Kingdom. The aggregate quantity of the foreign like product sold by Bee Lian in the United Kingdom was, pursuant to section 773(a)(1)(C) of the Act, five percent or more of the

aggregate quantity of the subject merchandise sold in the United States.

2. Affiliated-Party Transactions

Bee Lian's production unit sold the foreign like product and subject merchandise to a wholly owned affiliate located in Singapore that acted as the sales arm of Bee Lian. Bee Lian reported the prices of its affiliate to the first unrelated customers in the United States and the United Kingdom.

3. Cost-of-Production Analysis

The petitioners submitted evidence on October 16, 2003, alleging that Bee Lian sold the foreign like product in the comparison market at prices that may have been below COP as provided by section 773(b)(2)(A)(i) of the Act. Based on this evidence, we determined that we had reasonable grounds to believe or suspect that sales of the foreign like product under consideration for the determination of normal value in this investigation may have been made at prices below the COP. Accordingly, pursuant to section 773(b)(1) of the Act, we conducted a COP investigation of sales by Bee Lian in the comparison market.

In accordance with section 773(b)(3) of the Act, we calculated the COP based on the sum of the costs of materials and fabrication employed in producing the foreign like product, the selling, general, and administrative (SG&A) expenses, and all costs and expenses incidental to packing the merchandise. In our COP analysis, we used the comparison-market sales and COP information provided by Bee Lian in its questionnaire responses, except we excluded the claimed offset to the company's reported cost of manufacturing for the sale of waste. For further discussion of this adjustment, see the cost memorandum from Mark Todd to Neal Halper, "Cost of Production and Constructed Value Calculation Adjustments for the Preliminary Determination," dated January 16, 2004.

After calculating the COP, in accordance with section 773(b)(1) of the Act, we tested whether comparison-market sales of the foreign like product were made at prices below the COP within an extended period of time in substantial quantities and whether such prices permitted the recovery of all costs within a reasonable period of time. We compared model-specific COPs to the reported comparison-market prices less any applicable movement charges, discounts, and rebates.

Pursuant to section 773(b)(2)(C) of the Act, when less than 20 percent of the respondent's sales of a given product were at prices less than the COP, we did not disregard any below-cost sales of that product because the below-cost sales were not made in substantial quantities within an extended period of time. When 20 percent or more of the respondent's sales of a given product during the POI were at prices less than the COP, we disregarded the below-cost sales because they were made in substantial quantities within an extended period of time pursuant to sections 773(b)(2)(B) and (C) of the Act and, based on comparisons of prices to weighted-average COPs for the POI, we determined that these sales were at prices which would not permit recovery of all costs within a reasonable period of time in accordance with section 773(b)(2)(D) of the Act. Based on this test, we disregarded certain sales because they were below cost. We used the remaining third-country sales to calculate normal value.

4. Calculation of Normal Value

We compared U.S. sales with sales of the foreign like product in the comparison market on the basis of the physical characteristics described under Fair Value Comparisons above. Wherever we were unable to match a U.S. model to identical merchandise sold in the comparison market, we selected the most similar model of subject merchandise in the comparison market as the foreign like product.

Comparison-market prices were based on the packed, ex-factory, or delivered prices to affiliated or unaffiliated purchasers. When applicable, we made adjustments for differences in packing and for movement expenses in accordance with sections 773(a)(6)(A) and (B) of the Act. We also made adjustments for differences in cost attributable to differences in physical characteristics of the merchandise pursuant to section 773(a)(6)(C)(ii) of the Act and for differences in circumstances of sale in accordance with section 773(a)(6)(C)(iii) of the Act and 19 CFR 351.410. We made circumstances-of-sale adjustments by deducting comparison-market direct selling expenses from, and adding U.S. direct selling expenses to, normal value. We also made adjustments, where applicable, for comparison-market indirect selling expenses to offset U.S. commissions.

In accordance with section 773(a)(1)(B)(ii) of the Act, we based normal value, to the extent practicable, on sales at the same level of trade as the export price. If normal value was calculated at a different level of trade, we made an adjustment, if appropriate and if possible, in accordance with section 773(a)(7) of the Act. See the Level of Trade section below.

In accordance with section 773(a)(4) of the Act, we used constructed value as the basis for normal value when there were no usable sales of the foreign like product in the comparison market. In accordance with section 773(e) of the Act, we calculated constructed value based on the sum of Bee Lian's cost of materials and fabrication for the foreign like product, plus amounts for SG&A, profit, and U.S. packing costs. We relied on the submitted constructed-value information for Bee Lian except as adjusted for the sale of waste (see above).

Where appropriate, we made adjustments to constructed value in accordance with section 773(a)(8) of the Act and 19 CFR 351.410 for circumstances-of-sale differences and level-of-trade differences. We made circumstances-of-sale adjustments by deducting comparison-market direct selling expenses from, and adding U.S. direct selling expenses to, normal value. We also made adjustments, when applicable, for comparison-market indirect selling expenses to offset U.S. commissions.

Level of Trade

To the extent practicable, we determined normal value for sales at the same level of trade as the U.S. sales. When there were no sales at the same level of trade, we compared U.S. sales to comparison-market sales at a different level of trade. The normal-value level of trade is that of the starting-price sales in the comparison market. When normal value is based on constructed value, the level of trade is that of the sales from which we derived SG&A and profit. To determine whether comparison-market sales are at a different level of trade than U.S. sales, we examined stages in the marketing process and selling functions along the chain of distribution between the producer and the unaffiliated customer. If the comparison-market sales were at a different level of trade from that of a U.S. sale and the difference affected price comparability, as manifested in a pattern of consistent price differences between the sales on which normal value is based and comparison-market sales at the level of trade of the export transaction, we made a level-of-trade adjustment under section 773(a)(7)(A) of the Act. See, *e.g., Notice of Final Determination of Sales at Less Than Fair Value: Certain Cut-to-Length Carbon Steel Plate from South Africa*, 62 FR 61731, 61732 (November 19, 1997).

Currency Conversion

We made currency conversions into U.S. dollars in accordance with section 773A(a) of the Act based on the exchange rates in effect on the dates of the U.S. sales as certified by the Federal Reserve Bank.

Verification

As provided in section 782(i) of the Act, we will verify the information upon which we will rely in making our final determination.

Suspension of Liquidation

In accordance with section 733(d)(2) of the Act, we are directing CBP to suspend liquidation of all imports of subject merchandise from Malaysia (except for entries of Bee Lian because this company has a *de minimis* margin) that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the **Federal Register**. We will instruct CBP to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the normal value exceeds the export price, as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice. The weighted-average dumping margins are as follows:

Exporter or Producer	Weighted-average percent margin
Bee Lian Plastic Industries Sdn. Bhd.	00.14
Teong Chuan Plastic and Timber Sdn. Bhd	101.74
Brandpak Industries Sdn. Bhd	101.74
Gants Pac Industries	101.74
Sido Bangun Sdn.Bhd.	101.74
Zhin Hin/Chin Hin Plastic Manufacturer Sdn. Bhd.	101.74
All Others	84.81

All companies that we examined have either a de minimis margin or rates based on total adverse facts available. Therefore, for purposes of determining the all-others rate and pursuant to section 735(c)(5)(B) of the Act, we have calculated a simple average of the six margin rates we have determined in the investigation. See All-Others Rate Calculation Memorandum from Laurie Parkhill to Jeffrey May dated January 16, 2004.The Department will disclose calculations performed within five days of publication of this notice to parties in this proceeding in accordance with 19 CFR 351.224(b).

International Trade Commission Notification

In accordance with section 733(f) of the Act, we have notified the ITC of our determination of sales at LTFV. Section 735(b)(2) of the Act requires that the ITC make a final determination before the later of 120 days after the date of the Department's preliminary determination or 45 days after the Department's final determination whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports, or sales (or the likelihood of sales) for importation, of the subject merchandise. Because we have postponed the deadline for our final determination to 135 days from the date of publication of this preliminary determination, the ITC will make its final determination within 45 days of our final determination.

Public Comment

Case briefs or other written comments may be submitted to the Assistant Secretary for Import Administration no later than seven days after the date of the final verification report issued in this proceeding and rebuttal briefs, limited to issues raised in case briefs, no later than five days after the deadline date for case briefs. A list of authorities used and an executive summary of issues should accompany any briefs submitted to the Department. This summary should be limited to five pages total, including footnotes. In accordance with section 774 of the Act, we will hold a public hearing, if requested, to afford interested parties an opportunity to comment on arguments raised in case or rebuttal briefs. Tentatively, any hearing will be held three days after the deadline for submission of the rebuttal briefs at the U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230, at a time and location to be determined. Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date. Interested parties who wish to request a hearing, or to participate if one is requested, must submit a written request to the Assistant Secretary for Import Administration, U.S. Department of Commerce, Room 1870, within 30 days of the date of publication of this notice. See 19 CFR 351.310(c). Requests should contain (1) the party's name, address, and telephone number, (2) the number of participants, and (3) a list of the issues to be discussed. At the hearing, each party may make an affirmative presentation only on issues raised in that party's case brief and may make rebuttal presentations only on arguments included in that party's rebuttal brief. See 19 CFR 351.310(c).

We will make our final determination no later than 135 days after the date of publication of the preliminary determination.

This determination is issued and published in accordance with sections 733(f) and 777(i)(1) of the Act.

Dated: January 16, 2004.

James J. Jochum,

Assistant Secretary for Import Administration.

[FR Doc. 04–1576 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

International Trade Administration

Docket number: 031120285–3285–01

Certification and Submission of False Statements to Import Administration During Antidumping and Countervailing Duty Proceedings

AGENCY: Import Administration, International Trade Administration, Department of Commerce

ACTION: Notice of Inquiry

SUMMARY: The Tariff Act of 1930, as amended, requires that any person who provides factual information to Import Administration (IA) during an antidumping or countervailing duty proceeding must certify to the accuracy and completeness of such information. IA regulations set forth the specific content requirements for such certifications. IA may refer and has referred allegations of fraud regarding these certifications to the Department of Commerce's Office of Inspector General or to U.S. Customs and Border Protection, for appropriate disposition. However, IA currently has no regulations setting forth procedures for

investigating or potentially imposing sanctions against persons who certify and submit false statements to IA during antidumping or countervailing duty proceedings. IA is now considering proposing regulations that would establish procedures that the agency would follow when it has reason to believe that a person has certified and submitted false statements, or engaged in a scheme to certify and submit false statements, in the course of an antidumping or countervailing duty proceeding. The goal of this notice of inquiry is to collect information as to whether IA should consider such regulations and, if so, what procedures and administrative sanctions those regulations should establish.

DATES: Comments must be received within 60 days from the date of publication of this notice.

ADDRESSES: Written comments (original and six copies) should be sent to James J. Jochum, Assistant Secretary for Import Administration, U.S. Department of Commerce, Central Records Unit, Room 1870, Pennsylvania Avenue and 14th Street, N.W., Washington, D.C. 20230.

FOR FURTHER INFORMATION CONTACT: Elizabeth C. Seastrum, Senior Counsel, or Philip J. Curtin, Attorney Advisor, Office of the General Counsel, Office of Chief Counsel for Import Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, 202–482–0834 or 202–482–4224.

SUPPLEMENTARY INFORMATION:

Background

The Tariff Act of 1930, as amended, requires any person who provides factual information to IA during an antidumping or countervailing duty proceeding to "certify that such information is accurate and complete to the best of that person's knowledge." Tariff Act of 1930, as amended, § 782(b), 19 U.S.C. § 1677m(b). Department of Commerce regulations further stipulate that a company official, when submitting information to IA, must certify that "(1) I have read the attached submission, and (2) the information contained in this submission is, to the best of my knowledge, complete and accurate." 19 CFR 351.303(g)(1). Legal counsel or other representatives for parties appearing before IA must certify that "(1) I have read the attached submission, and (2) based on the information made available to me by (person), I have no reason to believe that the submission contains any material misrepresentations or omission of fact." 19 CFR 351.303(g)(2).

IA may refer and has referred allegations of fraud regarding these certifications to the Department of Commerce's Office of Inspector General or to U.S. Customs and Border Protection for appropriate disposition. However, there are no regulations setting forth internal procedures for IA to investigate the behavior of professionals practicing before the agency and to remedy violations of the certification requirement.[1] Similarly, there are no procedures to investigate and administratively sanction the behavior of company officials certifying to incomplete or inaccurate information.

In order to protect the integrity of its administrative processes, IA is now considering proposing regulations to govern its investigation of allegations of false statements to the agency during antidumping and countervailing duty proceedings and the imposition of sanctions including possible disbarment from practice before the agency against those persons found to have certified and submitted false statements or engaged in any scheme to provide such statements.

The goal of this notice is to collect information from members of the bar who regularly practice before IA, as well as from interested members of the general public, in order to assist IA in determining whether to issue regulations pertaining to false statements and, if so, what those regulations should address. Therefore, comments are solicited until 60 days from the date of publication of this Notice of Inquiry. IA is particularly interested in comments relating to the questions set forth in the attached Appendix.

Comments

Persons wishing to comment should file a signed original and six copies of each set of comments. The period for submission of comments will close 60 days after the publication of this notice in the **Federal Register**. The Department will consider all comments received before the close of the comment period in developing any regulatory proposal. Comments received after the end of the comment period will be considered if possible, but their consideration cannot be assured. The Department will not accept comments accompanied by a request that a part or all of the material be treated confidentially because of its business proprietary nature or for any other reason. The Department will return such comments and materials to the persons submitting the comments and will not consider them in development of any regulations. All comments responding to this Notice of Inquiry will be a matter of public record and will be available for public inspection and copying at Import Administration's Central Records Unit, Room B-099, between the hours of 8:30 a.m. and 5 p.m. on business days. The Department requires that comments be submitted in written form. The Department recommends submission of comments in electronic form to accompany the required paper copies. Comments filed in electronic form should be submitted either by e-mail to the webmaster below, or on CD-ROM. (Comments received on disk are likely to be damaged by postal radiation treatment.)

Comments received in electronic form will be made available to the public in Portable Document Format (PDF) on the Internet at the IA Web site at the following address: *http://ia.ita.doc.gov/*.

Any questions concerning file formatting, document conversion, access on the Internet, or other electronic filing issues should be addressed to Andrew Lee Beller, Import Administration Webmaster, at (202) 482–0866, email address: *webmaster–support@ita.doc.gov*.

Dated: January 20, 2004.

James J. Jochum,

Assistant Secretary for Import Administration.

Appendix

(1) Are the current certification requirements sufficient to protect the integrity of IA's administrative processes? If not, should the current certification statements, as required by IA's regulation, be amended or strengthened? If so, how? For example, should the submission be identified more precisely, and the name of the company and date be more precise? Should the standard of knowledge be stronger or more precise? (Please propose language.) Does the statutory provision need to be amended or strengthened? If so, how? (Please propose language.) If the current certification requirements are sufficient, please comment why and whether improvements in existing procedures may be made.

[1] In contrast, IA does have regulations that describe the agency's procedures for investigating and imposing sanctions for violations of administrative protective orders. 19 CFR part 354. Additionally, IA routinely responds to parties which have failed to cooperate during an antidumping or countervailing duty proceeding by use of its authority to apply adverse facts available, as appropriate. IA is not considering changing any aspect of these practices, which are based on statutory and regulatory provisions and judicial precedent.

(2) Should IA promulgate regulations establishing procedures for its investigations of allegations of fraud or false statements, including administrative sanctions against persons found to have committed fraud during antidumping or countervailing duty proceedings?
(3) What should be the definition or scope of the terms "fraud" or "false statements" as they may relate to any regulations which IA may promulgate? Should there be a requirement of actual knowledge, or would a lesser intent requirement suffice? Should there be a standard for materiality, and what should it be? Must the regulations be limited to written materials certified and submitted to the Department, or may oral statements, such as at verifications, be covered as well?
(4) Who should be subject to these regulations? Should they cover only fraud or false statements committed by attorneys and other professionals appearing before the agency, or should they also cover the foreign and domestic companies subject to IA's determinations?
(5) What should be the standard for initiation of an investigation?
(6) Should IA conduct any such investigation, or should another unit outside IA but within the Department conduct the investigation? If within IA, should a special unit be established, or should the existing APO unit assume this task? If outside IA but within the Department, where should the responsibility be placed?
(7) Should there be discovery? What rules would govern discovery, and who would adjudicate any disputes that arise during discovery? Should the Department and the suspected individual have the right to compel witnesses and production of documents?
(8) Should any adjudicatory proceedings include a hearing? Who would preside at a hearing? Would this person be the final decision-maker in the proceeding? What rules would govern a hearing? If there is no hearing, who would be the decision-maker?
(9) What type of remedial sanctions should be imposed upon a finding that a person committed a fraud? Is disbarment from practice before the agency an appropriate remedy in some cases? What type of sanction would apply to non-attorneys or to company officials?
(10) Should the regulations establish a procedure for an appeal within the Department? Who would hear such appeals?
(11) Should the regulations contain a procedure by which disbarred persons may seek reinstatement? What standards should govern adjudications of reinstatement?
(12) Should final adjudicatory decisions be confidential or public?
(13) Please provide any additional views on any other matter commenters would like to raise, including the necessity of regulations and what these regulations should address, as well as comments on whether any statutory changes are needed. References to the recently amended statutory and regulatory procedures for certification at the Securities and Exchange Commission, pursuant to sections 302 and 906 of the Sarbanes-Oxley Act of 2002, might be useful, as well as any other agency enforcement schemes which might be instructive.

[FR Doc. 04–1573 Filed 1–23–04; 8:45 am]
BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 011304C]

Taking of Marine Mammals Incidental to Specified Activities; On-Ice Seismic Operations in the Beaufort Sea

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of receipt of application and proposed incidental take authorization; request for comments.

SUMMARY: NMFS has received an application from ConocoPhillips Alaska (CPA) for an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to conducting on-ice seismic operations from Cape Halkett to Oliktok Point in the Beaufort Sea. Under the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an authorization to CPA to incidentally take, by harassment, small numbers of two species of pinnipeds for a limited period of time within the next year.

DATES: Comments and information must be received no later than February 25, 2004.

ADDRESSES: Comments on the application should be addressed to P. Michael Payne, Chief, Marine Mammal Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225, or by telephoning the contact listed here. A copy of the application containing a list of the references used in this document may be obtained by writing to this address or by telephoning the contact listed here and is also available at:*http://www.nmfs.noaa.gov/prot_res/PR2/Small_Take/smalltake_info.htm#applications*

Comments will not be accepted if submitted via e-mail or the Internet.

FOR FURTHER INFORMATION CONTACT: Kimberly Skrupky, Office of Protected Resources, NMFS, (301) 713–2322, ext 163.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Permission may be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses and that the permissible methods of taking and requirements pertaining to the monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Under section 3(18)(A), the MMPA defines "harassment" as:

> any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

The term "Level A harassment" means harassment described in subparagraph (A)(i). The term "Level B

harassment'' means harassment described in subparagraph (A)(ii).

Section 101(a)(5)(D) establishes a 45–day time limit for NMFS review of an application followed by a 30–day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny issuance of the authorization.

Summary of Request

On November 12, 2003, NMFS received an application from CPA for the taking, by harassment, of two species of marine mammals incidental to conducting an on-ice seismic survey program. As presently scheduled, the seismic operations will be conducted at Cape Halkett to Oliktok Point to approximately 20 nautical miles offshore in the Beaufort Sea in Alaska.

The purpose of the project is to gather information about the subsurface of the earth by measuring acoustic waves, which are generated on or near the surface. The acoustic waves reflect at boundaries in the earth that are characterized by acoustic impedance contrasts.

Description of the Activity

The seismic surveys use the ''reflection'' method of data acquisition. Seismic exploration uses a controlled energy source to generate acoustic waves that travel through the earth, including sea ice and water, as well as sub-sea geologic formations, and then uses ground sensors to record the reflected energy transmitted back to the surface. When acoustic energy is generated, compression and shear waves form and travel in and on the earth. The compression and shear waves are affected by the geological formations of the earth as they travel in it and may be reflected, refracted, diffracted or transmitted when they reach a boundary represented by an acoustic impedance contrast. Vibroseis seismic operations use large trucks with vibrators that systematically put variable frequency energy into the earth. At least 1.2 m (4 ft) of sea ice is required to support the various equipment and vehicles used to transport seismic equipment offshore for exploration activities. These ice conditions generally exist from 1 January until 31 May in the Beaufort Sea. Several vehicles are normally associated with a typical vibroseis operation. One or two vehicles with survey crews move ahead of the operation and mark the energy input points. Crews with wheeled vehicles often require trail clearance with bulldozers for adequate access to and within the site. Crews with tracked vehicles are typically limited by heavy snow cover and may require trail clearance beforehand.

With the vibroseis technique, activity on the surveyed seismic line begins with the placement of sensors. All sensors are connected to the recording vehicle by multi-pair cable sections. The vibrators move to the beginning of the line and begin recording data. The vibrators begin vibrating in synchrony via a simultaneous radio signal to all vehicles. In a typical survey, each vibrator will vibrate four times at each location. The entire formation of vibrators subsequently moves forward to the next energy input point (e.g. 67 m, or 220 ft, in most applications) and repeats the process. In a typical 16- to 18–hour day, a surveys will complete 6–16 km (4 to 10 linear miles) in 2–dimensional seismic operations and 24 to 64 km (15 to 40 linear miles) in a 3–dimensional seismic operation.

Description of Habitat and Marine Mammals Affected by the Activity

A detailed description of the Beaufort Sea ecosystem can be found in several documents (Corps of Engineers, 1999; NMFS, 1999; Minerals Management Service (MMS), 1992, 1996, 2001). A detailed description of the seismic survey activities and its associated marine mammals can be found in the CPA application and a number of documents referenced in the CPA application (see **ADDRESSES**), and is not repeated here. Two marine mammal species are known to occur within the proposed study area and are included in this application: the ringed seal (*Phoca hispida*) and the bearded seal (*Erignathus barbatus*). Ringed seals are year-round residents in the Beaufort Sea. The worldwide population is estimated to be between 6 and 7 million seals (Stirling and Calvert 1979). The Alaska stock of the Bering-Chukchi-Beaufort area is estimated at 1 to 1.5 (Frost 1985) or 3.3 to 3.6 million seals (Frost *et al.* 1988). Although there are no recent population estimates in the Beaufort Sea, Bengston *et al.* (2000) estimated ringed seal abundance from Barrow south to Shismaref in a portion of the Chukchi Sea to be 245,048 animals from aerial surveys flow in 1999. The NMFS 2001 Stock Assessment Report states that there are at least as many ringed seals in the Beaufort Sea. Early estimates of bearded seals in the Bering and Chukchi seas range from 250,000 to 300,000 (Papóv 1976, Burns 1981). Reliable estimates of bearded seal abundance in Alaska are unavailable. However, since bearded seals are normally found in broken ice that is unstable for on-ice seismic operation, bearded seals will rarely be encountered during seismic operations. Additional information on these species is available at: *http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/sars.html.*

Potential Effects on Marine Mammals

Incidental take is anticipated to result from short-term disturbances by noise and physical activity associated with on-ice seismic operations. These operations have the potential to disturb and temporarily displace some seals. Pup mortality could occur if any of these animals were nursing and displacement was protracted. However, it is unlikely that a nursing female would abandon her pup given the normal levels of disturbance from the proposed activities and the typical movement patterns of ringed sea pups among different holes. Seals also use as many as four lairs spaced as far as 3437 m (11276 ft) apart. In addition, seals have multiple breathing holes. Pups may use more holes than adults, but the holes are generally closer together. This indicates that adult seals and pups can move away from seismic activities, particularly since the seismic equipment does not remain in any specific area for a prolonged time. Given those considerations, combined with the small proportion of the population potentially disturbed by the proposed activity, impacts are expected to be negligible for the ringed and bearded seal populations.

In the winter, bearded seals are restricted to cracks, broken ice, and other openings in the ice. On-ice seismic operations avoid those areas for safety reasons. Therefore, any exposure of bearded seals to on-ice seismic operations would be limited to distant and transient exposure. Bearded seals exposed to a distant on-ice seismic operation might dive into the water. Consequently, no significant effects on individual bearded seals or their population are expected, and the number of individuals that might be temporarily disturbed would be very low.

Please see the **Federal Register** notice from the 2003 CPA activities (68 FR 14401, March 25, 2003) for more information regarding the potential effects on marine mammals during on-ice seismic operations.

Potential Effects on Subsistence

Residents of the village of Nuiqsut are the primary subsistence users in the activity area. The subsistence harvest

during winter and spring is primarily ringed seals, but during the open-water period both ringed and bearded seals are taken. Nuiqsut hunters may hunt year round; however, in more recent years most of the harvest has been in open water instead of the more difficult hunting of seals at holes and lairs (McLaren, 1958; Nelson, 1969). The most important area for Nuiqsut hunters is off the Colville River Delta, between Fish Creek and Pingok Island, which corresponds to approximately the eastern half to the activity area. Seal hunting occurs in this area by snow machine before spring break-up and by boat during summer. Subsistence patterns may be reflected through the harvest data collected in 1992, when Nuiqsut hunters harvested 22 of 24 ringed seals and all 16 bearded seals during the open water season from July to October (Fuller and George, 1997). Harvest data for 1994 and 1995 show 17 of 23 ringed seals were taken from June to August, while there was no record of bearded seals being harvested during these years (Brower and Opie, 1997). Only a small number of ringed seals was harvested during the winter to early spring period, which corresponds to the time of the proposed on-ice seismic operations.

Based on harvest patterns and other factors, on-ice seismic operations in the activity area are not expected to have an unmitigable adverse impact on subsistence uses of ringed and bearded seals because:

(1) Operations would end before the spring ice breakup, after which subsistence hunters harvest most of their seals.

(2) Operations would temporarily displace relatively few seals, since most of the habitat in the activity area is marginal to poor and supports relatively low densities of seals during winter. Displaced seals would likely move a short distance and remain in the area for potential harvest by native hunters (Frost and Lowry, 1988; Kelly et al., 1988).

(3) The area where seismic operations would be conducted is small compared to the large Beaufort Sea subsistence hunting area associated with the extremely wide distribution of ringed seals.

(4) To the maximum extent practicable, offshore vibroseis activities in Harrison Bay would progress in a westward direction and from deeper water shoreward to minimize disturbance to any subsistence hunting that may occur during seismic operations. If subsistence hunting occurred during winter, it would primarily be in the eastern half of Harrison Bay.

In order to ensure the least practicable adverse impact on the species and the subsistence use of ringed seals, all activities will be conducted as far as practicable from any observed ringed seal structure, and crews will be required to avoid hunters and the locations of any seals being hunted in the activity area, whenever possible. Finally, the applicant will consult with subsistence hunters of Nuiqsut and provide the community, the North Slope Borough, and the Inupiat Community of the North Slope with information about its planned activities (timing and extent) before initiating any on-ice seismic activities.

Mitigation

The following mitigation measures are proposed for the subject surveys: (1) All activities will be conducted as far as practicable from any observed ringed or bearded seal lair and no energy source will be placed over a ringed or bearded seal lair; (2) only vibrator-type energy-source equipment shown to have similar or lesser effects will be used; and (3) CPA will provide training for the seismic crews so they can recognize potential areas of ringed seal lairs and adjust the seismic operations accordingly.

CPA will also continue to work with NMFS, other Federal agencies, the State of Alaska, Native communities of Barrow and Nuiqsut, and the Inupiat Community of the Arctic Slope (ICAS) to assess measures to further minimize any impact from seismic activity. A Plan of Cooperation will be developed between CPA and Nuiqsut to ensure that seismic activities do not interfere with subsistence harvest of ringed or bearded seals.

If seismic operations go beyond March 20, in waters deeper than 3 meters (9.8 ft), a survey using trained dogs will be completed to identify active seal holes/birthing lairs or hole/lair habitats so they can be avoided by seismic operations to the greatest extent practicable. If trained dogs are not available, potential habitat will be identified by trained marine mammal biologists based on the characteristics of the ice (i.e., deformation and cracks).

Marine Mammal Monitoring

Ringed seal pupping occurs in lairs from late March to mid-to-late April (Smith and Hammill, 1981). Prior to commencing on-ice seismic surveys after March 20th, a survey using experienced field personnel and trained dogs will be conducted to identify potential seal structures along the planned on-ice seismic transmission routes. The seal structure survey will be conducted before selection of precise transit routes to ensure that seals, particularly pups, are not injured by equipment. The locations of all seal structures will be recorded by a Global Positioning System (GPS), staked, and flagged with surveyor's tape. Surveys will be conducted 150 m (492 ft) to each side of the transit routes. Actual width of the route may vary depending on wind speed and direction, which strongly influence the efficiency and effectiveness of dogs locating seal structures. The survey will be conducted in only the portions of the activity area where water depths exceed 3 m (9.8 ft). Few, if any, seals inhabit ice-covered waters below 3 m (9.8 ft) due to water freezing to the bottom or poor prey availability caused by the limited amount of ice-free water.

The impact of take, while anticipated to be negligible, will be assessed by conducting a second seal structure survey immediately after the end of the seismic surveys. A single on-ice survey will be conducted by biologists on snowmachines using a GPS to relocate and determine the status of seal structures located during the initial survey. The status (active vs. inactive) of each structure will be determined to assess the level of incidental take by seismic operations. The number of active seal structures abandoned between the initial survey and the final survey will be the basis for enumerating take. If dogs are not available for the initial survey, take will be determined by using observed densities of seal on ice reported by Moulton *et al.* (2001) for the Northstar project, which is approximately 37 km (20 nm) from the eastern edge of the proposed activity area.

In the event that seismic surveys can be completed in that portion of the activity area ≥ 3 m (9.8 ft) before mid-March, no field surveys would be conducted of seal structures. Under this scenario, surveys would be completed before pups are born and disturbance would be negligible. Therefore, take estimates would be determined for only that portion of the activity area exposed to seismic surveys after March 20, which would be in water 3 m (9.8 ft) or less deep. Take for this area would be estimated by using the observed density (13/100 km2) reported by Moulton *et al.* (2001) for water depths between 0 to 3 m (0 to 9.8 ft) in the Northstar project area, which is the only source of a density estimate stratified by water depth for the Beaufort Sea. This would be an overestimation requiring a substantial downward adjustment to

reflect the actual take of seals using lairs, since few if any of the structures in these water depths would be used for birthing, and Moulton et al. (2001) estimate includes all seals. This monitoring program was reviewed at the fall 2002 on-ice meeting sponsored by NMFS' National Marine Mammal Laboratory in Seattle and found acceptable.

Reporting

An annual report must be submitted to NMFS within 90 days of completing the year's activities.

Endangered Species Act (ESA)

NMFS has determined that no species listed as threatened or endangered under the ESA will be affected by issuing an authorization under section 101(a)(5)(D) of the MMPA.

National Environmental Policy Act (NEPA)

The information provided in Environmental Assessments (EAs) prepared in 1993 and 1998 for winter seismic activities led NOAA to conclude that implementation of either the preferred alternative or other alternatives identified in the EA would not have a significant impact on the human environment. Therefore, an Environmental Impact Statement was not prepared. The proposed action discussed in this document is not substantially different from the 1992 and 1998 actions, and a reference search has indicated that no significant new scientific information or analyses have been developed in the past several years significant enough to warrant new NEPA documentation. Accordingly, this action is categorically excluded from further review under NOAA Administrative Order 216–6.

Preliminary Conclusions

The anticipated impact of winter seismic activities on the species or stock of ringed and bearded seals is expected to be negligible for the following reasons:

(1) The activity area supports a small proportion (<1 percent) of the ringed and bearded seal populations in the Beaufort Sea.

(2) Most of the winter-run seismic lines will be on ice over shallow water where ringed seals are absent or present in very low abundance. Over 60 percent of the activity area is near shore and/or in water less than 3 m (9.8 ft) deep, which is generally considered poor seal habitat. Moulton et al. (2001) reported that only 6 percent of 660 ringed seals observed on ice in the Northstar project area were in water between 0 to 3 m (0 to 9.8 ft)deep.

(3) Seismic operators will avoid moderate and large pressure ridges, where seal and pupping lairs are likely to be most numerous, for reasons of safety and because of normal operational constraints.

(4) Many of the on-ice seismic lines and connecting ice roads will be laid out and explored during January and February, when many ringed seals are still transient, and considerably before the spring pupping season.

(5) The sounds from energy produced by vibrators used during on-ice seismic programs typically are at frequencies well below those used by ringed seals to communicate (1000 Hz). Thus, ringed seal hearing is not likely to be very good at those frequencies and seismic sounds are not likely to have strong masking effects on ringed seal calls. This effect is further moderated by the quiet intervals between seismic energy transmissions.

(6) There has been no major displacement of seals away from on-ice seismic operations (Frost and Lowry, 1988). Further confirmation of this lack of major response to industrial activity is illustrated by the fact that there has been no major displacement of seals near the Northstar Project. Studies at Northstar have shown a continued presence of ringed seals throughout winter and creation of new seal structures (Williams *et al.*, 2001).

(7) Although seals may abandon structures near seismic activity, studies have not demonstrated a cause and effect relationship between abandonment and seismic activity or biologically significant impact on ringed seals. Studies by Williams *et al.* (2001), Kelley *et al.* (1986, 1988) and Kelly and Quakenbush (1990) have shown that abandonment of holes and lairs and establishment or re-occupancy of new ones is an ongoing natural occurrence, with or without human presence. Link et al. (1999) compared ringed seal densities between areas with and without vibroseis activity and found densities were highly variable within each area and inconsistent between areas (densities were lower for 5 days, equal for 1 day, and higher for 1 day in vibroseis area), suggesting other factors beyond the seismic activity likely influenced seal use patterns. Consequently, a wide variety of natural factors influence this patterns of seal use including time of day, weather, season, ice deformation, ice thickness, accumulation of snow, food availability and predators as well as ring seal behavior and populations dynamics.

In winter, bearded seals are restricted to cracks, broken ice, and other openings in the ice. On-ice seismic operations avoid those areas for safety reasons. Therefore, any exposure of bearded seals to on-ice seismic operations would be limited to distant and transient exposure. Bearded seals exposed to a distant on-ice seismic operation might dive into the water. Consequently, no significant effects on individual bearded seals or their population are expected, and the number of individuals that might be temporarily disturbed would be very low.

As a result, CPA believes the effects of on-ice seismic are expected to be limited to short-term and localized behavioral changes involving relatively small numbers of seals. NMFS has preliminarily determined, based on information in the application and EA, that these changes in behavior will have no more than a negligible impact on the affected species or stocks of ringed and bearded seals (NMFS, 1998). Also, the potential effects of the proposed on-ice seismic operations during 2004 are unlikely to result in more than small numbers of seals being affected and will not have an unmitigable adverse impact on subsistence uses of these two species.

Proposed Authorization

NMFS proposes to issue an IHA to CPA for conducting seismic surveys at Cape Halkett to Oliktok Point in the Beaufort Sea in Alaska, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. NMFS has preliminarily determined that the proposed activity would result in the harassment of small numbers of marine mammals; would have no more than a negligible impact on the affected marine mammal stocks; and would not have an unmitigable adverse impact on the availability of species or stocks for subsistence uses.

Information Solicited

NMFS requests interested persons to submit comments and information concerning this request (see **ADDRESSES**).

Dated: January 16, 2004.

Laurie K. Allen,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 04–1569 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 011604A]

Endangered Species; File No. 1450

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Receipt of application.

SUMMARY: Notice is hereby given that Jane Provancha, Dynamac Corporation, 100 Spaceport Way, Cape Canaveral, FL 32920, has applied in due form for a permit to take green sea turtles (*Chelonia mydas*) and loggerhead sea turtles (*Caretta caretta*) for purposes of scientific research.

DATES: Written or telefaxed comments must be received on or before February 25, 2004.

ADDRESSES: The application and related documents are available for review upon written request or by appointment in the following office(s):

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301)713–2289; fax (301)713–0376; and

Southeast Region, NMFS, 9721 Executive Center Drive North, St. Petersburg, FL 33702–2432; phone (727)570–5301; fax (727)570–5320.

FOR FURTHER INFORMATION CONTACT: Sarah Wilkin (301) 713–2289 or Patrick Opay (301) 713–1401.

SUPPLEMENTARY INFORMATION: The subject permit is requested under the authority of the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*) and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR 222–226).

The applicant proposes to utilize tangle net methodology to study the abundance and distribution of green and loggerhead sea turtles in the waters of Mosquito Lagoon, Indian River Lagoon, Volusia and Brevard Counties, FL. The purpose of the research is to provide a basic understanding of the abundance, location, and movement of sea turtles within this estuarine ecosystem. The proposed research project would be a continuation of work that has been conducted by these researchers in this area since 1995. This research will help resource managers develop optimal management strategies in order to conserve and protect sea turtles and their habitat; recapture data provides important information on the biology of these species, including health condition, growth rates, residency and survival. Turtles will be captured in a large mesh (9 in/22cm) tangle net. Turtles will be retained on a vessel for the collection of morphometric data, flipper and PIT tagging, photographs, blood sampling, lavage, and release. Forty green sea turtles and 15 loggerhead turtles of all sizes will be captured annually. Twelve of the 40 captured green sea turtles will have sonic transmitters glued to the carapace. These turtles will be tracked and monitored using moored receivers. The requested duration of this permit is 5 years.

Written comments or requests for a public hearing on this application should be mailed to the Chief, Permits, Conservation and Education Division, F/PR1, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910. Those individuals requesting a hearing should set forth the specific reasons why a hearing on this particular request would be appropriate.

Comments may also be submitted by facsimile at (301)713–0376, provided the facsimile is confirmed by hard copy submitted by mail and postmarked no later than the closing date of the comment period. Please note that comments will not be accepted by e-mail or by other electronic media.

Dated: January 16, 2004.

Carrie W. Hubard,

Acting Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 04–1570 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 011604B]

Endangered Species; File No. 1377

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Receipt of application for modification.

SUMMARY: Notice is hereby given that Dr. Anton Tucker, Mote Marine Laboratory, 1600 Ken Thompson Parkway, Sarasota, FL 34236, has requested a modification to scientific research Permit No. 1377.

DATES: Written or telefaxed comments must be received on or before February 25, 2004.

ADDRESSES: The modification request and related documents are available for review upon written request or by appointment in the following office(s):

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301)713–2289; fax (301)713–0376; and

Southeast Region, NMFS, 9721 Executive Center Drive North, St. Petersburg, FL 33702–2432; phone (727)570–5301; fax (727)570–5320.

Written comments or requests for a public hearing on this request should be submitted to the Chief, Permits, Conservation and Education Division, F/PR1, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910. Those individuals requesting a hearing should set forth the specific reasons why a hearing on this particular modification request would be appropriate.

Comments may also be submitted by facsimile at (301)713–0376, provided the facsimile is confirmed by hard copy submitted by mail and postmarked no later than the closing date of the comment period. Please note that comments will not be accepted by e-mail or other electronic media.

FOR FURTHER INFORMATION CONTACT: Sarah Wilkin or Carrie Hubard, (301)713–2289.

SUPPLEMENTARY INFORMATION: The subject modification to Permit No. 1377, issued on December 4, 2002 (67 FR 76727) is requested under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR 222–226).

Permit No. 1377 authorizes the permit holder to: capture, flipper and PIT tag and collect blood and tissue samples from 150 juvenile and subadult green (*Chelonia mydas*), 150 juvenile and sub-adult Kemp's ridley (*Lepidochelys kempi*), 100 juvenile and sub-adult loggerhead (*Caretta caretta*), and 5 juvenile and sub-adult hawksbill (*Eretmochelys imbricata*) sea turtles annually in Charlotte Harbor, Florida. Additionally, 10 green, 10 Kemp's ridley, 10 loggerhead, and 5 hawksbill sea turtles may also be collected annually from Pine Island Sound and the Gulf of Mexico waters near Crystal River, FL incidental to gill net operations targeting sharks conducted by the Center for Shark Research. These turtles will be measured, flipper tagged and released. In the second through fifth years of the permit, up to 5 green and/or Kemp's ridley turtles will also have

satellite tags attached. This permit expires December 31, 2007. The permit holder requests authorization to expand the study area to include the Florida Keys, and to allow the capture, flipper and PIT tagging and collection of blood and tissue samples from an additional 150 juvenile and subadult green, 150 juvenile and sub-adult Kemp's ridley, 100 juvenile and sub-adult loggerhead, and 5 juvenile and sub-adult hawksbill sea turtles in the Florida Keys. The permit holder requests the addition of sampling techniques for all captured turtles to include scute scraping for heavy metal analysis, bioelectrical impedance analysis to determine fat content, gastric lavage to obtain stomach contents, and laparoscopic surgery to determine sex and reproductive status. Additionally, the permit holder requests authorization to utilize additional telemetry instruments and attachment methods, including radio tags, sonic (acoustic) tags, time depth recorders, and animal-borne video, audio and environmental data collection systems (AVEDS). Instruments will be attached to a maximum of 25 turtles of any species in Charlotte Harbor, and 25 turtles of any species in the Florida Keys, annually.

Dated: January 16, 2004.

Carrie W. Hubard,

Acting Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 04–1571 Filed 1–23–04; 8:45 am]

BILLING CODE 3510–22–S

COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

Request for Public Comments on Commercial Availability Petition under the African Growth and Opportunity Act (AGOA), the United States-Caribbean Basin Trade Partnership Act (CBTPA), and the Andean Trade Promotion and Drug Eradication Act (ATPDEA)

January 21, 2004.

AGENCY: The Committee for the Implementation of Textile Agreements

ACTION: Request for public comments concerning a petition for a determination that certain combed compact yarns, of wool or fine animal hair, cannot be supplied by the domestic industry in commercial quantities in a timely manner under the AGOA, the CBTPA, and the ATPDEA.

SUMMARY: On January 14, 2004, the Chairman of CITA received a petition from Warren Corporation alleging that combed compact yarns, of wool or fine animal hair, classified in subheadings 5107.10, 5107.20, or 5108.20 of the Harmonized Tariff Schedule of the United States (HTSUS), cannot be supplied by the domestic industry in commercial quantities in a timely manner. The petition requests that apparel from such yarns or from U.S.-formed fabrics containing such yarns be eligible for preferential treatment under the AGOA, the CBTPA, and the ATPDEA. CITA hereby solicits public comments on this request, in particular with regard to whether such yarns can be supplied by the domestic industry in commercial quantities in a timely manner. Comments must be submitted by **February 10, 2004** to the Chairman, Committee for the Implementation of Textile Agreements, Room 3001, United States Department of Commerce, 14th and Constitution Avenue, N.W. Washington, D.C. 20230.

FOR FURTHER INFORMATION CONTACT: Martin Walsh, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 482-2818.

SUPPLEMENTARY INFORMATION:

Authority: Section 112(b)(5)(B) of the AGOA; Section 213(b)(2)(A)(v)(II) of the CBTPA, as added by Section 211(a) of the CBTPA; Sections 1 and 6 of Executive Order No. 13191 of January 17, 2001; Section 204 (b)(3)(B)(ii) of the ATPDEA, Presidential Proclamation 7616 of October 31, 2002, Executive Order 13277 of November 19, 2002, and the United States Trade Representative's Notice of Further Assignment of Functions of November 25, 2002.

Background

The AGOA, the CBTPA, and the ATPDEA provide for quota- and duty-free treatment for qualifying textile and apparel products. Such treatment is generally limited to products manufactured from yarns and fabrics formed in the United States or a beneficiary country. The AGOA, the CBTPA, and the ATPDEA also provide for quota- and duty-free treatment for apparel articles that are both cut (or knit-to-shape) and sewn or otherwise assembled in one or more beneficiary countries from fabric or yarn that is not formed in the United States, if it has been determined that such fabric or yarn cannot be supplied by the domestic industry in commercial quantities in a timely manner. In Executive Order No. 13191 (66 FR 7271) and pursuant to Executive Order No. 13277 (67 FR 70305) and the United States Trade Representative's Notice of Redelegation of Authority and Further Assignment of Functions (67 FR 71606), the President delegated to CITA the authority to determine whether yarns or fabrics cannot be supplied by the domestic industry in commercial quantities in a timely manner under the AGOA, the CBTPA, or the ATPDEA. On March 6, 2001, CITA published procedures that it will follow in considering requests (66 FR 13502).

On January 14, 2004, the Chairman of CITA received a petition from Warren Corporation alleging that combed compact yarns, of wool or fine animal hair, classified in subheadings 5107.10, 5107.20, or 5108.20 of the Harmonized Tariff Schedule of the United States (HTSUS), cannot be supplied by the domestic industry in commercial quantities in a timely manner. It requests quota- and duty-free treatment under the AGOA, the CBTPA, and the ATPDEA for apparel articles that are both cut (or knit-to-shape) and sewn in one or more AGOA, CBTPA, or ATPDEA beneficiary countries from such yarns or from U.S.-formed fabrics containing such yarns.

CITA is soliciting public comments regarding this request, particularly with respect to whether this yarn can be supplied by the domestic industry in commercial quantities in a timely manner. Also relevant is whether other yarns that are supplied by the domestic industry in commercial quantities in a timely manner are substitutable for this yarn for purposes of the intended use. Comments must be received no later than **February 10, 2004.** Interested persons are invited to submit six copies of such comments or information to the Chairman, Committee for the Implementation of Textile Agreements, room 3100, U.S. Department of Commerce, 14th and Constitution Avenue, N.W., Washington, DC 20230.

If a comment alleges that this yarn can be supplied by the domestic industry in commercial quantities in a timely manner, CITA will closely review any supporting documentation, such as a signed statement by a manufacturer of the yarn stating that it produces the yarn that is the subject of the request, including the quantities that can be supplied and the time necessary to fill an order, as well as any relevant information regarding past production.

CITA will protect any business confidential information that is marked business confidential from disclosure to the full extent permitted by law. CITA will make available to the public non-confidential versions of the request and non-confidential versions of any public comments received with respect to a request in room 3100 in the Herbert Hoover Building, 14th and Constitution Avenue, N.W., Washington, DC 20230.

Persons submitting comments on a request are encouraged to include a non-confidential version and a non-confidential summary.

James C. Leonard III,

Chairman, Committee for the Implementation of Textile Agreements.

[FR Doc.04–1617 Filed 1–22–04; 11:17 am]

BILLING CODE 3510–DR–S

DEPARTMENT OF DEFENSE

Department of the Air Force

Notice of Intent (NOI) To Prepare Environmental Impact Statement (EIS) on the Proposed Military Family Housing Demolition, Construction, Renovation, and Leasing Program, Eglin Air Force Base (AFB) and Hurlburt Field, FL

AGENCY: Air Force Material Command, United States Air Force.

ACTION: Notice of intent.

SUMMARY: Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321, *et seq.*), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500–1508), and Air Force policy and procedures (32 CFR part 989), the Air Force is issuing this notice to advise the public of its intent to prepare an EIS to assess the potential environmental impacts on a proposal to provide a means to rapidly upgrade housing to current Air Force standards while ensuring that appropriate housing is available and affordable for military personnel assigned to Eglin AFB and Hurlburt Field.

A total of 2,739 existing housing units distributed among thirteen parcels on Eglin AFB and Hurlburt Field would be conveyed to a private contractor along with associated infrastructure and utilities. Selected real estate (land) on which housing units are located would remain in Air Force ownership but would be leased to the private developer for 50 years. The developer will manage and maintain the housing, making it available to military personnel at rates that will not exceed their housing allowance. Of the 2,739 total units proposed for conveyance, there are 138 existing units that meet standards and do not require improvement, two units that would be renovated in place, and 2,594 units that would be demolished.

The Air Force is proposing that a developer construct 2,015 new units, for a net total of 2,155 privatized military family housing units. At least some of the new units would be located on sites not currently developed for housing. All demolition and construction activities would occur on Air Force property within the Eglin Reservation. The Air Force used a screening process to identify suitable areas for new housing development and identified four such parcels, all located in the south-central portion of Eglin Reservation.

The Air Force has developed five alternatives for accomplishing the proposed action. These alternatives differ only in the location and distribution of the 2,015 new units to be constructed. Under the No Action Alternative the Air Force would continue owning and managing all current 2,739 housing units. The standard military construction process would continue to be used to upgrade housing as needed.

The Air Force will host public scoping meetings in the local area. The exact dates, times, and location(s) will be announced through the local media. Oral and written comments presented at the public meetings, as well as written comments received by the Air Force during this scoping period and throughout the environmental impact analysis process, will be considered in the preparation of the EIS. To ensure the Air Force has sufficient time to consider public input in the preparation of the Draft EIS, written comments from the public should be submitted to the address below by March 23, 2004:

Point of Contact: Please direct any written comments or requests for information to Ms. Julia Cantrell, HQ AFCEE/ISM, 3300 Sydney Brooks Road, Brooks City-Base, TX 78235–5112 (PH:210.536.3515).

Pamela Fitzgerald,

Air Force Federal Register Liaison Officer.

[FR Doc. 04–1537 Filed 1–23–04; 8:45 am]

BILLING CODE 5001–05–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP04–140–000]

Dominion Cove Point LNG, LP; Notice of Proposed Changes in FERC Gas Tariff

January 16, 2004.

Take notice that on January 13, 2004, Dominion Cove Point LNG, LP (Cove Point) tendered for filing as part of its FERC Gas Tariff, Original Volume No. 1, First Revised Sheet No. 263, to be effective February 12, 2003.

Cove Point states that the purpose of this filing is to allow Cove Point to render bills to its customers electronically.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with sections 385.214 or 385.211 of the Commission's rules and regulations. All such motions or protests must be filed in accordance with section 154.210 of the Commission's regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the eLibrary. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See*, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the e-Filing link.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–110 Filed 01–23–04;8:45 AM]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket Nos. RP98–53–027 and GP98–29–002]

Kinder Morgan Interstate Gas Transmission LLC; Notice of Refund Report

January 16, 2004.

Take notice that on December 31, 2003, Kinder Morgan Interstate Gas Transmission LLC (KMIT) tendered for filing its Refund Report pursuant to the Commission's Letter Order approving a settlement issued on September 11, 2003 (104 FERC ¶ 61,265 (2003).

KMIGT states that on December 12, 2003, it refunded to the local distribution companies listed on Appendix B to the Settlement Agreement their allocated share of the net Kansas ad valorem tax

reimbursements received by KMIGT pursuant to the Settlement Agreement. KMIGT further states that on December 24, 2003, it refunded to Public Service Company of Colorado (PSCo) amounts from pre-2003 refunds that it had been holding in suspense attributable to service proposed by KMIGT's predecessor to Iowa Electric Light and Power Company pursuant to an indemnification and release agreement executed between KMIGT and PSCo.

KMIGT states that copies of the filing have been served upon all to Docket No. RP98–53, on all affected state regulatory commissions, and on all LDCs listed on Appendix B to the Settlement Agreement, whether or not they are parties to this proceeding.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with section 385.211 of the Commission's rules and regulations. All such protests must be filed on or before the protest date as shown below. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the eLibrary link. Enter the docket number excluding the last three digits in the docket number field to access the document. Comments, protests and interventions may be filed electronically via the Internet in lieu of paper. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. *See*, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the e-Filing link.

Protest Date: January 23, 2004.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–105 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP04–50–000]

Texas Eastern Transmission, LP; Notice of Certificate Application

January 16, 2004.

Take notice that Texas Eastern Transmission, LP (Texas Eastern), 5400 Westheimer Court, Houston, Texas 77056–5310, filed in Docket No. CP04–50–000 on January 6, 2004, pursuant to section 7(C) of the Natural Gas Act (NGA), as amended, and part 157 of the Commission's regulations its application for a certificate of public convenience and necessity and related authorizations to lease 100,000 Dekatherms per day (Dth/d) of capacity to Discovery Gas Transmission LLC (Discovery). Texas Eastern states that the Lease Capacity will serve to support Discovery's proposed Market Expansion Project, for which Discovery has filed a related certificate application with the Commission in Docket No. CP03–342–000. As described in the application, Discovery's Market Expansion Project is being constructed for Discovery to serve new markets in southern Louisiana. Texas Eastern requests that the Commission issue a certificate no later than March 1, 2004, for its application, all as more fully set forth in the application which is on file with the Commission and open to public inspection. The filing is available for review at the Commission in the Public Reference Room or may be viewed on the Web at *http://www.ferc.gov* using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676 or for TTY, (202) 502–8659.

Any questions regarding the amendment applications should be directed to Steven E. Tillman, General Manager, Regulatory Affairs, Texas Eastern Transmission, LP, P.O. Box 1642, Houston, Texas, 77251–1642, at (713) 627–5113, with fax at (713) 627–5947.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's rules of practice and procedure (18 CFR 385.214 or 385.211) and the regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 14 copies of filings made with the Commission and must mail a copy to the applicant and to every other party in the proceeding. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commenters will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commenters will not be required to serve copies of filed documents on all other parties. However, the non-party commenters will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission may issue a preliminary determination on non-environmental issues prior to the completion of its review of the environmental aspects of the project. This preliminary determination typically considers such issues as the need for the project and its economic effect on existing customers of the applicant, on other pipelines in the area, and on landowners and communities. For example, the Commission considers

the extent to which the applicant may need to exercise eminent domain to obtain rights-of-way for the proposed project and balances that against the non-environmental benefits to be provided by the project. Therefore, if a person has comments on community and landowner impacts from this proposal, it is important either to file comments or to intervene as early in the process as possible.

Comments, protests and interventions may be filed electronically via the Internet in lieu of paper. *See*, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages electronic filing.

Comment Date: January 29, 2004.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–107 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP00–426–018]

Texas Gas Transmission, LLC; Notice of Filing of Negotiated Rate Agreement

January 16, 2004.

Take notice that on January 7, 2004, Texas Gas Transmission, LLC (Texas Gas), submitted for filing an addendum to a negotiated rate agreement with Tennessee Valley Authority (TVA).

Texas Gas states that the purpose of this filing is to submit an addendum to the TVA negotiated rate agreement, which corrects an erroneously referenced loan contract number. Both Texas Gas and TVA accepted and agreed to the addendum, thereby acknowledging the correction and upholding all other provisions of the October 21, 2003, negotiated rate agreement.

Texas Gas states that copies of this filing are being mailed to all parties on the official service list in this docket, to Texas Gas's official service list, to Texas Gas's jurisdictional customers, and to interested state commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with sections 385.214 or 385.211 of the Commission's Rules and Regulations. All such motions or protests must be filed in accordance with section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the eLibrary. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659. The Commission strongly encourages electronic filings. See, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the e-Filing link.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–108 Filed 1–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP04–139–000]

Virginia Natural Gas, Inc., Complainant v. Columbia Gas Transmission Corporation, Respondent; Notice of Complaint

January 14, 2004.

Take notice that on January 13, 2004, Virginia Natural Gas, Inc. (VNG) pursuant to rule 206 of the rules of practice and procedure of the Federal Energy Regulatory Commission (Commission), 18 CFR 385.206 (2003), filed a Complaint against Columbia Gas Transmission Corporation (Columbia). VNG alleges that Columbia violated Sections 4, 5, and 7(b) of the Natural Gas Act, 15 U.S.C. 717c, 717d, and 717f(b), and the Commission's regulations applicable to open-access transportation of natural gas, 18 CFR 284, Columbia's Tariff, and Columbia's service agreements with VNG when Columbia:

- Reduced by 75 percent, for a period beginning February 20, 2003, and extending through the end of the 2002–2003 heating season, Liquefaction Demand under Columbia's Rate Schedule X–133, providing for natural gas liquefaction, storage, vaporization and delivery service to VNG, for reasons of claimed "*force majeure*" when, in fact, the reason was the innate inability of Columbia's facilities to perform consistently with the requirements of Columbia's certificate;
- With respect to deliveries to VNG's Southern System, failed on five separate occasions during the 2002–03 heating season, to meet Minimum Daily Pressure Obligations set out, pursuant to Columbia's Tariff, in Columbia's service agreements with VNG under Columbia's Rate Schedules FTS and SST; and
- Curtailed, severely if not entirely, VNG's storage withdrawals under Columbia's Rate Schedule FSS providing for firm storage service when Columbia's inability to perform is traceable to Columbia's own operating practices, including, during the critical period, offering service under its PAL Rate Schedule providing for interruptible parking and lending service.

VNG states that Columbia's violations harmed VNG by requiring VNG to take extraordinary and costly measures to continue to serve the customers, including high priority customers, that depend upon VNG's Southern System and requiring VNG to forego numerous asset value maximization opportunities.

By way of remedy, VNG requests the Commission to order Columbia, pursuant to section 16 of the NGA, 15 U.S.C. 717o, to make a monetary payment to VNG to prevent Columbia's unjust enrichment and to place VNG in the position VNG would have occupied absent Columbia's violations. Additionally, VNG also requests the Commission to require Columbia to take all necessary actions, including the construction or repair of facilities without additional cost to VNG or Columbia's other shippers, to ensure that Columbia has the requisite facilities in place to meet Columbia's firm obligations to VNG each and every day. VNG also requests the Commission to grant VNG any other relief the Commission believes is appropriate under the circumstances. Lastly, VNG requests, pursuant to 18 CFR 1b.8(a), that the Commission issue, pursuant to 18 CFR 1b.5, an Order of Investigation setting a formal, public investigation into whether Columbia unlawfully subordinated firm storage service to interruptible service.

Any person desiring to be heard or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with rules 211 and 214 of the Commission's rules of practice and procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding.

Any person wishing to become a party must file a motion to intervene. The answer to the complaint and all comments, interventions or protests must be filed on or before the comment date. This filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or for TTY, contact (202) 502–8659. The answer to the complaint, comments, protests and interventions may be filed electronically via the Internet in lieu of paper; *see* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages electronic filings.

Comment Date: January 29, 2004.

Magalie R. Salas,

Secretary.

[FR Doc. E4–101 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Notice of New Docket Prefix "TS"

January 15, 2004.

Notice is hereby given that a new docket prefix—Transmission Standards or "TS" has been established to identify filings and issuances related to Standards of Conduct for Transmission Providers under Order No. 2004. The TS docket prefix must be used for filings relating to the Standards of Conduct under Order No. 2004, including all informational filings, compliance filings and requests for waiver or exemption.

Magalie R. Salas,

Secretary.

[FR Doc. E4–104 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EC04–52–000, *et al.*]

Covanta Energy Corporation, *et al.*; Electric Rate and Corporate Filings

January 15, 2004.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

1. Covanta Energy Corporation, Covanta Fairfax, Inc., Covanta Haverhill Associates, Covanta Union, Inc., Covanta Onondaga, Limited Partnership, Danielson Holding Corporation

[Docket No. EC04–52–000]

Take notice that on January 13, 2004 Covanta Energy Corporation (Covanta), Covanta Fairfax, Inc., Covanta Haverhill Associates, Covanta Union, Inc., Covanta Onondaga, Limited Partnership and Danielson Holding Corporation (Danielson) (collectively, the Applicants) filed with the Federal Energy Regulatory Commission an application pursuant to section 203 of the Federal Power Act for authorization to indirectly dispose of certain jurisdictional facilities in connection with Danielson's purchase of all shares of Covanta common stock in accordance with a plan of reorganization filed with the United States Bankruptcy Court for the Southern District of New York.

Applicants respectfully request that the Commission approve this transfer no later than February 24, 2004.

Comment Date: February 3, 2004.

2. Duquesne Power, L.P.

[Docket No. EG04–21–000]

On December 15, 2003, Duquesne Power, L.P. (Duquesne Power) filed a request for a refund of filing fee in the above-referenced proceeding. In its filing, Duquesne Power states that it inappropriately paid to the Commission a filing fee of $870.000.

On December 8, 2003, Duquesne Power filed an application for Determination of Status as an Exempt Wholesale Generator (EWG) pursuant to section 32 of the Public Utility Holding Company Act of 1935, as amended. With its application, Duquesne Power paid the $870.00 filing fee pursuant to 18 CFR 381.801 (2003). Section 381.801 states that the filing fee is "applicable to applicants who will not become public utilities as defined in section 201(e) of the Federal Power Act (FPA) upon sale of energy as wholesale." Duquesne Power will be a public utility as defined in section 201(e) of the FPA upon the sale of electric energy at wholesale, and thus no fee is required in connection with its application.

For good cause shown, the request is granted and the refund will be processed accordingly. The refund will be made payable to "Duquesne Power, L.P." and will be forwarded to Paul Silverman, Skadden, Arps, Slate, Meagher & Flom LLP, 1440 New York Avenue, NW., Washington, DC 20005–2111.

3. Rolling Hills Landfill Gas, LLC

[Docket No. EG04–30–000]

On January 13, 2004, Rolling Hills Landfill Gas, LLC (Rolling Hills), a Delaware limited liability company, with its principal place of business at 578 Longview Road, Boyerstown, Pennsylvania 19512, filed with the Federal Energy Regulatory Commission an application for a determination of exempt wholesale generator status pursuant to Part 365 of the Commission's regulations.

Rolling Hills states that copies of the application have been served upon the Securities and Exchange Commission and the Virginia State Corporation Commission.

Rolling Hills states that it will own or lease and operate an approximately 6 MW facility in Berks County, Pennsylvania. The facility is expected to commence commercial operations in August 2004.

Comment Date: February 3, 2004.

4. Fauquier Landfill Gas, LLC

[Docket No. EG04–31–000]

On January 13, 2004 Fauquier Landfill Gas, LLC (Fauquier), a Delaware limited liability company, with its principal place of business at Box 1017, Warrenton, Virginia, 20186, filed with the Federal Energy Regulatory Commission an application for a determination of exempt wholesale generator status pursuant to Part 365 of the Commission's regulations.

Fauquier states that copies of the application have been served upon the Securities and Exchange Commission and the Virginia State Corporation Commission.

Applicant will own or lease and operate an approximately 3 MW facility in Fauquier County, Virginia. The facility is expected to commence commercial operations in April 2004.

Comment Date: February 3, 2004.

5. Haviland Holdings, Inc., Complainant v. Southwest Power Pool, Inc., Respondent

[Docket No. EL04–54–000]

Take notice that on January 14, 2004, Haviland Holdings, Inc. (Haviland) submitted for filing a complaint against Southwest Power Pool, Inc. (Southwest) regarding Haviland's position in Southwest's transmission queue.

Comment Date: Febuary 5, 2004.

6. Haviland Holdings, Inc., Complainant v. Public Service Company of New Mexico, Respondent

[Docket No. EL04–55–000]

Take notice that on January 14, 2004, Haviland Holdings, Inc. tendered for filing a complaint against Public Service Company of New Mexico (PSC New Mexico) regarding Haviland's position in PSC New Mexico's transmission queue.

Comment Date: February 5, 2004.

7. Nordic Marketing, L.L.C., Nordic Energy, L.L.C., Nordic Marketing of Ohio, L.L.C., Nordic Marketing of Pennsylvania, L.L.C., Nordic Marketing of Illinois, L.L.C., Nordic Marketing of Massachusetts, L.L.C., Nordic Marketing of Michigan, L.L.C. , Nordic Marketing of New York, L.L.C., Nordic Marketing of New Jersey, L.L.C.

[Docket Nos. ER00–774–001, ER01–2311–001, ER03–885–001, ER03–887–001, ER03–888–001, ER04–263–001, ER04–264–001, ER04–265–001, and ER04–293–001]

Take notice that on January 12, 2004, the above referenced companies submitted a compliance filing in response to the Commission's November 17, 2003 Order Amending Market-based Rate Tariffs and Authorizations, in Docket Nos. EL01–118–000 and 001.

Comment Date: February 2, 2004.

8. Mobile Energy LLC

[Docket No. ER01–480–003]

Take notice that on January 12, 2004, Mobile Energy LLC submitted for filing its triennial updated market power analysis in compliance with the Commission Order in Docket No. ER01–480–000 issued on January 10, 2001.

Comment Date: February 2, 2004.

9. Hunlock Creek Energy Ventures

[Docket No. ER01–574–001]

Take notice that on January 8, 2004, Hunlock Creek Ventures (Energy Ventures) tendered for filing its triennial market power update and revised tariff sheets in response to the Commission November 17, 2003 Order Amending Market-based Rate tariffs and Authorizations in Docket Nos. EL01–118–000 and 001.

Comment Date: January 29, 2004.

10. New England Power Pool

[Docket No. ER03–345–002]

Take notice that on December 31, 2003, ISO New England Inc. (ISO) submitted a Status Report on Load Response Programs as directed by the Commission in its February 25, 2003, 102 FERC ¶ 61,202.

The ISO states that copies of the filing have been served on all parties to the above-captioned proceeding.

Comment Date: January 21, 2004.

11. Detroit Edison Company

[Docket Nos. ER04–14–001 and EL04–24–001]

Take notice that on December 22, 2003, Detroit Edison Company (Detroit Edison) submitted for filing with the Commission revised tariff sheets of its Ancillary Services Tariff to become effective as of December 2, 2003, the Commission's December 1, 2003 Order, clarifying the creditworthiness requirements in compliance with 105 FERC ¶ 61,264 (2003).

Comment Date: January 26, 2004.

12. American Electric Power Service Corporation

[Docket No. ER04–200–001]

Take notice that on January 12, 2004, EnviroPower, LLC (parent company of Kentucky Mountain Power, LLC) and Khanjee Holdings, LLC tendered for filing a request for deferment of the Cancellation of Service Agreement No. 312 under Companies of the American Electric Power System Open Access Tariff, FERC Electric Tariff Revised Volume 6 through December 31, 2004.

Comment Date: February 2, 2004.

13. University Park Energy, LLC

[Docket No. ER04–212–001]

Take notice that on January 12, 2004, University Park Energy, LLC (University Park) tendered for filing certain additional information to its application in Docket No. ER04–212–000 regarding its cost of service calculation of the black start rates contained in its proposed FERC Electric Tariff, Original Volume No. 2, a Black Start Service Agreement by and between University Park and Commonwealth Edison Company (ComEd) dated November 11, 2003.

University Park states that it mailed a copy of this filing to ComEd and the Illinois Commerce Commission.

Comment Date: January 23, 2004.

Morgan Stanley Capital Group Inc.

[Docket No. ER04–310–000]

Take notice that on December 17, 2003, Morgan Stanley Capital Group Inc. (MSCG), tendered for filing an amendment to rate schedule authorizing MSCG to engage in the sale of ancillary services at market-based rates.

Comment Date: January 26, 2004.

15. Southern California Edison Company

[Docket No. ER04–386–000]

Take notice, that on January 9, 2004, Southern California Edison Company (SCE) tendered for filing the Lasselle Street Wholesale Distribution Load Interconnection Facilities Agreement (Interconnection Agreement) and the Service Agreement for Wholesale Distribution Service (Service Agreement) between SCE and the City of Moreno Valley, California (Moreno Valley). SCE requests the Interconnection Agreement and the Service Agreement become effective on January 10, 2004.

SCE states that copies of this filing were served upon the Public Utilities Commission of State of California, and Moreno Valley.

Comment Date: January 30, 2004.

16. American Transmission Systems, Incorporated

[Docket No. ER04–387–000]

Take notice that on January 9, 2004, American Transmission Systems, Incorporated (ATSI) submitted for filing Service Agreement No. 343 a Construction Agreement for the Village of Genoa. ATSI requested an effective date of January 1, 2004 for the Construction Agreement.

ATSI states that copies of this filing were served on the representatives of the Village of Genoa, American Municipal Power-Ohio, Inc., Midwest ISO, and the Public Utilities Commission of Ohio.

Comment Date: January 30, 2004.

17. Lucky Lady Oil Company

[Docket No. ER04–388–000]

Take notice that on January 5, 2004, Lucky Lady Oil Company (Lucky Lady) petitioned the Commission for acceptance of Lucky Lady Oil Company Rate Schedule FERC No. 1; the granting of certain blanket approvals, including the authority to sell electricity at market-based rates; and the waiver of certain Commission regulations.

Lucky Lady states that it intends to engage in wholesale electric power and energy purchases and sales as a marketer. Lucky Lady further states that it is not in the business of generating or transmitting electric power.

Comment Date: January 30, 2004.

18. California Independent System Operator Corporation

[Docket No. ER04–389–000]

Take notice that on January 9, 2004, the California Independent System Operator Corporation (ISO) filed letter agreements with the Bonneville Power Administration (BPA), Reliant Energy Services (Reliant), and Sempra Energy Resources (Sempra). The ISO states that the letter agreements, which set forth dynamic scheduling arrangements between the ISO and these parties, are interim in nature pending the ISO's development of formal, generally applicable dynamic scheduling policies. The ISO notes that it is currently in the process of developing such policies and the new policies will apply to BPA, Reliant, and Sempra once they are finalized, as well as to all parties desiring dynamic scheduling arrangements.

The ISO states it has served copies of this filing on the California Public Utilities Commission, the California Energy Commission, the California Electricity Oversight Board, all parties with effective Scheduling Coordinator Service Agreements under the ISO Tariff, and the Participating Transmission Owners.

Comment Date: January 30, 2004.

19. Illinois Power Company

[Docket No. ER04–390–000]

Take notice that on January 9, 2004, Illinois Power Company (Illinois Power) tendered for filing Second Revised Interconnection Agreement entered into by Illinois Power and Dyenegy Midwest Generation, Inc. (designated as Second Revised Service Agreement No. 288). Illinois Power requests an effective date of January 1, 2004.

Comment Date: January 30, 2004.

20. PJM Interconnection L.L.C.

[Docket No. ER04–391–000]

Take notice that on January 9, 2004, PJM Interconnection, L.L.C. (PJM), submitted for filing an executed interconnection service agreement (ISA) among PJM, Fairless Energy, L.L.C., and PECO Energy Company and a notice of cancellation for an ISA that has been superceded. PJM requests a waiver of the Commission's 60-day notice requirement to permit a December 12, 2003 effective date for the ISA and the notice of cancellation.

PJM states that copies of this filing were served upon the parties to the agreements and the state regulatory commissions within the PJM region.

Comment Date: January 30, 2004.

21. Lincoln Electric System

[Docket No. OA04–1–000]

Take notice that on December 3, 2003, Lincoln Electric System (LES) pursuant to 18 CFR 35.28(e)(2) and Rule 207 of the Commission's Rules of Practice and Procedure, filed a petition requesting that the Commission waive the functional separation requirements of the standards of conduct set forth in Order 889, as modified in Order No. 2004.

Comment Date: February 13, 2004.

Standard Paragraph

Any person desiring to intervene or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's Web site at *http://www.ferc.gov*, using the "FERRIS" link. Enter the docket number excluding the last three digits in the docket number filed to access the document. For assistance, call (202) 502–8222 or TTY, (202) 502–8659. Protests and interventions may be filed electronically via the Internet in lieu of paper; see 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages electronic filings.

Magalie R. Salas,

Secretary.

[FR Doc. E4–99 Filed 1–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EC04–54–000, *et al.*]

Mesquite Investors, L.L.C., *et al.*; Electric Rate and Corporate Filings

January 16, 2004.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

1. Mesquite Investors, LLC, ANR Venture Management Company, Mohawk River Funding IV, LLC, Okwari IV, LLC

[Docket No. EC04–54–000]

Take notice that on January 15, 2004, Mesquite Investors, LLC (Mesquite), ANR Venture Management Company (ANRV), Mohawk River Funding IV, LLC (MRF IV) and Okwari IV, LLC (Okwari) (jointly, Applicants) filed with the Federal Energy Regulatory Commission an application pursuant to section 203 of the Federal Power Act for authorization for Mesquite and ANRV to sell their membership interests in MRF IV to Okwari IV. Applicants also requested privileged treatment for certain exhibits pursuant to 18 CFR 33.9 and 388.112.

Comment Date: February 5, 2004.

2. Midwest Independent Transmission System Operator, Inc.

[Docket No. ER04–392–000]

Take notice that on January 12, 2004, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) pursuant to section 205 of the Federal Power Act and section 35.12 of the Commission's regulations, 18 CFR 35.12 (2002), submitted for filing an Interconnection and Operating Agreement among Wisconsin Public Power Inc., the Midwest ISO and American Transmission Company LLC.

Midwest ISO states that a copy of this filing was served on all parties.

Comment Date: February 2, 2004.

3. Commonwealth Edison Company

[Docket No. ER04–393–000]

Take notice that on January 12, 2004, Commonwealth Edison Company (ComEd) submitted for filing two executed interconnection agreements. The first interconnection agreement is between ComEd and Zilkha Renewable Energy Midwest I, LLC and the second interconnection agreement is between ComEd and Zilkha I's affiliate, Zilkha Renewable Energy Midwest VI, LLC. ComEd states that pursuant to the Commission's Order No. 614, it has designated the interconnection agreements as Service Agreements No. 731 and 732, respectively, under ComEd's open access transmission service tariff, ComEd FERC Electric Tariff, Second Revised Volume No. 5.

Comment Date: February 2, 2004.

4. Public Service Company of New Mexico

[Docket No. ER04–394–000]

Take notice that on January 12, 2004, Public Service Company of New Mexico (PNM) submitted for filing an executed service agreement, dated January 1, 2004, for firm point-to-point transmission service and ancillary services, between PNM Transmission Development and Contracts (Transmission Provider) and PNM Wholesale Marketing (Transmission Customer), under the terms of PNM's Open Access Transmission Tariff. PNM requests an effective date of January 1, 2004, for each agreement.

PNM states that copies of the filing have been sent to PNM International Business Development, PNM Transmission Development and Contracts, the New Mexico Public Regulation Commission and the New Mexico Attorney General.

Comment Date: February 2, 2004.

5. Rochester Gas And Electric Corporation

[Docket No. ER04–395–000]

Take notice that on January 12, 2004, Rochester Gas and Electric Corporation (RG&E) tendered for filing with the Federal Energy Regulatory Commission an executed Interconnection Agreement between RG&E and Constellation Generation Group, LLC (CGG) that sets forth the terms and conditions governing the interconnection between RG&E 's transmission system and the Robert E. Ginna Nuclear Power Plant in Ontario County, New York, to be owned and operated by an affiliate of CGG.

RG&E states that copies of this filing have been served upon CGG, the New York State Public Service Commission, and the New York Independent System Operator, Inc.

Comment Date: February 2, 2004.

6. Entergy Services, Inc.

[Docket No. ER04–396–000]

Take notice that on January 12, 2004, Entergy Services, Inc., on behalf of Entergy Mississippi, Inc. (Entergy Mississippi), tendered for filing a Notice of Termination of the Interconnection and Operating Agreement and Generator Imbalance Agreement between Entergy Mississippi and LSP-Pike Energy, LLC.

Comment Date: February 2, 2004.

7. Wisconsin Public Service Corporation and Upper Peninsula Power Company

[Docket No. ER04–397–000]

Take notice that on January 12, 2004, Wisconsin Public Service Corporation (WPSC) and Upper Peninsula Power Company (UPPCO) submitted a Notice of Termination of Standards of Conduct. WPSC and UPPCO request a March 12, 2004, effective date.

WPSC and UPPCO state that copies of the filing were served upon the Michigan Public Service Commission, the Public Service Commission of Wisconsin, and American Transmission Company, LLC.

Comment Date: February 2, 2004.

Standard Paragraph

Any person desiring to intervene or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with rules 211 and 214 of the commission's rules of practice and procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's Web site at *http://www.ferc.gov*, using the "FERRIS" link. Enter the docket number excluding the last three digits in the docket number filed to access the document. For assistance, call (202) 502–8222 or TTY, (202) 502–8659. Protests and interventions may be filed electronically via the Internet in lieu of paper; *see* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages electronic filings.

Magalie R. Salas,

Secretary.

[FR Doc. E4–100 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP04–49–000]

Dominion Transmission, Inc.; Notice of Intent To Prepare an Environmental Assessment for the Proposed Fink Capacity Maintenance Project and Request for Comments on Environmental Issues and Notice of Site Visit

January 16, 2004.

The staff of the Federal Energy Regulatory Commission (FERC or Commission) will prepare an environmental assessment (EA) that will discuss the environmental impacts of the Fink Capacity Maintenance Project involving construction and operation of facilities by Dominion Transmission, Inc. (DTI) in the Fink Storage Field in Lewis County, West Virginia.[1] These facilities would consist of about 8.6 miles of various diameter pipeline and a launcher and receiver. This EA will be used by the Commission in its decision-making process to determine whether the project is in the public convenience and necessity.

If you are a landowner receiving this notice, you may be contacted by a pipeline company representative about the acquisition of an easement to construct, operate, and maintain the proposed facilities. The pipeline company would seek to negotiate a mutually acceptable agreement. However, if the project is approved by the Commission, that approval conveys with it the right of eminent domain. Therefore, if easement negotiations fail to produce an agreement, the pipeline company could initiate condemnation proceedings in accordance with State law.

A fact sheet prepared by the FERC entitled "An Interstate Natural Gas Facility On My Land? What Do I Need To Know?" was attached to the project notice DTI provided to landowners. This fact sheet addresses a number of typically asked questions, including the use of eminent domain and how to participate in the Commission's proceedings. It is available for viewing on the FERC Internet Web site (*www.ferc.gov*).

Summary of the Proposed Project

DTI proposes to protect the storage operation from migration of gas beyond the storage pool (Fink, Kennedy, and

[1] DTI's application was filed with the Commission under section 7 of the Natural Gas Act and part 157 of the Commission's regulations.

Lost Creek storage reservoirs [FKLC]) by expanding the active reservoir boundary and adding a protective boundary around the active storage pool boundary and control and capture storage gas moving from the FKLC gas storage pool into the Fink Oil Field. DTI proposes to accomplish this by converting 15 oil field wells to active storage withdrawal use only and connecting them to the existing Sweeney Compressor Station for recycling operation. DTI is not seeking to change either the capacity or the deliverability of the Fink Storage Field. DTI proposes to construct project facilities and activities over a phased period from 2004 through 2006:

- Retest 1,010 feet of an existing 20-inch-diameter line (TL–344) connecting to the existing Sweeney Compressor Station;
- Install and test two 6-inch-diameter well lines totaling about 1,850 feet;
- Install and test about 26,350 feet of 12-inch-diameter line (TL–343);
- Replace and test 18 existing well pipelines (about 9,750 feet of 4-inch-diameter line and about 6,600 feet of 6-inch-diameter line to be replaced with a 16,350-foot of 6-inch-diameter line);
- Utilize one pipe yard;
- Construct two launcher/receiver sites;
- Convert 15 wells to active storage use; and
- Expand the boundary of the storage reservoir by a total of about 3,163 acres in 7 areas.

DTI indicates that it would also install appurtenant facilities pursuant to section 2.55(a) of the Commission's regulations, and 12 1-inch-diameter lines on behalf of consumers under the Commission's part 157 pipeline blanket certificate authorized in Docket No. CP82–537–000. DTI indicates that it would at the request of a landowner abandon and remove about 1,340 feet of line H–19529 associated with an existing oil well. DTI indicates that this activity is not subject to the Commission's jurisdiction.

DTI indicates that the project would "protect the Fink storage operation from both migration of storage gas beyond the storage pool boundaries and third party drilling encroachment, by expanding the active reservoir boundary and adding a protective boundary around the active storage pool."

The location of the project facilities is shown in appendix 1.[2]

[2] The appendices referenced in this notice are not being printed in the **Federal Register**. Copies of all appendices, other than appendix 1 (maps), are available on the Commission's Web site at the "eLibrary" link or from the Commission's Public Reference and Files Maintenance Branch, 888 First Street, NE., Washington, DC 20426, or call (202) 502–8371. For instructions on connecting to eLibrary refer to the last page of this notice. Copies of the appendices were sent to all those receiving this notice in the mail.

[3] "We", "us", and "our" refer to the environmental staff of the Office of Energy Projects (OEP).

Land Requirements for Construction

Construction of the proposed facilities would disturb about 77.2 acres of land. Following construction, about 1.0 acre would be maintained as new aboveground facility sites.

The EA Process

The National Environmental Policy Act (NEPA) requires the Commission to take into account the environmental impacts that could result from an action whenever it considers the issuance of a Certificate of Public Convenience and Necessity. NEPA also requires us[3] to discover and address concerns the public may have about proposals. This process is referred to as "scoping". The main goal of the scoping process is to focus the analysis in the EA on the important environmental issues. By this Notice of Intent, the Commission requests public comments on the scope of the issues it will address in the EA. All comments received are considered during the preparation of the EA. State and local government representatives are encouraged to notify their constituents of this proposed action and encourage them to comment on their areas of concern.

The EA will discuss impacts that could occur as a result of the construction and operation of the proposed project under these general headings:

- Geology and soils;
- Land use;
- Water resources, fisheries, and wetlands;
- Cultural resources;
- Vegetation and wildlife;
- Air quality and noise;
- Endangered and threatened species;
- Hazardous waste;
- Public safety.

We will also evaluate possible alternatives to the proposed project or portions of the project, and make recommendations on how to lessen or avoid impacts on the various resource areas.

Our independent analysis of the issues will be in the EA. Depending on the comments received during the scoping process, the EA may be published and mailed to Federal, State, and local agencies, public interest groups, interested individuals, affected landowners, newspapers, libraries, and the Commission's official service list for this proceeding. A comment period will be allotted for review if the EA is published. We will consider all comments on the EA before we make our recommendations to the Commission.

To ensure your comments are considered, please carefully follow the instructions in the public participation section below.

Currently Identified Environmental Issues

We have already identified several issues that we think deserve attention based on a preliminary review of the proposed facilities and the environmental information provided by DTI. This preliminary list of issues may be changed based on your comments and our analysis.

- Blasting may be required in areas of the project.
- Five water wells would be located within 150 feet of the work areas.
- Residents may be affected by noise from completion work required for 15 well conversions.
- Crossing 51 perennial and 3 intermittent waterbodies, including Dry Fork, Wolf Run, Straight Run, and Fink Creek.
- Disturbing less than 0.3 acre of wetlands.
- Disturbing about 22 acres of forested land, 7.1 acres of which would be permanently converted to scrub/shrub or open land.
- Crossing potential habitat for the Indiana bat.

Also, we have made a preliminary decision to not address the impacts of the nonjurisdictional facilities. We will briefly describe their location and status in the EA.

Public Participation

You can make a difference by providing us with your specific comments or concerns about the project. By becoming a commentor, your concerns will be addressed in the EA and considered by the Commission. You should focus on the potential environmental effects of the proposal, alternatives to the proposal (including alternative locations/routes), and measures to avoid or lessen environmental impact. The more specific your comments, the more useful they will be. Please carefully follow these instructions to ensure that your comments are received in time and properly recorded:

- Send an original and two copies of your letter to: Magalie R. Salas, Secretary, Federal Energy Regulatory Commission, 888 First St., NE., Room 1A, Washington, DC 20426.
- Label one copy of the comments for the attention of Gas Branch 2.

• Reference Docket No. CP04–49–000.

• Mail your comments so that they will be received in Washington, DC on or before February 17, 2004.

Please note that we are continuing to experience delays in mail deliveries from the U.S. Postal Service. As a result, we will include all comments that we receive within a reasonable time frame in our environmental analysis of this project. However, the Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. *See* 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site at *http://www.ferc.gov* under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account which can be created on-line.

If you do not want to send comments at this time but still want to remain on our mailing list, please return the Information Request (appendix 4). If you do not return the Information Request, you will be taken off the mailing list.

Notice of Site Visit

The OEP staff will conduct a site visit on February 3, 2004, and if needed February 4, 2004, to inspect DTI's proposed route and potential alternative routes for the Fink Capacity Maintenance Project. The areas will be inspected by automobile. Representatives of DTI will accompany the OEP staff. Anyone interested in participating in the site visit should meet at Jackson's Mill Assembly Hall, Jackson Mill Road, Weston, West Virginia 26452, at 12 p.m. Participants must provide their own transportation.

For additional information, contact the Commission's Office of External Affairs at 1–866–208–FERC.

Becoming an Intervenor

In addition to involvement in the EA scoping process, you may want to become an official party to the proceeding known as an "intervenor". Intervenors play a more formal role in the process. Among other things, intervenors have the right to receive copies of case-related Commission documents and filings by other intervenors. Likewise, each intervenor must provide 14 copies of its filings to the Secretary of the Commission and must send a copy of its filings to all other parties on the Commission's service list for this proceeding. If you want to become an intervenor you must file a motion to intervene according to rule 214 of the Commission's rules of practice and procedure (18 CFR 385.214) (*see* appendix 2).[4] Only intervenors have the right to seek rehearing of the Commission's decision.

Affected landowners and parties with environmental concerns may be granted intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding which would not be adequately represented by any other parties. You do not need intervenor status to have your environmental comments considered.

Environmental Mailing List

An effort is being made to send this notice to all individuals, organizations, and government entities interested in and/or potentially affected by the proposed project. This includes all landowners who are potential right-of-way grantors, whose property may be used temporarily for project purposes, or who own homes within distances defined in the Commission's regulations of certain aboveground facilities. By this notice we are also asking governmental agencies, especially those in appendix 3, to express their interest in becoming cooperating agencies for the preparation of the EA.

Additional Information

Additional information about the project is available from the Commission's Office of External Affairs, at 1–866–208–FERC or on the FERC Internet Web site (*www.ferc.gov*) using the eLibrary link. Click on the eLibrary link, click on "General Search" and enter the docket number excluding the last three digits in the Docket Number field. Be sure you have selected an appropriate date range. For assistance with eLibrary, contact FERC On Line Support at 1–866–208–3676, TTY (202) 502–8659, or at *FERCOnlineSupport@ferc.gov*. The eLibrary link on the FERC Internet Web site also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission now offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries and direct links to the documents. Go to *www.ferc.gov/esubscribenow.htm*.

Finally, public meetings or site visits will be posted on the Commission's calendar located at *http://www.ferc.gov/EventCalendar/EventsList.aspx* along with other related information.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–106 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

[4] Interventions may also be filed electronically via the Internet in lieu of paper. *See* the previous discussion on filing comments electronically.

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP01–49–002]

Northwest Pipeline Corporation; Notice of Availability of the Amended Environmental Assessment for the Proposed Everett Delta Lateral Project

January 16, 2004.

The staff of the Federal Energy Regulatory Commission (FERC or Commission) issued an amended environmental assessment (EA) on the natural gas pipeline facilities proposed by Northwest Pipeline Corporation (Northwest) in the above-referenced docket on December 23, 2003.

The EA was prepared to satisfy the requirements of the National Environmental Policy Act. The staff concludes that approval of the proposed project, with appropriate mitigating measures, would not constitute a major Federal action significantly affecting the quality of the human environment.

The EA assesses the potential environmental effects of the construction and operation of the proposed Everett Delta Lateral Project including: 16-inch-diameter Lateral—The Everett Delta Lateral would consist of a 16-inch-diameter pipeline. It would begin at a new meter station (located at MP 1411.32 of Northwest's Ignacio to Sumas mainline) and extend approximately 9 miles to the west to the north end of the City of Everett. The alignment, with the exception of minor deviations, is the same as the alignment certificated by FERC in 2001. The beginning and end of the lateral would be equipped with permanent pig launching and receiving facilities. The maximum allowable operating pressure of the lateral would be 960 psig. The lateral would consist of the following:

• 9.19 miles of 16-inch-diameter pipeline

• Everett Delta Meter Station

• Pigging facilities at the beginning and end of the lateral

• Block valve at MP 4.44 (Soper Hill)

• Various valves and piping within the meter station site

The purpose of the revised Everett Delta Lateral Project is to install

facilities that would deliver natural gas from Northwest's Ignacio to Sumas mainline to PSE's distribution system in the City of Everett, Washington and surrounding communities by the fall of 2004. The facilities would be designed to measure and deliver up to approximately 113 million decatherms per day of natural gas on a firm basis.

The EA has been placed in the public files of the FERC. A limited number of copies of the EA are available for distribution and public inspection at: Federal Energy Regulatory Commission, Public Reference and Files Maintenance Branch, 888 First Street, NE., Room 2A, Washington, DC 20426, (202) 502–8371.

Copies of the EA have been mailed to Federal, State and local agencies, public interest groups, interested individuals, newspapers, and parties to this proceeding.

Any person wishing to comment on the EA may do so. To ensure consideration prior to a Commission decision on the proposal, it is important that we receive your comments before the date specified below. Please carefully follow these instructions to ensure that your comments are received in time and properly recorded:

- Send an original and two copies of your comments to: Secretary, Federal Energy Regulatory Commission, 888 First St., NE., Room 1A, Washington, DC 20426;
- Label one copy of the comments for the attention of the Gas Branch 2, PJ 11.2.
- Reference Docket No. CP01–49–002; and
- Mail your comments so that they will be received in Washington, DC, on or before January 23, 2003.

Please note that we are continuing to experience delays in mail deliveries from the U.S. Postal Service. As a result, we will include all comments that we receive within a reasonable time frame in our environmental analysis of this project. However, the Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site at *http://www.ferc.gov* under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account which can be created by clicking on "Sign-up."

Comments will be considered by the Commission but will not serve to make the commentor a party to the proceeding. Any person seeking to become a party to the proceeding must file a motion to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedures (18 CFR 385.214).[1] Only intervenors have the right to seek rehearing of the Commission's decision.

Affected landowners and parties with environmental concerns may be granted intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding which would not be adequately represented by any other parties. You do not need intervenor status to have your comments considered.

Additional information about the project is available from the Commission's Office of External Affairs, at 1–866–208–FERC or on the FERC Internet Web site (*www.ferc.gov*) using the eLibrary link. Click on the eLibrary link, click on "General Search" and enter the docket number excluding the last three digits in the Docket Number field. Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at 1–866–208–3676, or for TTY (202) 502–8659. The eLibrary link on the FERC Internet Web site also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission now offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries and direct links to the documents. Go to *www.ferc.gov*, click on "eSubscription" and then click on "Sign-up."

Linda Mitry,

Acting Secretary.

[FR Doc. E4–113 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 719–007 Washington]

Trinity Conservancy, Incorporated; Notice of Availability of Final Environmental Assessment

January 15, 2004.

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's regulations, 18 CFR part 380 (Order No. 486, 52 FR 47879), the Office of Energy Projects has reviewed the application for a subsequent license for the Trinity Hydroelectric Project, located on Phelps Creek and James Creek, tributaries of the Chiwawa River, in Chelan County, Washington, and has prepared a Final Environmental Assessment (FEA). The project occupies about 72 acres of land within the Wenatchee National Forest, administered by the U.S. Forest Service.

The FEA contains the staff's analysis of the potential environmental impacts of the project and concludes that licensing the project, with the appropriate environmental protective measures, would not constitute a major federal action that would significantly affect the quality of the human environment.

A copy of the FEA is on file with the Commission and is available for public inspection. The FEA may also be viewed on the Commission's Web site at *http://www.ferc.gov* using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at 1–866–208–3676, or for TTY, (202) 502–8659.

You may also register online at *http://www.ferc.gov/esubscribenow.htm* to be notified via e-mail of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support. For further information, contact Charles Hall at (202) 502–6853 or by E-mail at *charles.hall@ferc.gov*.

Magalie R. Salas,

Secretary.

[FR Doc. E4–102 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP04–97–000]

Equitrans, LP; Notice of Technical Conference

January 16, 2004.

In its Order issued December 31, 2003,[1] the Commission directed that a technical conference be held to discuss Equitrans, L.P's., proposals in regards to segmentation, gas quality, storage ratchet, security tracker and other

[1] Interventions may also be filed electronically via the Internet in lieu of paper. See the previous discussion in filing comments electronically.

[1] Equitrans, L.P., 105 FERC ¶ 61,407 (20

changes to the terms and conditions of service.

Take notice that a technical conference will be held on Monday February 2, 2004, at 10 a.m., in a room to be designated at the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

All interested parties and staff are permitted to attend. For further information please contact: Christy Walsh at (202) 502–6523.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–112 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP04–47–000]

High Island Offshore System, LLC; Notice of Technical Conference

January 16, 2004.

In its Order issued December 24, 2003,[1] the Commission directed that a technical conference be held to investigate High Island Offshore System's proposal to implement a Natural Gas Liquids Bank as part of its tariff.

Take notice that a technical conference will be held on Tuesday, February 3, 2004, at 10 a.m., in a room to be designated at the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

All interested parties and staff are permitted to attend.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–111 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. PL04–3–000]

Natural Gas Interchangeability; Notice of Public Conference

January 15, 2004.

1. The Federal Energy Regulatory Commission (FERC) will hold a conference on February 18, 2004, to engage industry members and the public in a dialogue about policy issues arising from natural gas interchangeability.[1] On October 14, 2003, the Commission held a technical conference on the findings and recommendations contained in the National Petroleum Council's report: *Balancing Natural Gas Policy—Fueling the Demands of a Growing Economy.*[2] The Summary Report recommended that the natural gas interchangeability standards be updated: "FERC and DOE should champion the new standards effort to allow a broader range of LNG [liquefied natural gas] imports. This should be conducted with participation from LDCs [local distribution companies], LNG purchasers, process gas users, and original equipment manufacturers (OEMs)."[3] In addition, the Commission has dealt with gas quality and interchangeability issues in several recent cases, and others are pending.[4] These cases will not be the subject of the technical conference nor will discussion of them be entertained, due to *ex parte* considerations. Nevertheless, as a result of the NPC recommendation and concerns about gas interchangeability raised in pending proceedings, it is clear that the Commission needs more information in order to evaluate what role, if any, it should prepare to take to address the impacts of natural gas interchangeability on the nation's energy consumers and the companies regulated by the Commission.

2. An agenda detailing the matters to be addressed and identifying speakers will be issued in the near future. In addition to direct presentations, the Commission will provide an open forum that will give all interested individuals an opportunity to respond to the presentations or present other views on the issues discussed.

3. The conference will be held on February 18, 2004, at FERC, 888 First Street, NE., in Washington, DC beginning at 9:30 a.m. in the Commission Meeting Room. The public is invited to attend. For further information about the conference, please call or e-mail Andrea Hilliard (202–502–8288; *andrea.hilliard@ferc.gov*) or Ed Murrell (202–502–8703; *ed.murrell@ferc.gov*).

4. The Capitol Connection offers the opportunity for remote listening and viewing of the conference. It is available for a fee, live over the Internet, via C-Band Satellite. Persons interested in receiving the broadcast, or who need information on making arrangements should contact David Reininger or Julia Morelli at the Capitol Connection (703–993–3100) as soon as possible or visit the Capitol Connection Web site at *http://www.capitolconnection.gmu.edu* and click on "FERC."

Magalie R. Salas,

Secretary.

[FR Doc. E4–103 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

[1] High Island Offshore System, L.L.

[1] As used by the gas industry, "interchangeability" means the extent to which a substitute gas can replace gas normally used by a customer without unduly interfering with the operation of the customer's natural gas equipment. *See* Cove Point LNG Limited Partnership, 97 FERC ¶ 61,043 (2001) at 61,197.

[2] The National Petroleum Council is an oil and natural gas advisory committee to the Secretary of Energy.

[3] National Petroleum Council, *Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy, Volume I, Summary of Findings and Recommendations*, September 2003, p. 64.

[4] *See Toca Producers* v. *Southern Natural Gas Company*, 104 FERC ¶ 61,300 (2003), and Natural Gas Pipeline Company of America, 104 FERC ¶ 61,322 (2003).

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RP03–398–000]

Northern Natural Gas Company; Notice of Informal Settlement Conference

January 16, 2004.

Take notice that an informal settlement conference will be convened in this proceeding commencing at 10 a.m. on Thursday, January 22, 2004, and continuing if necessary at 9 a.m. on Friday, January 23, 2004, at the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, for the purpose of exploring the possible settlement of the above-referenced docket.

Any party, as defined by 18 CFR 385.102(c), or any participant as defined by 18 CFR 385.102(b), is invited to attend. Persons wishing to become a party must move to intervene and receive intervenor status pursuant to the Commission's regulations (18 CFR 385.214).

For additional information, please contact Michael Cotleur (202) 502–8519 *michael.cotleur@ferc.gov*, William Collins (202) 502–8248 *william.collins@ferc.gov*, or Kevin Frank (202) 502–8065 *kevin.frank@ferc.gov*.

Linda Mitry,

Acting Secretary.

[FR Doc. E4–109 Filed 01–23–04; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7613–3]

Symposium on Recent Scientific Research Related to the Health Effects of Trichloroethylene

AGENCY: Environmental Protection Agency.

ACTION: Notice of public symposium.

SUMMARY: The National Center for Environmental Assessment (NCEA), a part of the U.S. Environmental Protection Agency's (EPA) Office of Research and Development, is sponsoring a two-day public symposium on recently published scientific research related to the health effects of trichloroethylene (TCE). Eastern Research Group, Inc., (ERG) an EPA contractor, is organizing and convening the symposium. EPA's goal is to hear from the scientists who are at the forefront of TCE-related research.

The symposium will consist of a series of invited presentations by a number of researchers from a variety of scientific fields who have recently published scientific findings related to the health effects of TCE. Because of the volume of published research, and due to funding and timing limitations, this symposium necessarily presents selected important new scientific research. At the end of each speaker's presentation, there will be a limited period for related questions from the audience. The focus of this symposium is published primary research, and no summary or conclusions are being sought about the health risks of TCE.

Members of the public may attend the symposium as observers, and may participate in question periods. Space is limited, and registrations will be accepted on a first-come, first-served basis.

A preliminary program agenda is available on the NCEA Web page at *http://www.epa.gov/ncea/*. A transcript of the symposium will be made available on the NCEA Web page after the meeting.

DATES: The symposium will be held Thursday, February 26, 2004, 8:30 a.m. to 5:30 p.m. and Friday, February 27, 2004, 8 a.m. to 3 p.m.

ADDRESSES: The symposium will be held at the Renaissance Mayflower Hotel, 1127 Connecticut Avenue, NW., Washington, DC 20036; telephone: (202) 347–3000. ERG, an EPA contractor, is organizing, convening, and conducting the symposium. To attend the symposium, please preregister by February 20, 2004. You may register on line at *https://www.ergweb.com/projects/tce/register.htm* or call ERG's conference registration line at (781) 674–7374.

FOR FURTHER INFORMATION CONTACT: For symposium information, registration, and logistics, contact the ERG Conference Group at (781) 674–7272, 110 Hartwell Avenue, Lexington, MA 02421; telephone: (781) 674–7272; facsimile: (781) 674–2906; e-mail: *meetings@erg.com* (referencing the TCE Symposium). For further information, the EPA contact is Dr. Weihsueh Chiu, telephone: (202) 564–7789; e-mail: *chiu.weihsueh@epa.gov*.

Dated: January 21, 2004.

Peter W. Preuss,

Director, National Center for Environmental Assessment.

[FR Doc. 04–1547 Filed 1–23–04; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[OPP–2003–0287; FRL–7341–2]

Thiram Risk Assessments; Notice of Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces the availability of documents that were developed as part of EPA's process for making pesticide reregistration eligibility decisions and tolerance reassessments consistent with the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act of 1996 (FQPA). These documents are the human health, and environmental fate and effects risk assessments, and related documents for thiram. Additionally, this notice starts a 60–day public comment period, during which the public is encouraged to provide information to help refine the risk assessments for thiram. Comments are to be limited to issues directly associated with thiram and raised by the risk assessment or other documents placed in the docket. By allowing access and opportunity for comment on the risk assessments, EPA is seeking to strengthen stakeholder involvement, and help ensure that the Agency's decisions under FQPA are transparent and based on the best available information.

DATES: Comments, identified by the docket ID number OPP–2003–0287 for thiram, must be received on or beforeMarch 26, 2004.

ADDRESSES: Comments may be submitted electronically, by mail, or through hand delivery/courier. Follow the detailed instructions as provided in Unit I. of the **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT: Craig Doty, Special Review and Reregistration Division (7508C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001; telephone number: (703) 308–0122; fax number: (703) 308–8041; e-mail address: *doty.craig@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does This Action Apply to Me?

This action is directed to the public in general. This action may, however, be of interest to persons who are or may be required to conduct testing of chemical substances under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) or the Federal Food, Drug, and Cosmetic Act (FFDCA); environmental, human health, and agricultural advocates; pesticide users; and the public interested in the use of pesticides. Since other entities may also be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

B. How Can I Get Copies of This Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under docket identification (ID) number OPP–2003–0287. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Public Information and Records Integrity Branch (PIRIB), Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA. This docket facility is open from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The docket telephone number is (703) 305–5805.

2. *Electronic access.* You may access this **Federal Register** document

electronically through the EPA Internet under the "Federal Register" listings at *http://www.epa.gov/fedrgstr/*.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket ID number.

Certain types of information will not be placed in the EPA Dockets. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket, but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EPA Dockets, the system will identify whether the document is available for viewing in EPA's electronic public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in Unit I.B. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

C. How and to Whom Do I Submit Comments?

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket ID number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in Unit I.D. Do not use EPA Dockets or e-mail to submit CBI or information protected by statute.

1. *Electronically.* If you submit an electronic comment as prescribed in this unit, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

i. *EPA Dockets.* Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at*http://www.epa.gov/edocket*, and follow the online instructions for submitting comments. Once in the system, select "search," and then key in docket ID number OPP–2003–0287. The system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. *E-mail.* Comments may be sent by e-mail to *opp-docket@epa.gov*, Attention: Docket ID Number OPP–2003–0287. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access" system. If you send an e-mail comment directly to the docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

iii. *Disk or CD ROM.* You may submit comments on a disk or CD ROM that you mail to the mailing address identified in Unit I.C.2. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

2. *By mail.* Send your comments to: Public Information and Records Integrity Branch (PIRIB) (7502C), Office of Pesticide Programs (OPP), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001, Attention: Docket ID Number OPP–2003–0287.

3. *By hand delivery or courier.* Deliver your comments to: Public Information and Records Integrity Branch (PIRIB), Office of Pesticide Programs (OPP), Environmental Protection Agency, Rm. 119, Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, Attention: Docket ID Number OPP–2003–0287. Such deliveries are only accepted during the docket's normal hours of operation as identified in Unit I.B.1.

D. How Should I Submit CBI to the Agency?

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public

docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

E. What Should I Consider as I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible.

2. Describe any assumptions that you used.

3. Provide any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at your estimate.

5. Provide specific examples to illustrate your concerns.

6. Offer alternatives.

7. Make sure to submit your comments by the comment period deadline identified.

8. To ensure proper receipt by EPA, identify the appropriate docket ID number in the subject line on the first page of your response. It would also be helpful if you provided the name, date, and **Federal Register** citation related to your comments.

II. What Action Is the Agency Taking?

EPA is making available risk assessments that have been developed as part of the Agency's public participation process for making reregistration eligibility and tolerance reassessment decisions for pesticides consistent with FFDCA, as amended by FQPA. The Agency's human health, and environmental fate and effects risk assessments, and other related documents for thiram are available in the individual pesticide docket, OPP–2003–0287. As additional comments, reviews, and risk assessment modifications become available, these will also be docketed for thiram.

The Agency cautions that refinements to the thiram risk assessments may be appropriate pending comments received. Risk assessment documents reflect only the work and analysis conducted as of the time they were produced and it is appropriate that, as new information becomes available and/or additional analyses are performed, the conclusions they contain may change.

EPA is providing an opportunity, through this notice, for interested parties to provide written comments and input to the Agency on the thiram risk assessments. Comments could address the availability of additional data to further refine the risk assessments, such as information on the extent and duration of use of products containing thiram. Comments could also address the Agency's risk assessment methodologies and assumptions applied to this specific chemical. Comments should be limited to issues raised within the risk assessment and associated documents. All comments should be submitted by March 26, 2004 using the methods in Unit I. of the **SUPPLEMENTARY INFORMATION**. Comments will become part of the Agency record for thiram.

List of Subjects

Environmental protection, Chemicals, Pesticides, Pests, Thiram.

Dated: December 23, 2003.

Debra Edwards,

Director, Special Review and Reregistration Division, Office of Pesticide Programs.

[FR Doc. 04–1550 Filed 1–23–04; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

[FRL–7612–6]

Proposed Administrative Cashout *Deminimis* Settlement Under Section 122(g) of the Comprehensive Environmental Response Compensation and Liability Act

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; request for public comment for the NL Industries (Taracorp) Site.

SUMMARY: In accordance with section 122(i) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA"), 42 U.S.C. 9622(i), notice is hereby given of a proposed administrative settlement for recovery of past and projected future response costs concerning the NL Industries (Taracorp) Site, with the total of 78 settling parties listed in the Supplementary Information portion of this notice. The settlement requires the settling parties to pay $1,960,888.51 to the Hazardous Substance Superfund.

The total cost of the cleanup is approximately $63 million. This number is the sum of EPA's past costs of approximately $43 million, plus costs incurred by certain potentially responsible parties of approximately $20 million. For purposes of settlement, site costs have been allocated approximately 50% to generators and 50% to owner/operators. Since all *deminimis* parties are generators, the *deminimis* percentage share of site costs is based on fifty percent of total site costs, or $30 million. Total future site costs were assigned a premium of 20%. Payment amounts for each *deminimis* generator's percentage share of volume contributed to the site.

Under the terms of the settlement, the *deminimis* generators who sign the Consent Order agree to pay their respective settlement amounts. In exchange for those payments, the United States covenants not to sue or take administrative action pursuant to sections 106 and 107(a) of CERCLA, 42 U.S.C. 9609 and 9607(a), relating to the Site. In addition, participating *deminimis* generators will be entitled to protection from contribution action or claims as provided by sections 113(f) and 122(g)(5) of CERCLA, 42 U.S.C. 9613(f) and 9622(g)(5), for all response costs incurred and to be incurred by any person at the Site.

For thirty (30) days following the date of publication of this notice, the Agency will accept written comments relating to the settlement. The Agency will consider all comments received and may modify or withdraw its consent to the settlement if comments received disclose facts or considerations which indicate that the settlement is inappropriate, improper, or inadequate. The Agency's response to any comments received will be available for public inspection at EPA's Region 5 Office at 77 West Jackson Boulevard, Chicago, Illinois 60604.

DATES: Comments must be submitted on or before February 25, 2004.

ADDRESSES: The proposed settlement is available for public inspection at EPA's Record Center, 7th floor, 77 W. Jackson Blvd., Chicago, Illinois 60604. A copy of the proposed settlement may be obtained from Larry L. Johnson, Associate Regional Counsel, U.S. EPA, Mail Code C–14J, 77 W. Jackson Blvd., Chicago, Illinois 60604, telephone (312) 886–6609. Comments should reference the NL Industries (Taracorp) Site, and should be addressed to Larry L. Johnson, Associate Regional Counsel, U.S. EPA, Mail Code C–14J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

FOR FURTHER INFORMATION CONTACT: Larry L. Johnson, Associate Regional Counsel, U.S. EPA, Mail Code C–14J, 77

W. Jackson Blvd., Chicago, Illinois 60604, telephone 312–886–6609.

SUPPLEMENTARY INFORMATION: The following is a list of the settling *deminimis* generators:

1. Mayfield Manufacturing Company f/k/a 3–H Industries
2. A. Edelstein & Sons
3. A.O. Smith Corporation
4. Ace Comb Company
5. Acme Iron & Metal Co.
6. Acro Sales & Engineering
7. Allied Metal Company
8. Amax Inc./Amax Lead & Zinc a/k/a Cyprus Amax Minerals Company
9. American National Can Company
10. Baker Iron & Metal
11. Ball Metal & Chemical
12. Barter Machinery & Supply Company
13. Ben Greenberg Company
14. Bill's Auto Parts
15. C.L. Downey Company
16. Braschnewitz Corp. n/k/a CNC Industries, Inc.
17. Cerro Copper Products Co.
18. Daimler-Chrysler Corporation
19. Crown Beverage Packaging, Inc. a/k/a Continental Can Company
20. Delhi Battery & Supply Co, Inc.
21. Douglas Battery Manufacturing Comp.
22. Dumes, Inc.
23. Elden R. Erikson & Sons, Inc.
24. Electro Battery Manufacturing Co.
25. Farmland Industries
26. Fisher Steel & Supply Co.
27. G & M Scrap Metal
28. Grossman Iron & Steel Company
29. Herman Strauss, Inc.
30. Houston Salvage
31. Industrial Electrical Equipment Co.
32. Intra-American Metals
33. J. Trockman & Sons
34. L. Kahn & Sons f/k/a L. Kahn & Son
35. La Salle Steel Company
36. Lear Corporation EEDS & Interiors f/k/a Bryan Manufacturing
37. Lewis Salvage Co.
38. M. Katch & Co. Inc.
39. McGraw Edison Company
40. Mallin Brothers Company
41. Marco Steel Supply
42. Martin Brothers Mill & Foundry Supply
43. McKinley Iron, Inc.
44. Miller Compressing Company
45. Milwaukee Scrap Metal Co.
46. Modine Manufacturing
47. Morris Tick Company
48. Northbrook Sports Club
49. Qwest f/k/a Northwestern Bell Telephone Company
50. Olin Corporation
51. Parks Pioneer Company, LLC f/k/a Parks Iron & Metal
52. The Peltz Group, Inc. f/k/a Peltz Brothers
53. Pequea Battery Company
54. General Mills, Inc./The Pillsbury Company a/k/a Pet, Inc.
55. Schering—Plough Healthcare Products, Inc. f/k/a Plough, Inc.
56. Newman/Allen Enterprises, Inc. f/k/a Sam Allen & Son, Inc.
57. College of the Ozarks f/k/a School of the Ozarks
58. Schuster Metals, Inc.
59. Senser Metal Company
60. Shapiro Sales Company
61. Shostak Iron & Metal Co., Inc.
62. Slesnick Iron & Metal
63. Southwestern Bell Telephone Company
64. Stewart-Warner Corp.
65. Omni Source Corp Foundry f/k/a Superior Companies, Inc.
66. The Board of Trustees of the University of Illinois
67. Versatile Metals
68. Vivo Iron & Metal
69. Wallach Iron & Metal Company
70. Willoughby Iron & Waste Material Co. $21,639.60
71. Westinghouse Air Brake Technologies Corporation—Wabtec f/k/a—Young Radiator Company
72. Parkans International, Inc.
73. Sherwin—Williams
74. Rankin Technical Institute
75. Crown Cork & Seal Corporation

Settling Federal Agencies

1. General Services Administration
2. Department of Energy (Stanford Linear Accelerator)
3. Bureau of Prisons (Unicor Federal Prison Industries, Inc.)

Dated: January 9, 2004.

Wendy L. Carney,

Acting Director, Superfund Division.

[FR Doc. 04–1546 Filed 1–23–04; 8:45 am]

BILLING CODE 6560–50–P

FARM CREDIT ADMINISTRATION

Farm Credit Administration Board; Regular Meeting

AGENCY: Farm Credit Administration.

SUMMARY: Notice is hereby given, pursuant to the Government in the Sunshine Act (5 U.S.C. 552b(e)(3)), that the February 12, 2004 regular meeting of the Farm Credit Administration Board (Board) will not be held. The FCA Board will hold a special meeting at 9 a.m. on Tuesday, February 10, 2004. An agenda for this meeting will be published at a later date.

FOR FURTHER INFORMATION CONTACT: Jeanette C. Brinkley, Secretary to the Farm Credit Administration Board, (703) 883–4009, TTY (703) 883–4056.

ADDRESSES: Farm Credit Administration, 1501 Farm Credit Drive, McLean, Virginia 22102–5090.

Dated: Janary 22, 2004.

Jeanette C. Brinkley,

Secretary, Farm Credit Administration Board.

[FR Doc. 04–1624 Filed 1–22–04; 10:45 am]

BILLING CODE 6703–01–P

FEDERAL COMMUNICATIONS COMMISSION

Public Information Collection Approved by Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice.

SUMMARY: The Federal Communications Commission received Office of Management and Budget (OMB) approval for the public information collections FCC Form 321, Aeronautical Frequency Notification, (OMB Control No. 3060–0310); FCC Form 322 Cable Community Registration, (OMB Control No. 3060–0331); FCC Form 324, Operator, Mail Address, and Operational Information Changes, (OMB Control No. 3060–1045 (new collection)); and FCC Form 327, Application for Cable Television Relay Service Station (CARS) Authorization, (OMB Control No. 3060–0055).

DATES: Effective dates for these public information collections are November 3, 2003 for OMB 3060–0055 (FCC 327); December 1, 2003 for OMB 3060–0310 (FCC 324) and OMB 3060–1045 (FCC 324) and December 10 for OMB 3060–0331 (FCC 321).

FOR FURTHER INFORMATION CONTACT: Wayne T. McKee, Media Bureau, (202) 418–2355.

SUPPLEMENTARY INFORMATION: The Federal Communications Commission received OMB approval for FCC Form 321 Aeronautical Frequency Notification, (OMB Control No. 3060–0331), FCC Form 322, Cable Community Registration, (OMB Control No. 3060–0310), FCC Form 324, Operator, Mail Address, and Operational Information Changes, (OMB Control No. 3060–1045 (new collection)), and FCC Form 327, Application for Cable Television Relay Service Station (CARS) Authorization, (OMB Control No. 3060–0055) . Therefore, the Commission announces that the effective dates for these public information collections are November 3, 2003 for OMB 3060–0055 (FCC 327); December 1, 2003 for OMB 3060–0310 (FCC 324) and OMB 3060–1045 (FCC 324) and December 10 for OMB 3060–0331 (FCC 321).

Pursuant to the Paperwork Reduction Act of 1995, Pub. L. 104–13, an agency

may not conduct or sponsor a collection of information unless it displays a currently valid control number. Notwithstanding any other provisions of law, no person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid control number. Questions concerning this revised information collection should be directed to Leslie F. Smith, Federal Communications Commission, (202) 418–0217 or via the Internet at *Leslie.Smith@fcc.gov.*

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. 04–1530 Filed 1–23–04; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[Report No. 2640–Correction]

Petition for Reconsideration and Clarification of Action In Rulemaking Proceedings

January 7, 2003.

Petitions for Reconsideration and Clarification have been filed in the Commission's Rulemaking proceedings listed in this Public Notice and published pursuant to 47 CFR 1.429(e). The full text of this document is available for viewing and copying in Room CY–A257, 445 12th Street, SW., Washington, DC, or may be purchased from the Commission's copy contractor, Qualex International (202) 863–2893. Oppositions to these petitions must be filed by February 10, 2004. *See* 1.4(b)(1) of the Commission's rules (47 CFR 1.4(b)(1)). Replies to an opposition must be filed within 10 days after the time for filing oppositions have expired.

Subject: In the Matter of the Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996 (CC Docket No. 96–128).

Number of Petitions Filed: 4.

* This is a correction to Report #2640, released on December 23, 2003, to include an additional petition which was inadvertently omitted from CC Docket No. 96–128. The dates for filing oppositions will be extended to 15 days from the date of publication of this notice in the **Federal Register**. Replies to an opposition will be extended to 10 days after the time for filing oppositions has expired.

Marlene H. Dortch,

Secretary.

[FR Doc. 04–1529 Filed 1–23–04; 8:45 am]

BILLING CODE 6712–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 2003N–0404]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Human Tissue Intended for Transplantation

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by February 25, 2004.

ADDRESSES: OMB is still experiencing significant delays in the regular mail, including first class and express mail, and messenger deliveries are not being accepted. To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: Fumie Yokota, Desk Officer for FDA, FAX: 202–395–6974.

FOR FURTHER INFORMATION CONTACT: JonnaLynn P. Capezzuto, Office of Management Programs (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–4659.

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Human Tissue Intended for Transplantation—21 CFR Part 1270 (OMB Control Number 0910–0302)—Extension

Under section 361 of the Public Health Service Act (42 U.S.C. 264), FDA issued regulations to prevent the transmission of human immunodeficiency virus (HIV), hepatitis B, and hepatitis C, through the use of human tissue for transplantation. The regulations provide for inspection by FDA of persons and tissue establishments engaged in the recovery, screening, testing, processing, storage, or distribution of human tissue. These facilities are required to meet provisions intended to ensure appropriate screening and testing of human tissue donors and to ensure that records are kept documenting that the appropriate screening and testing have been completed.

Section 1270.31(a) through (d) (21 CFR 1270.31(a) through (d)) require written procedures to be prepared and followed for the following steps: (1) All significant steps in the infectious disease testing process, (2) all significant steps in reviewing the relevant medical record of the donor, (3) designating and identifying quarantined tissue, and (4) for prevention of infectious disease contamination or cross-contamination by tissue during processing. Section 1270.31(a) and (b) also require recording and justification of any deviation from the written procedures. Section 1270.33(a) (21 CFR 1270.33(a)) requires records to be maintained concurrently with the performance of each significant step in the procedures of infectious disease screening and testing of human tissue donors. Section 1270.33(f) requires records to be retained regarding the determination of the suitability of the donors and such records required under 21 CFR 1270.21. Section 1270.33(h) requires all records be retained at least 10 years beyond the date of transplantation, distribution, disposition, or expiration of the tissue, whichever is latest. Section 1270.35 (21 CFR 1270.35) requires specific records be maintained to document the following outcomes: (1) The results and interpretation of all required infectious disease tests and results, (2) the identity and relevant medical records of the donor, (3) the receipt and distribution of human tissue, and (4) the destruction or other disposition of human tissue.

Respondents to this collection of information are manufacturers of human tissue intended for transplantation. Based on information from FDA's Center for Biologics Evaluation and Research (CBER) database system, the agency estimates that there are approximately 300 tissue establishments of which 166 are conventional tissue banks and 134 are eye tissue banks. Based on information provided by industry, there are an estimated total of 750,000 conventional tissue products and 94,186 eye tissue products recovered per year with an average of 25 percent of the tissue discarded due to

unsuitability for transplant. In addition, there are an estimated 20,000 donors of conventional tissue and 47,796 donors of eye tissue each year.

Accredited members of the American Association of Tissue Banks (AATB) and Eye Bank Association of America (EBAA) adhere to standards of those organizations that are comparable to the recordkeeping requirement in part 1270 (21 CFR part 1270). Based on information provided by industry associations, 50 to 75 percent (average 63 percent) of the conventional tissue banks are members of AATB (166 x 63 percent = 105), and 99 percent of eye tissue banks are members of EBAA (134 x 99 percent = 133). Therefore, recordkeeping by these 238 establishments (105 + 133 = 238) is excluded from the burden estimates as usual and customary business activities (5 CFR 1320.3(b)(2)). The recordkeeping burden, thus, is estimated for the remaining 62 establishments, which is 21 percent of all establishments (300 - 238 = 62, or 62/300 = 21 percent).

Based on CBER's database system and information provided by industry, FDA estimates an average of two new tissue banks annually, which may be nonmembers of a trade association. Each new tissue bank requires an estimated 64 hours to prepare standard operating procedures (SOPs) under § 1270.31(a) through (d). The requirement for the development of these written procedures is considered an initial one-time burden. FDA assumes that all current tissue establishments have developed written procedures in compliance with part 1270. Therefore, their information collection burden is for the general review and update of written procedures estimated to take an annual average of 24 hours, and for the recording and justifying of any deviations from the written procedures for § 1270.31(a) and (b), estimated to take an annual average of 1 hour. The information collection burden for maintaining records concurrently with the performance of each significant screening and testing step and for retaining records for 10 years under § 1270.33(a), (f), and (h), include documenting the results and interpretation of all required infectious disease tests and results and the identify and relevant medical records of the donor required under § 1270.35(a) and (b). Therefore, the burden under these provisions is calculated together in table 1 of this document. The recordkeeping estimates for the number of total annual records and hours per record are based on information provided by industry and FDA experience.

In the **Federal Register** of October 1, 2003 (68 FR 56635), FDA published a 60-day notice requesting public comment on the information collection provisions. No comments were received.

TABLE 1.—ESTIMATED ANNUAL RECORDKEEPING BURDEN[1]

21 CFR Section	No. of Recordkeepers	Annual Frequency per Recordkeeping	Total Annual Records	Hours per Record	Total Hours
1270.31(a) through (d)	2	1	2	64	128
1270.31(a) through (d)[2]	62	1	62	24	1,488
1270.31(a) and (b)[3]	62	2	124	1	124
1270.33(a), (f), and (h) and 1270.35(a) and (b)	62	3,089	191,518	1	191,518
1270.35(c)	62	5,719	354,578	1	354,578
1270.35(d)	62	715	44,330	1	44,330
Total					592,166

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.
[2] Review and update of standard operating procedures (SOPs).
[3] Documentation of deviations from SOPs.

Dated: January 16, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04–1493 Filed 1–23–04; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 2003N–0329]

Agency Information Collection Activities: Submission for Office of Management and Budget Review; Comment Request; Guidance for Industry on How To Use E-Mail To Submit Information to the Center for Veterinary Medicine

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by February 25, 2004.

ADDRESSES: OMB is still experiencing significant delays in the regular mail, including first class and express mail, and messenger deliveries are not being accepted. To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: Fumie Yokota, Desk Officer for FDA, FAX: 202–395–6974.

FOR FURTHER INFORMATION CONTACT: Denver Presley, Office of Management

Programs (HFA–250), Food and Drug Administration, 5600 Fishers Lane, rm. 4B–41, Rockville, MD 20857, 301–827–1472.

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Guidance for Industry on How to Use E-Mail to Submit Information to the Center for Veterinary Medicine, 21 CFR 11.2—(OMB Control N0. 0910–0454)—Extension

The Center for Veterinary Medicine (CVM) is responsible for developing and administering guidances that explain how to adhere to the electronic records; electronic signatures regulations (part 11 (21 CFR part 11)). These regulations allow sponsors to submit part or all of records to FDA electronically in lieu of paper, unless the paper records are specifically required by regulation, if the requirements of part 11 are met, and the documents to be submitted electronically are identified in Public Docket No. 92S–0251. These regulations comply with the Government Paperwork Elimination Act (GPEA) (Public Law 105–277). The GPEA requires Federal agencies, by October 21, 2003, to give persons who are required to maintain, submit, or disclose information the option of doing so electronically when practicable as a substitute for paper.

This guidance document describes the procedures persons who submit information to CVM should follow, if they want to file submissions electronically. This guidance instructs those who wish to submit information to CVM by e-mail to first register with the center. Registration entails sending a letter, on paper or electronically, to CVM with a sponsor password and the names, phone numbers, mail and e-mail addresses of a sponsor coordinator and each person who will submit information electronically to CVM. Other information collection provisions relate to electronic submissions by individuals and electronic submissions to make changes to the sponsor's registration. CVM will use all the information submitted to process electronic submissions. The likely respondents to this collection of information are new animal drug sponsors.

In the **Federal Register** of August 7, 2003 (68 FR 47077), FDA published a 60-day notice requesting public comment on the information collection provisions. No comments were received.

We estimate the burden for this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN[1]

FDA Form No.	No. of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
3,538	70	2	140	.5	70

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

The estimate of the times required for record preparation is based on agency communication with industry. Other information needed to calculate the total burden hours are derived from agency records and experience.+

Dated: January 16, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04–1494 Filed 1–23–04; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 2003N–0327]

Agency Information Collection Activities; Submission for Office of Management and Budget Review; Comment Request; Guidance for Industry on How To Use E-Mail To Submit a Request for a Meeting or Teleconference to the Office of New Animal Drug Evaluation

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a proposed collection of information has been submitted to the Office of Management and Budget (OMB) for review and clearance under the Paperwork Reduction Act of 1995.

DATES: Fax written comments on the collection of information by February 25, 2004.

ADDRESSES: OMB is still experiencing significant delays in the regular mail, including first class and express mail, and messenger deliveries are not being accepted. To ensure that comments on the information collection are received, OMB recommends that written comments be faxed to the Office of Information and Regulatory Affairs, OMB, Attn: Fumie Yokota, Desk Officer for FDA, FAX: 202–395–6974.

FOR FURTHER INFORMATION CONTACT: Denver Presley, Office of Management Programs (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–1472.

SUPPLEMENTARY INFORMATION: In compliance with 44 U.S.C. 3507, FDA has submitted the following proposed collection of information to OMB for review and clearance.

Guidance for Industry on How To Use E-Mail To Submit a Request for a Meeting or Teleconference to the Office of New Animal Drug Evaluation—(OMB Control Number 0910–0452)—Extension

Any person intending to file a new animal drug application or abbreviated application is entitled to request meetings and/or teleconferences to reach agreement regarding a submission or investigational requirement (21 U.S.C. 3606(b)(3)). Every person outside the Federal Government may request a meeting with representative(s) of FDA to discuss a matter (21 CFR 10.65(c)).

Sponsors often meet with scientists in the Center for Veterinary Medicine's (CVM) Office of New Animal Drug Evaluation to formulate a rational approach to studies to be conducted and to discuss how to meet the statutory requirements for new animal drug approval under section 512 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360b). Requests for meetings and teleconferences are currently submitted on paper to CVM.

This guidance document describes the procedure for persons to submit a request for a meeting or teleconference electronically on FDA Form 3489. The information sponsors should include on the form includes the sponsor's name and address, a list of agency participants, an agenda, and notification of audio-visual equipment that will be

needed. The form has been updated to allow sponsors to indicate whether the request amends a previous request for a meeting and to allow for consistency across forms. The likely respondents to this collection of information are new animal drug sponsors.

In the **Federal Register** of August 7, 2003 (68 FR 47079), FDA published a 60-day notice requesting public comment on the information collection provisions. No comments were received.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN[1]

Form No.	No. of Respondents	Annual Frequency per Respondent	Total Annual Responses	Hours per Response	Total Hours
3489	12	14	168	0.69	116

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Dated: January 16, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04–1502 Filed 1–23–04; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

Transmissible Spongiform Encephalopathies Advisory Committee; Notice of Meeting

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

This notice announces a forthcoming meeting of a public advisory committee of the Food and Drug Administration (FDA). The meeting will be open to the public.

Name of Committee: Transmissible Spongiform Encephalopathies Advisory Committee.

General Function of the Committee: To provide advice and recommendations to the agency on FDA's regulatory issues.

Date and Time: The meeting will be held on February 12, 2004, from 8 a.m. to 5:30 p.m., and on February 13, 2004, from 8 a.m. to 3:30 p.m.

Location: Holiday Inn, 8777 Georgia Ave., Silver Spring, MD.

Contact Person: William Freas or Sheila D. Langford, Center for Biologics Evaluation and Research (HFM–71), Food and Drug Administration, 1401 Rockville Pike, Rockville, MD 20852–1448, 301–827–0314, or FDA Advisory Committee Information Line, 1–800–741–8138 (301–443–0572 in the Washington, DC area), code 3014512392. Please call the Information Line for up-to-date information on this meeting.

Agenda: On February 12, 2004, the committee will hear an informational presentation on a presumptive transfusion-transmitted case of variant Creutzfeldt-Jakob Disease (vCJD) reported recently in the United Kingdom, and hear updates on related experimental studies in animals on transmission of transmissible spongiform encephalopathies (TSE) agents by blood, and relevant epidemiology of human TSEs. In the afternoon, the committee will receive an update on the case of bovine spongiform encephalopathy (BSE) recently recognized in the United States, and will have a general discussion about potential models of risk-based approaches to sourcing of bovine materials used to make medical products. On February 13, 2004, the committee will have a preliminary discussion about FDA's current recommendations on measures to minimize risk from TSE agents in various types of medical products.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Written submissions may be made to the contact person by February 5, 2004. Oral presentations from the public will be scheduled between approximately 11:30 a.m. and 12 noon, and 3 p.m. and 3:30 p.m. on February 12, 2004; and between 11 a.m. and 12 noon on February 13, 2004. Time allotted for each presentation may be limited. Those desiring to make formal oral presentations should notify the contact person before February 9, 2004, and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation.

Persons attending FDA's advisory committee meetings are advised that the agency is not responsible for providing access to electrical outlets.

FDA welcomes the attendance of the public at its advisory committee meetings and will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please contact William Freas or Sheila D. Langford at least 7 days in advance of the meeting.

Notice of this meeting is given under the Federal Advisory Committee Act (5 U.S.C. app. 2).≤

Dated: January 16, 2004.

Peter J. Pitts,

Associate Commissioner for External Relations.

[FR Doc. 04–1495 Filed 1–23–04; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 2003D–0570]

Request for Comments on a Draft Guidance on the Clinical Evaluation of Weight-Control Drugs

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is requesting comments on a previously published draft guidance that has never been finalized. The draft guidance entitled "Guidance for the Clinical Evaluation of Weight-Control Drugs" was issued September 24, 1996. The draft guidance gives recommendations for the design and conduct of phase 1–3 clinical studies aimed at demonstrating the efficacy and safety of weight-loss medications. The agency would like to revise this document for republication as a draft. Before it does this, the agency would like interested persons to review and submit comments on the 1996 draft guidance document.

DATES: Submit written or electronic comments on the draft guidance by April 26, 2004. General comments on agency guidance documents are welcome at any time.

ADDRESSES: Submit written requests for single copies of this guidance to the Office of Drug Information (HFD–240), Center for Drug Evaluation and

Research, Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857. Send one self-addressed adhesive label to assist that office in processing your requests. Submit written comments on the guidance to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to *http://www.fda.gov/dockets/ecomments*. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance document.

FOR FURTHER INFORMATION CONTACT: Oluchi Elekwachi, Center for Drug Evaluation and Research (HFD–510), Food and Drug Administration, 1401 Rockville Pike, Rockville, MD 20852–1448, 301–827–6381.

SUPPLEMENTARY INFORMATION:

I. Background

Weight-loss medications approved by FDA before the 1990s, such as phentermine and diethylpropion, are indicated for the short-term (a few weeks) treatment of obesity. The short-term indication reflects the now rejected belief that drug-induced weight loss will be maintained after the medication is stopped. In recent years, it has become clear that the successful treatment of obesity, with or without pharmacologic intervention, requires long-term, if not chronic, therapy.

In 1995, FDAs Division of Metabolic and Endocrine Drug Products convened an expert advisory panel to discuss the development of weight-loss drugs indicated for the long-term treatment of obesity. The discussions at this meeting formed the basis for a draft guidance document entitled "Guidance for the Clinical Evaluation of Weight-Control Drugs," which was made available on September 24, 1996. Two of the more important recommendations made in the draft guidance relate to the duration of the phase 3 trials and the criteria used to define efficacy.

FDA is interested in incorporating the latest scientific advances in the field of obesity and drug development into an amended obesity guidance document. Once the draft has been revised, it will be issued again for comment before finalization. To that end, interested parties are encouraged to submit comments on the 1996 draft obesity guidance.

This request for comments on the 1996 draft guidance is being issued consistent with FDAs good guidance practices (GGPs) regulation (21 CFR 10.115). The draft guidance, when finalized, will represent the agency's current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirement of the applicable statutes and regulations.

II. Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding the draft guidance. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in the brackets in the heading of this document. A copy of received comments are available for public examination in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

III. Electronic Access

Persons with access to the Internet may obtain the draft guidance at either *http://www.fda.gov/cder/guidance/index.htm* or *http://www.fda.gov/ohrms/dockets/default.htm*.

Dated: January 6, 2004.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 04–1496 Filed 1–23–04; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–4903–N–01]

Notice of Submission of Proposed Information Collection to OMB: Single Family Premium Collection Subsystem-Upfront

AGENCY: Office of the Chief Information Officer, HUD.

ACTION: Notice.

SUMMARY: The proposed information collection requirement described below has been submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act. The Department is soliciting public comments on the subject proposal.

The Single Family Premium Collection Subsystem-Upfront (SFPCS–U) is used by lenders to remit Upfront Mortgage Insurance Premiums using funds obtained from the borrower during the closing of the mortgage transaction at settlement.

DATES: *Comments Due Date:* February 25, 2004.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments should refer to the proposal by name and OMB approval number (2502–0423) and should be sent to: Melanie Kadlic, OMB Desk Officer, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503; Fax number (202) 395–6974; E-mail *Melanie_Kadlic@omb.eop.gov*.

FOR FURTHER INFORMATION CONTACT: Wayne Eddins, Reports Management Officer, AYO, Department of Housing and Urban Development, 451 Seventh Street, Southwest, Washington, DC 20410; e-mail *Wayne_Eddins@HUD.gov;* telephone (202) 708–2374. This is not a toll-free number. Copies of the proposed forms and other available documents submitted to OMB may be obtained from Mr. Eddins or on HUD's Web site at *http://www5.hud.gov:63001/po/i/icbts/collectionsearch.cfm*.

SUPPLEMENTARY INFORMATION: The Department has submitted the proposal for the collection of information, as described below, to OMB for review, as required by the Paperwork Reduction Act (44 U.S.C. Chapter 35). The Notice lists the following information: (1) The title of the information collection proposal; (2) the office of the agency to collect the information; (3) the OMB approval number, if applicable; (4) the description of the need for the information and its proposed use; (5) the agency form number, if applicable; (6) what members of the public will be affected by the proposal; (7) how frequently information submissions will be required; (8) an estimate of the total number of hours needed to prepare the information submission including number of respondents, frequency of response, and hours of response; (9) whether the proposal is new, an extension, reinstatement, or revision of an information collection requirement; and (10) the name and telephone number of an agency official familiar with the proposal and of the OMB Desk Officer for the Department.

This Notice also lists the following information:

Title of Proposal: Single Family Premium Collection Subsystem-Upfront.

OMB Approval Number: 2502–0423.

Form Numbers: None.

Description of the Need for the Information and Its Proposed Use: The Single Family Premium Collection Subsystem-Upfront (SFPCS–U) is used by lenders to remit Upfront Mortgage Insurance Premiums using funds obtained from the borrower during the closing of the mortgage transaction at settlement.

Respondents: Business or other for-profit.

Frequency of Submission: On occasion.

	Number of respondents	Annual responses	×	Hours per response	=	Burden hours
Reporting Burden	9,939	135		0.82		111,990

Total Estimated Burden Hours: 111,990.

Status: Extension of a currently approved collection.

Authority: Section 3507 of the Paperwork Reduction Act of 1995, 44 U.S.C. 35, as amended.

Dated: January 16, 2004.

Wayne Eddins,

Departmental Reports Management Officer, Office of the Chief Information Officer.

[FR Doc. 04–1579 Filed 1–23–04; 8:45 am]

BILLING CODE 4210–72–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

AGENCY: Fish and Wildlife Service, Department of the Interior.

ACTION: Notice of availability of the Draft Comprehensive Conservation Plan/Environmental Assessment for Hobe Sound National Wildlife Refuge, located in Martin County, Florida.

SUMMARY: The Fish and Wildlife Service announces that a Draft Comprehensive Conservation Plan/Environmental Assessment for Hobe Sound National Wildlife Refuge is available for review and comment. This document has been prepared pursuant to the National Wildlife Refuge System Improvement Act of 1997, and the National Environmental Policy Act of 1969. It describes the Service's proposal for managing the refuge over the next 15 years.

DATES: A public meeting will be held to present the plan and obtain comments. The date, time, and location of this meeting will be announced via the local media and by special mailings. For information concerning the meeting, contact the Hobe Sound National Wildlife Refuge at 772/546–6141.

Comments regarding the draft plan must be received within 45 days following the date of this notice. Comments should be sent to David Erickson, Fish and Wildlife Service, 1875 Century Boulevard, Suite 420, Atlanta, GA 30345, or you may send your comments by electronic mail to *david_erickson@fws.gov,* with a subject line, "Comments: HSNWR." Please include your name and return address in the message.

ADDRESSES: You may request a copy of the draft plan by writing Mr. Erickson at the above address or by calling 404/679–7176. The draft plan/environmental assessment may also be accessed and downloaded from the Service's Internet Web site: *http://southeast.fws.gov/planning.* If you wish to be placed on the mailing list to receive future information about the plan, we must have your written permission, since under the Freedom of Information Act of 1974, Federal government mailing lists must be released to the public upon request.

FOR FURTHER INFORMATION CONTACT: Margo Stahl, Refuge Manager, Hobe Sound National Wildlife Refuge, P.O. Box 645, Hobe Sound, FL 33475–0645; Telephone: 772/546–6141.

SUPPLEMENTARY INFORMATION: The 1,160-acre Hobe Sound National Wildlife Refuge is important for the conservation of threatened and endangered species, namely nesting loggerhead, green, and leatherback sea turtles on the Jupiter Island portion of the refuge, as well as more than 40 other rare species including the gopher tortoise, scrub jay, and eastern indigo snake; and wildlife and plants associated with the sand pine scrub community on the mainland portion of the refuge. The West Indian manatee and other aquatic species are associated with the Indian River Lagoon, a national estuary that bisects the refuge.

The environmental assessment evaluated four alternatives for addressing key management issues at the refuge: Alternative 1, Maintain Current Management; Alternative 2, Ecosystem Emphasis; Alternative 3, Biological Emphasis; and Alternative 4, Public Use Emphasis. Alternative 2, Ecosystem Emphasis, is the proposed action for managing the refuge.

Among the many benefits to threatened and/or endangered species described in the proposed action are the restoration of sand pine scrub; the restoration of Atlantic coastal dune and mangrove and hammock systems; the reduction of sea turtle predation to significantly improve hatchling survival; and the inventorying and monitoring of federal trust and state-listed species. Key to plan implementation is the development of partnerships with agencies and organizations; the addition of staff and new administrative facilities; the expansion of educational programs at the Hobe Sound Nature Center; and the development of wildlife-dependent recreational opportunities—all in keeping with a wildlife conservation mandate.

Authority: This notice is published under the authority of the National Wildlife Refuge System Improvement Act of 1997, Public Law 105–57.

Dated: October 28, 2003.

J. Mitch King,

Acting Regional Director.

[FR Doc. 04–1558 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–M

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Endangered Species Recovery Permit Applications

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of receipt of permit applications.

SUMMARY: The following applicants have applied for a scientific research permit to conduct certain activities with endangered species pursuant to section 10(a)(1)(A) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*). The U.S. Fish and Wildlife Service ("we") solicits review and comment from local, State, and Federal agencies, and the public on the following permit requests.

DATES: Comments on these permit applications must be received on or before February 25, 2004, to receive our consideration.

ADDRESSES: Written data or comments should be submitted to the U.S. Fish and Wildlife Service, Chief, Endangered Species, Ecological Services, 911 NE. 11th Avenue, Portland, Oregon 97232–4181 (fax: 503–231–6243). Please refer to the respective permit number for each application when submitting comments. All comments received, including names and addresses, will become part of the official administrative record and may be made available to the public.

FOR FURTHER INFORMATION CONTACT: Documents and other information

submitted with these applications are available for review, subject to the requirements of the Privacy Act and Freedom of Information Act, by any party who submits a written request for a copy of such documents within 30 days of the date of publication of this notice to the address above (telephone: 503–231–2063). Please refer to the respective permit number for each application when requesting copies of documents.

SUPPLEMENTARY INFORMATION:

Permit No. TE–079442

Applicant: David Zippin, San Jose, California.

The applicant requests a permit to remove/reduce to possession (collect plants and seeds) *Cordylanthus palmatus* (palmate-bracted bird's-beak) in conjunction with research in Yolo, Colusa, Alameda, and Madera Counties, California, for the purpose of enhancing its survival.

Permit No. TE–839211

Applicant: Marnie McKernan, Redlands, California.

The permittee requests an amendment to take (harass by survey and locate and monitor nests) the southwestern willow flycatcher *(Empidonax traillii extimus)*, and take (harass by survey) the San Bernardino kangaroo rat *(Dipodomys merriami parvus)* in conjunction with demographic studies in Riverside, San Bernardino, Orange, Imperial, and San Diego Counties, California, for the purpose of enhancing their survival.

Permit No. TE–080293

Applicant: Jolene Pucci, Northridge, California.

The applicant requests a permit to remove/reduce to possession (collect plants and seeds) *Pentachaeta lyonii* (Lyon's pentachaeta) in conjunction with research in Los Angeles and Ventura Counties, California, for the purpose of enhancing its survival.

Permit No. TE–080297

Applicant: Ellen Cypher, Bakersfield, California.

The applicant requests a permit to remove/reduce to possession (collect plants and seeds) *Cordylanthus palmatus* (palmate-bracted bird's-beak), *Eremalche kernensis* (Kern mallow), *Opuntia treleasei* (Bakersfield cactus), and *Pseudobahia bahiifolia* (Hartweg's golden sunburst) in conjunction with research in Fresno, Colusa, Glenn, Alameda, Madera, San Joaquin, Yolo, Kern, Stanislaus, and Tulare Counties, California, for the purpose of enhancing their survival.

Permit No. TE–839891

Applicant: Jack Levy, Pasadena, California.

The permittee requests an amendment to take (harass by photographing) the Behren's silverspot butterfly *(Speyeria zerene behrensii)*, the Callippe silverspot butterfly *(Speyeria callippe callippe)*, the Carson wandering skipper *(Pseudocopaeodes eunus obscurus)*, the Lange's metalmark butterfly *(Apodemia mormo langei)*, the lotis blue butterfly *(Lycaeides argyrognomon lotis)*, the mission blue butterfly *(Icaricia icarioides missionensis)*, the Myrtle's silverspot butterfly *(Speyeria zerene myrtleae)*, the San Bruno elfin butterfly *(Callophrys mossii bayensis)*, and the Smith's blue butterfly *(Euphilotes (=Shijimiaeoides) enoptes smithi)* in conjunction with research in San Mateo, Santa Clara, Alameda, Lassen, Contra Costa, Mendocino, Marin, and Monterey Counties, California, for the purpose of enhancing their survival.

Permit No. TE–066621

Applicant: Naval Base Ventura County Point Mugu, Point Magu, California.

The permittee requests an amendment to take (harass) the California least tern *(Sterna antillarum browni)* in conjunction with monitoring by camera at Naval Base Ventura County Point Mugu, California, for the purpose of enhancing its survival.

Permit No. TE–080774

Applicant: U.S. Forest Service, Arcata, California.

The applicant requests a permit to take (capture, handle, radio-tag, mark, and release) the Point Arena mountain beaver *(Aplodontia rufa nigra)* in conjunction with ecological research in Mendocino County, California, for the purpose of enhancing its survival.

Permit No. TE–080779

Applicant: Melissa Wilson, San Diego, California.

The applicant requests a permit to take (harass by survey) the Conservancy fairy shrimp *(Branchinecta conservatio)*, the longhorn fairy shrimp *(Branchinecta longiantenna)*, the Riverside fairy shrimp *(Streptocephalus wootoni)*, the San Diego fairy shrimp *(Branchinecta sandiegonensis)*, the vernal pool tadpole shrimp *(Lepidurus packardi)*, and take (survey by pursuit) the Quino checkerspot butterfly *(Euphydryas editha quino)* in conjunction with surveys throughout the range of each species in California for the purpose of enhancing their survival.

We solicit public review and comment on each of these recovery permit applications.

Dated: December 19, 2003.

Paul L. Henson,

Acting Manager, California/Nevada Operations Office, Region 1, U.S. Fish and Wildlife Service.

[FR Doc. 04–1556 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Endangered and Threatened Species Permit Applications

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of receipt of application.

SUMMARY: The following applicant has applied for a scientific research permit to conduct certain activities with endangered species pursuant to section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended.

DATES: To ensure consideration, written comments must be received on or before February 25, 2004.

ADDRESSES: Written comments should be submitted to the Chief, Endangered Species Division, Ecological Services, P.O. Box 1306, Albuquerque, New Mexico 87103. Documents and other information submitted with this application are available for review, subject to the requirements of the Privacy Act and Freedom of Information Act. Documents will be available for public inspection, by appointment only, during normal business hours at the U.S. Fish and Wildlife Service, 500 Gold Avenue, SW., Room 4102, Albuquerque, New Mexico. Please refer to the permit number when submitting comments. All comments received, including names and addresses, will become part of the official administrative record and may be made available to the public.

FOR FURTHER INFORMATION CONTACT: Chief, Endangered Species Division, (505) 248–6920.

SUPPLEMENTARY INFORMATION:

Permit No. TE–080636

Applicant: Terracon Inc., Lenexa, Kansas.

Applicant requests a new permit for research and recovery purposes to conduct presence/absence surveys, baiting, and trapping of American burying beetles *(Nicrophorus americanus)* within Arkansas, Kansas, Nebraska, Oklahoma, and South Dakota.

Authority: 16 U.S.C. 1531, *et seq.*

Dated: January 9, 2004.

Susan MacMullin,

Acting Assistant Regional Director, Ecological Services, Region 2, Albuquerque, New Mexico.

[FR Doc. 04–1557 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition To List the Midvalley Fairy Shrimp as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding for a petition to list the midvalley fairy shrimp (*Branchinecta mesovallensis*) under the Endangered Species Act of 1973, as amended. After reviewing the available scientific and commercial information, we find that listing is not warranted at this time. We ask the public to submit to us any new information that becomes available concerning the status of or threats to the species. This information will help us monitor and encourage the conservation of this species.

DATES: The finding announced in this document was made on January 20, 2004. Although further listing action will not result from this finding, we request that you submit new information concerning the status of or threats to this species whenever it becomes available.

ADDRESSES: The complete file for this finding is available for inspection, by appointment, during normal business hours, at the Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Sacramento, CA 95825–1846. Submit new information, materials, comments, or questions concerning this species to the Service at the above address.

FOR FURTHER INFORMATION CONTACT: Glen Tarr or Arnold Roessler, at the Sacramento Fish and Wildlife Office (*see* **ADDRESSES** section above), by telephone at (916) 414–6600, by facsimile at (916) 414–6712, or by electronic mail at *mvfairyshrimp@fws.gov*.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), requires that, for any petition to revise the List of Threatened and Endangered Species that contains substantial scientific and commercial information that listing may be warranted, we make a finding within 12 months of the date of the receipt of the petition on whether the petitioned action is (a) not warranted, or (b) warranted, or (c) warranted but precluded by other pending proposals. Such 12-month findings are to be published promptly in the **Federal Register**.

On August 31, 2001, we received a petition dated August 14, 2001, from the Center for Biological Diversity and VernalPools.Org, requesting us to list the midvalley fairy shrimp as an endangered species. On April 29, 2003, we announced an initial petition finding in the **Federal Register** that the petition presented substantial information to indicate the petitioned action may be warranted (68 FR 22724). In accordance with section 4(b)(3)(A) of the Act, we have now completed a status review of the best available scientific and commercial information on the species, and have reached a determination regarding the petitioned action. This determination meets deadline requirements established by a court-approved consent decree (*Butte Environmental Council* v. *Wayne White*, Consent Decree, CIV.S–00–797 WBS).

Species Information

The midvalley fairy shrimp is a small (0.28 to 0.79 inch (in), (7 to 20 millimeter (mm)) freshwater crustacean found in shallow ephemeral pools (pools that seasonally fill and dry up) near the middle of California's Central Valley (Helm 1998; Eriksen and Belk 1999; Belk and Fugate 2000). It swims on its back by beating its phyllopods, which are legs with leaflike or paddlelike structures. The moving phyllopods also extract oxygen from the water, along with floating bits of food such as phytoplankton and detrital bacterial colonies.

The midvalley fairy shrimp was only recently formally described as a species by Belk and Fugate (2000). Adult males of the species most closely resemble male Conservancy fairy shrimp (*Branchinecta conservatio*), while adult females more closely resemble female vernal pool fairy shrimp (*Branchinecta lynchi*). Distinguishing characteristics include differently shaped second antennae for males, and the absence of a pair of bumps on the third thoracic segments of females (Belk and Fugate 2000). Both of these characteristics can not be confirmed through visual observation in the field.

Range and Distribution

Midvalley fairy shrimp have been found in the following California counties: Sacramento, Solano, Contra Costa, San Joaquin, Madera, Merced, Fresno and Yolo (Belk and Fugate 2000; California Natural Diversity Database (CNDDB) 2003a). The known occurrences of midvalley fairy shrimp are distributed in five different Vernal Pool Regions as described by Keeler-Wolf *et al.* (1998) (Southeastern Sacramento Valley, Livermore, Southern Sierra Foothills, San Joaquin Valley, and the Solano-Colusa Region). Each of these regions is classified as having different or unique vernal pool characteristics. The area encompassed by these regions includes the vernal pool habitats in the San Joaquin Valley, the Sierra Nevada foothills from Yuba County south to Kern County, the Sacramento Valley from Glenn County south to Santa Clara County along the Coast Range. Although the vernal pool grassland complexes which are contained within these regions offer unique or specific environmental conditions for the species inhabiting them, without site specific knowledge of the exact habitat requirements of the midvalley fairy shrimp it would be difficult to rule these areas out as not being habitat available for the species. Midvalley fairy shrimp are distributed within the same vernal pool complexes as other listed vernal pool crustaceans (vernal pool fairy shrimp, vernal pool tadpole shrimp (*Lepidurus packardi*), and conservancy fairy shrimp) and known habitat preferences for midvalley fairy shrimp can be reasonably presumed to fall within the parameters of these listed vernal pool crustaceans.

Since we published our 90-day finding on a petition to list the species in April, 2003 (68 FR 22724), the CNDDB has documented six new sites (two in Yolo County and 4 in Sacramento County). This brings the total number of known occurrences from 52 to 58. Additional records not recorded in CNDDB have also been documented as a result of surveys in east Merced County in 2001 and 2002 (K. Fien, *in litt.* 2002, CNDDB 2002, CNDDB 2003). The increase of known locations lends additional support to the idea that the range and distribution of midvalley fairy shrimp is greater than the distribution of known occurrences. The two reported occurrences in Yolo County are in an area previously not known to support midvalley fairy shrimp.

With the exception of eastern Merced County, the range and distribution of the midvalley fairy shrimp has been

poorly documented by surveys. Helm's (1998) survey of large branchiopods is the most comprehensive, but the 95 locations surveyed in that study are spread out across the northern counties of the state, leaving many counties within or on the borders of the midvalley fairy shrimp's known range with few or no sampled locations. The known range is primarily based on occurrence data submitted to the CNDDB, but such data do little to rule out the existence of additional occupied areas (CNDDB *in litt* 2003). Most potentially occupied sites have yet to be surveyed for the species, and surveys conducted for other vernal pool species can not be relied on to provide midvalley fairy shrimp data to the CNDDB. The species is difficult to identify, and was not formally described until 2000 (Belk and Fugate 2000). Although survey permits for listed vernal pool species now require biologists to submit any midvalley fairy shrimp data to the CNDDB, failure to do so would be difficult to detect.

In addition the CNDDB has yet to incorporate data from certain surveys conducted in eastern Merced County in 2001 and 2002 that specifically looked for midvalley fairy shrimp (among other species) (K. Fien, California Department of Fish and Game (CDFG), *in litt.* 2002). These surveys are among the most comprehensive conducted for the species in the Merced area and produced a great deal of new site data. It is difficult to estimate how many new occurrences the additional surveys sites represent because CNDDB occurrences combine population locations within about 0.25 miles (mi) (0.40 kilometers (km)) (Darlene McGriff, CNDDB, pers. comm. 2003), and because some of the additional site data include multiple records at the same location (John Hunter, Restoration Ecologist, Jones and Stokes, pers comm. 2003). However, visual examination of the new locations using Geographic Information Systems (GIS) software shows a fairly continuous distribution of new sightings running from the proposed UC Merced area to Myer's Ranch, about 6 mi (9.7 km) to the east. New sightings also show up in the area of the Cunningham Ranch, about 10 mi (16 km) east by southeast of the UC Merced site, and also in a relatively small area at the southeast corner of the County about 20 mi (32 km) southeast of the UC Merced site. The total area roughly encompassed by new sightings not yet included in the CNDDB is approximately 25 square miles (mi^2) (65 square kilometers (km^2)) or 15,600 acres (ac) (6,475 hectares (ha)).

The extent which a species is threatened depends on numerous factors including the species' range and distribution. Vernal pool fairy shrimp species such as midvalley and the other listed *Branchinecta* are cryptic in nature and often require several years of surveying to identify occupied and unoccupied habitat. Also these species (especially the vernal pool fairy shrimp) tend to experience local extirpation and colonization events overtime within and between the vernal pool habitats and complexes in which it is found. As a result, a species may not express itself on a regular basis in every vernal pool or vernal pool complex it is found. During the process to list the four vernal pool crustaceans, the original distribution and range of the California fairy shrimp (*Linderiella occidentalis*) was believed to be much more restricted than later found after subsequent survey efforts. The California fairy shrimp is subject to the same threats of habitat loss and alteration as the four listed crustaceans, yet due to its range and distribution is more widespread and not under threat of extinction. Subsequently, the final rule to list excluded the California fairy shrimp and designated the vernal pool fairy shrimp as threatened from endangered (59 FR 48136, September 19, 1994). Similarly the vernal pool clam shrimp (*Cyzicus* sp.) also occurs in vernal pools, is under the same threats as other vernal pool species yet is well distributed and well documented throughout its range and not under threat of extinction. As discussed above, the range and distribution of the midvalley fairy shrimp is not well established due to its recent description as a species and may conceivably be much more extensive than indicated by currently available information.

The vernal pool habitat within Stanislaus and San Joaquin Counties provides specific examples that midvalley fairy shrimp may be more widespread than currently documented (CNDDB 2003). Both these counties have relatively large tracts of habitat (as discussed below), including rangeland on their eastern margins (University of California 1998) with mapped vernal pool areas containing widely scattered smaller pools and closely packed (high density) pools of varying sizes (Holland 1998). They also include Riverbank geologic formations, as well as other formations shown by surveys in east Merced County to support midvalley fairy shrimp populations (CDMG 1981, CDMG 1991, Vollmar 2002). The current survey protocols for the listed vernal pool crustaceans requires that permitees stop netting vernal pools once a positive identification of a listed species has been recorded. This would result in portions of a vernal pool complex not being specifically surveyed. Also the frequency of sampling outlined in the protocols may also result in negative detections of midvalley fairy shrimp due to their ability to complete their lifecycle within a short time frame (Service Eriksen and Belk 1999). With the similarity of physical characteristics between midvalley and other *Branchinecta* species it would be difficult at best to identify the species only through visual observation of the pools.

We attempted to address these problems in 2001 by commissioning a rangewide midvalley fairy shrimp survey, but although the survey did find some new populations, the survey was not conducted comprehensively or systematically. Also, most of the sightings found merely served to confirm population sites that were already in the published literature. The survey therefore did little to verify range or distribution limits of the species (Jan Knight, Service, *in litt.* 2002). We are currently funding a new survey to complete this work and are working closely with the contractors to ensure use of a reliable sampling methodology capable of supporting conclusions regarding both absence and presence of midvalley fairy shrimp in surveyed areas.

Habitat

Midvalley fairy shrimp live primarily in vernal pools, but occasionally may also be found in vernal swales and other ephemeral wetlands such as roadside puddles (Helm 1998; Belk and Fugate 2000; Vollmar 2002; CNDDB 2003). Vernal pools are shallow depressions with relatively impermeable soils that pond water during the winter and early spring, dry down during the spring, and are completely dry by the late spring or early summer. Vernal pools support a specific community of plants and animals adapted to such conditions (Keeler-Wolf *et al.* 1998). Vernal swales are similar to vernal pools, but tend to convey surface runoff during wet seasons in shallow, vegetated channels. Vernal swales may interconnect vernal pools to form a matrix of swale and pool features called a vernal pool complex (Helm 1998). The majority of sightings of this species have been in vernal pools. For instance, a survey conducted in the early 1990s for large branchiopods in 27 California counties found 13 midvalley fairy shrimp occurrences in vernal pools (Helm 1998) and one in a vernal swale. A 2002 survey of eastern Merced County found midvalley fairy shrimp in 72 locations,

all of which were vernal pools (Vollmar 2002). A survey in 2000 documented several midvalley fairy shrimp occurrences in vernal pools, roadside drainages, and along a railroad easement (Rogers 2001).

Generally, the species appears to require shallow vernal pools with low to moderate dissolved salts (Eriksen and Belk 1999). Cysts appear to hatch best in cool water (about 10 degrees Celsius (°C) (50 degrees Fahrenheit (°F))), though adults have exhibited a high tolerance for warmer water conditions, and Helm (1998) found one occurrence in water that was 32 °C (90 °F) (Helm 1998; Eriksen and Belk 1999). A comparison of the characteristics of pools used by eight branchiopod species endemic to northern California found that midvalley fairy shrimp used the shallowest pools, both as determined according to average pool depth (4.0 in (10.1 centimeters (cm)) and maximum potential pool depth (5.4 in (13.7 cm)) (Helm 1998). It also used pools with the least potential ponding area (average of 721 square feet (ft^2) (67 square meters (m^2)) and total water volume (average of 23,908 cubic feet (ft^3) (677 cubic meters (m^3)) of all the endemic branchiopods but one (that one being the Modoc Plateau tadpole shrimp (*Lepidurus sp.*, not yet formally described), which was only found in two pools). Another study in Merced County found midvalley fairy shrimp in even smaller and shallower pools, averaging 5.1 in (13 cm) maximum ponding depth and 229.4 ft^2 (21 m^2) maximum ponding area (Vollmar 2002).

Known midvalley fairy shrimp occurrences most commonly occur on "Riverbank" geologic formations and on low terrace, basin rim, and volcanic mudflow landforms (Helm 1998; Vollmar 2002). Landforms are surface geomorphic features formed by the deposition of soil and rock through flooding, glacial outwash, and volcanic eruptions (Smith and Verrill 1998). The landform types frequented by midvalley fairy shrimp occur at relatively low elevations with low gradients. Additionally, occurrences in eastern Merced County appear to cluster in areas containing a dense concentration of vernal pools, as mapped by Holland (1998) (CNDDB 2003; Kristi Fien, CDFG, *in litt.* 2002, *as explained by* Jennifer Housely, Jones and Stokes, *in litt.* 2003, *compiling data from* Vollmar 2002, EIP Associates 1999, EIP Associates 2001, and URS 2000). This association is less clear in the northern portion of the species' range, holding fairly well for Solano County, which has a large area of high-density habitat, but less well for Sacramento County, which has several smaller areas of such habitat at higher elevations. Yolo County has two midvalley fairy shrimp occurrences, but has virtually no high density vernal pool areas at all. Vollmar (2002) found midvalley fairy shrimp on Laguna geological formations, which are more typically found underlying high terrace grasslands (Reiner and Swenson 2000). Additionally, Helm (1998) found about 20 percent of his midvalley fairy shrimp populations on volcanic mudflow landforms underlain by Merhten geologic formations. Valley Springs is another geologic formation typical of volcanic mudflow landforms (Reiner and Swenson 2000), and Vollmar's (2002) study found roughly as many populations on Merhten and Valley Springs formations combined, as on Riverbank.

The apparent tendency of the species to avoid higher elevation terraces may conflict with its tendency to occur in smaller pools. Vollmar's (2002) stratified random survey of rangeland in eastern Merced County found average pool size on higher terraces to be small, shallow, and "seemingly ideal" for the species. Yet midvalley occurrences tended to occur in the smaller pools of the lower terraces, where average pool size was medium to large. Across the state, only three known population locations occur on soils associated with high terrace landforms (USDA 1998; Smith and Verrill 1998; CNDDB 2003). These occurrences (occurrences 1, 28, and 45 in the CNDDB) all occur within 2.0 mi (3.2 km) of each other in Sacramento County, and are all within about 0.5 mi (0.8 km) of the mapped edge of such soils.

Generally, all the midvalley fairy shrimp habitat requirements and correlations appear to fall within the range of habitat used by vernal pool fairy shrimp. For instance, midvalley fairy shrimp tend to use small, shallow pools, while vernal pool fairy shrimp can use pools that are either small or medium (Helm 1998). Helm's (1998) study, for example, found midvalley fairy shrimp in pools ranging from 8 to 19 cm (3.1 to 7.5 in) maximum ponding depth, and vernal pool fairy shrimp in pools of 3 to 122 cm (1.2 to 48 in) maximum ponding depth. Similarly, Vollmar's (2002) study in east Merced County found midvalley fairy shrimp in pools from 2 to 9 cm (0.79 to 3.5 in) maximum ponding depth, and vernal pool fairy shrimp in 2 to 16 cm (0.79 to 6.3 in) pools. Vollmar (2002) also found that midvalley fairy shrimp tend to avoid high terrace landforms, but found vernal pool fairy shrimp in both high and low terrace landforms. Vernal pool fairy shrimp in eastern Merced County were also found on every geographic formation and in every area of the map (within 1 mi (1.6 km)) where midvalley fairy shrimp were found (EIP Associates 2001; Vollmar 2002). In other counties, known midvalley fairy shrimp locations also tend to occur within about a mile of known vernal pool fairy shrimp locations. The six midvalley fairy shrimp occurrences in San Joaquin County are the most serious exceptions to this trend. These occurrences were found in marginal roadside habitat from 5 to 15 mi (8 to 24 km) away from the nearest vernal pool fairy shrimp. Solano County also has four midvalley occurrences at distances of 1.5 to 5 mi (2.4 to 8 km) away from vernal pool fairy shrimp, and there is one such occurrence each in Contra Costa, Sacramento, Fresno, and Madera Counties.

Reproduction and Growth

As might be expected from a species found in relatively small, potentially quick-drying pools, the midvalley fairy shrimp showed the fastest maturation rate of all the endemic Northern California branchiopods tested (Helm 1998). Interestingly, whereas Helm found that midvalley fairy shrimp could reach maturity (defined as having at least one individual in the population with apparently functioning sexual organs) in as few as 8 days, the average time to maturity was 26.3 days, which was considerably more than the 18.0 days on average required for vernal pool fairy shrimp. Helm relates that the late-season rain that led to the quickest maturation rate was followed by particularly warm weather and eventually resulted in water temperatures of 32 °C (90 °F) in the midvalley fairy shrimp's pool. The midvalley fairy shrimp's ability to mature and reproduce unusually quickly in warm water, while maintaining a maturation rate comparable to other species in cooler water, may allow it to take advantage of late spring or early summer storms without sacrificing its ability to utilize more long-lived ponds that form earlier in the season (Helm 1998). As stated above current survey protocols call for surveys to begin during the winter once the pools fill and stop once a listed species has been found or the pool dries in the spring. The timing and frequency of sampling outlined in the protocols may not be able to detect midvalley fairy shrimp occurrences.

Midvalley fairy shrimp populations survive the seasonal desiccation of their ponds by laying eggs encased in nearly impervious shells. Embryos within these eggs enter a dormant state called

diapause, which in related species can last for decades if necessary, until such time as their pools refill and proper environmental cues allow them to hatch. Dormant eggs are referred to as cysts, and because not all cysts hatch with each refilling of a pool, they can form a cyst bank (similar to a seed bank) in the soil that produces new populations of adult shrimp where none had been seen in years. Since the cysts can pass unharmed through the digestive systems of other animals, and since they are very small (0.012 in (0.27 mm)), they can be transported to new locations by birds or mammals and potentially colonize other vernal pools. Cysts also float after having been dried, so they can be washed to new locations by flooding (Eriksen and Belk 1999). After hatching, the shrimp pass through three stages of growth, called nauplius, metanauplius and juvenile, before becoming adults. These stages differ primarily in the extent to which the thoracic and abdominal segments have developed. For instance, the nauplius lacks thoracic segments and their accompanying phyllopods, and so must use its antenna for locomotion (Eriksen and Belk 1999).

Discussion of Listing Factors

Section 4 of the Act (16 U.S.C. 1533) and implementing regulations at 50 CFR part 424 set forth procedures for adding species to the Federal endangered and threatened species list. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to midvalley fairy shrimp are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Midvalley fairy shrimp are potentially vulnerable to the same urban and agricultural conversion pressures mentioned in our listing determination for the vernal pool fairy shrimp, vernal pool tadpole shrimp, Conservancy fairy shrimp, and longhorn fairy shrimp (*B. longiantenna*) (Service 1994). Holland (1998) documented average annual losses of vernal pool complexes by county ranging from 0 to over 30,000 ac (12,140 ha) per year, and averaging about 550 ac (223 ha) per year through 1997 in counties known to contain midvalley fairy shrimp. Baseline years for each county ranged from 1985 to 1994, however. If we include only those counties (Sacramento, Solano, Fresno and Contra Costa) whose vernal pool losses can be ascertained from about 1994, which was the year the first 4 vernal pool crustaceans were listed (59 FR 48136, September 19, 1994), the average loss rate drops to 182 ac (74 ha) per year. Although this drop in the rate of habitat loss cannot be specifically attributed to the listing of the four vernal pool crustaceans, the listing and the protections of the Act certainly can be attributed to moderating vernal pool losses.

Of the 58 midvalley fairy shrimp occurrences in the CNDDB (2003), 23 occurrences (roughly 40 percent) are on protected lands and 14 are in rural areas not currently under threat. In addition, approximately 66 sightings of midvalley fairy shrimp have also been documented as a result of surveys in east Merced County in 2001 and 2002 (K. Fien, *in litt.* 2002, CNDDB 2002, CNDDB 2003). Approximately 30 of these sightings are on protected lands and 23 are in rural areas not currently under threat. The remainder is within the proposed UC Merced development area. As discussed in the Range and Distribution section above, it is not clear how many CNDDB occurrences these sightings will eventually represent; however, after reviewing the point data it is reasonable to assume that a majority of the sites will represent new occurrences and not confirmations of existing CNDDB records. Taken together, the eastern Merced easement lands, which contain known midvalley fairy shrimp sightings, total approximately 20,750 ac (8,397 ha) (Kristi Fien, *in litt.* 2003). The easements are permanent, will generally be managed by the Nature Conservancy, and cannot be extinguished by selling the land to a new owner (Jeff Single, California Department of Fish and Game, *in litt.* 2003; Service, *in litt.* 2003). They are also currently independent of any additional vernal pool conservation actions to be taken by UC as part of its Conservation Strategy for vernal pool species.

Compared to the vernal pool fairy shrimp and vernal pool tadpole shrimp which consistently occur within the range of midvalley fairy shrimp this proportion of protection of occurrences is far greater than the other listed species. The protected midvalley fairy shrimp lands include two national wildlife refuges, several vernal pool conservation banks, a California Department of Fish and Game ecological reserve, and several Nature Conservancy and CDFG conservation easements. Overall the protected sites include representative locations from four of the five vernal pool regions occupied by midvalley fairy shrimp (*see* Habitat, above) (Keeler-Wolf *et al.* 1998), including five sites in Sacramento County (Southeastern Sacramento Valley Region), 13 sites in east Merced County (Southern Sierra Foothills Region), one site in central Merced County (San Joaquin Valley Region), and four sites in Solano and Yolo counties (Solano-Colusa Region).

In east Merced County, 13 CNDDB occurrences are on large land parcels protected by conservation easements. The CDFG purchased the easements specifically to help mitigate any impacts to vernal pool species that might result from construction in the area, particularly construction of the University of California (UC), Merced. The only portion of the proposed UC which has gone through Service review and the section 7 process is the phase 1 of the project. Phase 1 of the project occurred on an area which did not result in take to listed vernal pool species and as a result no take authorization was given for the development. Additional expansion of the UC will require consultation with the Service through section 7 of the Act.

In contrast, we are aware of development plans at various stages of completion for nine sites (15.5 percent). Of these nine, none have finalized plans to remove the known midvalley fairy shrimp habitat, and some are undergoing formal or informal consultation with us under section 7 of the Act for potential effects to listed vernal pool species. An additional 12 sites are located on habitat that has already been largely converted to other uses such as housing developments, vineyards or row crops. These sites generally involve relatively small remnant patches of habitat surrounded by the new land use. Although some of these sites are small, the midvalley fairy shrimp's ability to occupy small shallow pools, and its relative heat tolerance, may allow it to persist under the modified hydrologic patterns of such areas. Freshwater fairy shrimp species such as the midvalley may also be less susceptible to inbreeding effects that can threaten small isolated populations (Fugate 1998).

Based on the information available on specific threats, the amount of land area protected containing midvalley fairy shrimp occurrences either through location on specific vernal pool preserves, wildlife refuges, or through conservation easements we believe that the threats to the known occurrences of midvalley fairy shrimp are not to a level where the species is at risk of becoming extinct through a significant portion of its range. Approximately 64 percent of the CNDDB occurrences are either protected or are currently not under any identifiable threat (23 protected, 14 not specifically threatened). In addition, a

significant number of sightings in eastern Merced County not included in CNDDB are also either protected or not currently under threat. These occurrences represent a good cross section of the known range of the species and occupy examples of the various vernal pool habitat types habitat within four of the five vernal pool regions (Keeler-Wolf *et al.* 1998).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The listing petition acknowledges, and we agree, that current data do not indicate that these factors constitute a threat to the midvalley fairy shrimp at this time.

C. Disease or Predation

The listing petition acknowledges, and we agree, that current data do not indicate that these factors constitute a threat to the midvalley fairy shrimp at this time.

D. The Inadequacy of Existing Regulatory Mechanisms

The primary cause for the decline of vernal pool species is loss of habitat due to human activities. State and Federal laws exist that provide some protection to the midvalley fairy shrimp. Existing regulatory mechanisms that could provide some protection for the midvalley fairy shrimp include: (1) Section 404 of the Federal Clean Water Act; (2) occurrence with other species protected by the Federal Endangered Species Act; (3) consideration under the California Environmental Quality Act (CEQA) and other State regulations; and (4) local laws and regulations.

Federal

Clean Water Act (CWA): The Clean Water Act (33 U.S.C. 1251 *et. seq.*) prohibits the discharge of pollutants into "navigable waters," which it defines as "the waters of the United States" (33 U.S.C. 1311, 1362). Section 404 of the CWA (33 U.S.C. 1344) provides an exception to this general prohibition by authorizing the U.S. Army Corps of Engineers (Corps) to issue permits for the discharge of dredge or fill material. Regulations issued by the Corps define the term "waters of the United States" to include "wetlands * * * the use, degradation or destruction of which could affect interstate or foreign commerce" (33 CFR 328.3). Under this authority, the Corps has regulated the discharge of fill material into vernal pools, except for discharges specifically exempted by the CWA, such as those resulting from "normal farming, silvicultural and ranching activities" (33 U.S.C. 1344(f)(1)(A)). The CWA requires project proponents to obtain a permit from the Corps prior to undertaking many activities (*e.g.*, grading, discharge of soil or other fill material) that would result in the filling of wetlands subject to the Corps' jurisdiction. However, in light of a recent Supreme Court decision (*Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of Engineers* No. 99–1178, 2001 (SWANCC)), the Corps' Sacramento District Office, which administers the section 404 permit process across the known range of the midvalley fairy shrimp, no longer requires section 404 permits for filling in vernal pools unless those pools are connected at some time by overland flow to navigable waters or their tributaries. The district office is determining which pools will require permits on a case-by-case basis, and estimates that "most" of the vernal pools in the district will remain subject to section 404 regulations (Nancy Haley, Corps Sacramento District Office, pers. comm. 2003).

For pools and discharges requiring permits, the section 404 process provides three levels of review. Projects involving fill of more than 0.5 ac (0.2 ha), or which may affect listed species or otherwise have more than a minimal adverse effect on the environment, require individual permits. The Corps issues such permits on a case-by-case basis according to guidelines established at 40 CFR part 230. Guidelines particularly applicable to vernal pool protection include requirements that: (1) No practicable alternatives exist with less environmental impact; (2) the project comply with the Endangered Species Act; (3) the project not contribute to significant water quality degradation as measured by impacts to (among other things) wildlife health and ecosystem diversity; and (4) appropriate and practicable steps be taken to minimize adverse impacts. Such appropriate and practicable steps may include the creation and protection of vernal pools in mitigation banks (60 FR 58605, July 31, 1998).

Smaller projects with minimal adverse effects may be issued a general permit. Such permits contain standardized provisions for particular types of projects within a particular region or across the nation. The general permits most applicable to midvalley fairy shrimp are nationwide permits (NWPs) 39 and 40, which authorize discharges due to development and to nonexempted agricultural activities respectively (67 FR 2019, January 15, 2002). General permits are the most common type issued, and require less review by the Corps than individual permits (Ruffolo 2002). Provisions in both NWP 39 and 40 also provide for the lowest level of review, under which wetlands of up to 0.1 ac (0.04 ha) may be filled without prior notification to the Corps if other requirements of the permit are met.

Available information indicates the section 404 permit process in some cases may be relatively effective at protecting wetlands under its jurisdiction (Ruffolo 2002). Such information, however, does not account for projects that do not come under permit review, such as vernal pool fill associated with normal farming or ranching practices. The tendency for midvalley fairy shrimp to occur on Riverbank formations and other low terrace land forms would subject the species and its habitat to a high degree of agricultural development pressure. In reviewing the information on habitat preferences for midvalley fairy shrimp for shallow vernal pool habitats and the fact that some of the occurrences are already isolated due to habitat fragmentation it is questionable that the Corps would take jurisdiction over the pools inhabited by midvalley fairy shrimp.

Considering the potential continued trend of vernal pool losses throughout the state and the questions raised regarding jurisdiction over vernal pools, it is possible that the regulatory mechanisms provided under the CWA may provide some minimal protection to the midvalley fairy shrimp.

Endangered Species Act

The Act will afford incidental protection to midvalley fairy shrimp where they co-exist with species already listed as threatened or endangered. Fleshy owl's-clover (*Castilleja campestris* ssp. *succulenta*), Solano grass (*Tuctoria mucronata*), Colusa grass (*Neostafia colusana*), Conservancy fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp, are listed as threatened or endangered under the Act and occur in some of the same habitat as the midvalley fairy shrimp. Consequently, prospective developers requiring a Federal permit (such as a permit to fill vernal pools under section 404 of the CWA, 33 U.S.C. 1344 *et seq.*) would already be required to survey for listed species prior to developing midvalley fairy shrimp pools in those quadrangles. This could lead to consultation requirements prior to destruction or modification of midvalley fairy shrimp pools, if those pools or their associated complexes also support occurrences of listed shrimp. When

considering the occupancy of vernal pool grasslands with listed vernal pool crustaceans we evaluate the biological and physical factors associated with the vernal pool wetland. Factors such as proximity to adjacent vernal pools, watersheds, hydrology, number of occurrences, connectivity with other vernal pools, wetland swales, and extent of the associated uplands are evaluated. As a result of this evaluation occupancy is usually considered within the complex and not isolated to an individual pool. This distribution occurs because different areas of the cyst bank hatch at different times in response to local conditions (59 FR 48136, September 19, 1994; Eriksen and Belk 1999). However, none of these species except the vernal pool fairy shrimp have been found to co-occur with midvalley fairy shrimp in the same vernal pools (Eriksen and Belk 1999) and this observation is believed to be a result of overland flow in a heavy precipitation event and not as a result of overlapping habitat requirements. Biological surveys are often inadequate and project proponents may miss detection of midvalley fairy shrimp due to its ability to occur in shallow pools which are inundated for short periods. In instances where coexistence of listed species and midvalley fairy shrimp are documented in the same complex, there may be incidental protection although there is no consultation requirement to avoid take or minimize effects of the action on the midvalley fairy shrimp.

State

California Environmental Quality Act (CEQA): The California Environmental Quality Act (Public Resources Code Sec. 21000–21177) requires a full disclosure of potential environmental impacts of proposed projects and offers broad opportunities to protect rare, threatened, endangered plants or animals and their habitats. Federally listed animals are considered rare, threatened, or endangered for purposes of CEQA (14 CCR 15380), which means that habitat protections taken under CEQA for the vernal pool fairy shrimp may also benefit the midvalley fairy shrimp in the same manner as discussed above with regard to the Act. In addition CEQA protects the environment more generally and broadly than the Endangered Species Act and mitigates all impacts to the environment. Protection of habitat under CEQA does not require the species be listed under the Endangered Species Act.

The public agency with primary authority or jurisdiction over a proposed project is designated as the lead agency and is responsible for conducting a review of the project and consulting with other agencies concerned with the resources affected by the project. Section 15065 of the CEQA guidelines requires a finding of significance if a project has the potential to "reduce the number or restrict the range of a rare or endangered plant or animal." Once significant effects are identified, the lead agency may either require changes in the project to mitigate the effects, or else in rare instances may decide that overriding social or economic considerations make mitigation infeasible. Projects approved under the latter circumstances are still required to mitigate. However, as a result without the fail safe of a jeopardy prohibition, projects may be approved that cause environmental damage, such as the destruction of rare species or their habitats. Protection of listed or rare species through CEQA is, therefore, dependent upon the discretion of the agency involved and available mitigation with no absolute protection. CEQA will therefore contribute to the protection of midvalley fairy shrimp habitat, but there may be instances where "overriding considerations" result in destruction, albeit mitigated, of midvalley fairy shrimp habitat.

The California Department of Fish and Game (CDFG) is the agency responsible for managing and regulating fish and wildlife resources in California. CDFG's mission is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. CDFG has no officially adopted regulations or statutes pertaining to wetlands. However, Fish and Game Code § 1601 and § 1603 charge CDFG with executing Streambed Alteration Agreements. As a designated Trustee and/or Responsible Agency under CEQA § 15386 and § 15381, CDFG reviews and comments on documents produced by the lead agencies. These regulations only apply to streams and stream corridors and are not mechanisms which would protect upland areas and vernal pool grasslands.

Local

We are not aware of any specific county or city ordinances or regulations that provide protection for the midvalley fairy shrimp.

Based on the current level of protections afforded wetland habitats through the CEQA, CWA and the ESA, we believe that the existing regulatory mechanisms provide some protection of the midvalley fairy shrimp. However, the protections of the ESA are only coincidental and the CWA and CEQA while protecting some vernal pool habitat do not necessarily protect all of it.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

We are not aware of any other factors that constitute a threat to the midvalley fairy shrimp at this time.

Petition Finding

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species. We reviewed the petition, information available in our files, other published and unpublished information, and comments submitted to us during the public comment period following our 90-day petition finding, and we consulted with recognized vernal pool crustacean experts and other resource agencies. On the basis of the best scientific and commercial information available, we find that the proposal to list the midvalley fairy shrimp is not warranted at this time. Although vernal pool habitat continues to be lost in parts of the midvalley fairy shrimp's range, from what we know of the current range and distribution of the species, it is well represented by occurrences on protected lands and with occurrences in areas with little or no current threat. Additionally, although several development projects and land use changes are affecting known occurrences, their effects are being mitigated and we are not aware of any occurrences likely to be extirpated in the near future due to habitat loss. While the existing regulatory mechanisms under CEQA, the CWA, and the ESA do not ensure protection of midvalley fairy shrimp, they are likely to moderate the rate and extent of habitat loss for midvalley fairy shrimp through their direct application and as an indirect benefit of conservation efforts undertaken for the other listed vernal pool crustaceans. As a result of these factors we find that the species is not in danger of extinction in the foreseeable future.

We will continue to monitor the status of the species, and to accept additional information and comments from all concerned governmental agencies, the scientific community, industry, or any other interested party concerning this finding.

References

A complete list of references used in the preparation of this finding is available upon request from the

Sacramento Fish and Wildlife Office (*see* **ADDRESSES** section).

Author

The primary author of this document is the Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service (*see* **ADDRESSES** section).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: January 20, 2004.

Marshall P. Jones Jr.,

Director, Fish and Wildlife Service.

[FR Doc. 04–1510 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Draft Revised Recovery Plan for the Paiute Cutthroat Trout (*Oncorhynchus clarki seleniris*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of document availability for review and comment.

SUMMARY: The U.S. Fish and Wildlife Service ("we") announces the availability of the Draft Revised Recovery Plan for the Paiute Cutthroat Trout (*Oncorhynchus clarki seleniris*) for public review. This draft plan includes specific recovery criteria and measures to be taken in order to delist the Paiute cutthroat trout.

DATES: Comments on the draft revised recovery plan must be received on or before March 26, 2004, to receive our consideration.

ADDRESSES: Copies of the draft revised recovery plan are available for inspection, by appointment, during normal business hours at the following location: U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 1340 Financial Boulevard, Suite 234, Reno, Nevada (telephone (775) 861–6300). Requests for copies of the draft revised recovery plan and written comments and materials regarding this plan should be addressed to Robert D. Williams, Field Supervisor, at the above Reno address. An electronic copy of the draft revised recovery plan is also available at: *http://endangered.fws.gov/recovery/index.html#plans.*

FOR FURTHER INFORMATION CONTACT: Chad Mellison, Fish and Wildlife Biologist, at the above Reno address.

SUPPLEMENTARY INFORMATION:

Background

Recovery of endangered or threatened animals and plants is a primary goal of our endangered species program and the Endangered Species Act (Act) (16 U.S.C. 1531 *et seq.*). Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act. Recovery plans describe actions considered necessary for the conservation of the species, establish criteria for downlisting or delisting listed species, and estimate time and cost for implementing the measures needed for recovery.

The Act requires the development of recovery plans for listed species unless such a plan would not promote the conservation of a particular species. Section 4(f) of the Act requires that public notice and an opportunity for public review and comment be provided during recovery plan development. We will consider all information presented during the public comment period prior to approval of each new or revised recovery plan. Comments may result in changes to the plan. Comments regarding recovery plan implementation will be forwarded to appropriate Federal or other entities so that they can take these comments into account during the course of implementing recovery actions. Individual responses to comments will not be provided.

The Paiute cutthroat trout is native to Silver King Creek in the East Fork Carson River drainage of east-central California, Humboldt-Toiyabe National Forest, Alpine County, California. Hybridization with non-native salmonids is the primary threat to the species.

The original recovery plan for the Paiute cutthroat trout was published in 1985. The objectives of the 1985 recovery plan were to reestablish a pure population of Paiute cutthroat trout in Silver King Creek above Llewellyn Falls, and secure and maintain the integrity of the occupied habitats in Silver King Creek, North Fork Cottonwood Creek, and Stairway Creek, all which occur outside of the presumed historic habitat. This revised plan incorporates recent research data and addresses the species' current status, threats, distribution, and recovery needs. It also addresses the effects of recovery actions on the mountain yellow-legged frog (*Rana muscosa*) and the Yosemite toad (*Bufo canorus*), which occur within the Silver King Creek drainage as well as in the vicinity of the out-of-basin population sites. This plan identifies actions to maintain ecosystem integrity as well as recover the listed species.

The draft revised recovery plan includes conservation measures designed to ensure that self-sustaining populations of Paiute cutthroat trout will once again occupy its historic range. Specific recovery actions focus on removing non-native salmonids and establishing a viable population in its historic range. The plan also identifies the need to protect pure populations which exist outside of the historic range. The ultimate goal of this plan is to delist the Paiute cutthroat trout by implementing a variety of measures to attain the following criteria: (1) All non-native salmonids are removed in Silver King Creek and its tributaries downstream of Llewellyn Falls to fish barriers in Silver King Canyon; (2) a viable population of Paiute cutthroat trout occupies all historic habitat in Silver King Creek and its tributaries downstream of Llewellyn Falls to fish barriers in Silver King Canyon; (3) Paiute cutthroat trout habitat is maintained in all occupied streams; (4) the refuge populations in Corral and Coyote Creeks, Silver King Creek and tributaries above Llewellyn Falls, as well as out-of-basin populations are maintained as refugia and are secured from the introduction of other salmonid species; and (5) develop a long-term conservation plan and conservation agreement which will be the guiding management documents once Paiute cutthroat trout are delisted.

Public Comments Solicited

We solicit written comments on the draft revised recovery plan described. All comments received by the date specified above will be considered in developing a final revised recovery plan.

Authority

The authority for this action is section 4(f) of the Endangered Species Act, 16 U.S.C. 1533(f).

Dated: November 24, 2003.

Steve Thompson,

Manager, California/Nevada Operations Office, Region 1, U.S. Fish and Wildlife Service.

[FR Doc. 04–1559 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Notice of Meetings of the Klamath Fishery Management Council

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of meetings.

SUMMARY: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App. I), this notice announces three meetings of the Klamath Fishery Management Council, established under the authority of the Klamath River Basin Fishery Resources Restoration Act (16 U.S.C. 460ss *et seq.*). All meetings are open to the public. The Klamath Fishery Management Council makes recommendations to agencies that regulate harvest of anadromous fish in the Klamath River Basin. The objectives of these meetings are to hear technical reports, to discuss and develop Klamath fall Chinook salmon harvest management options for the 2004 season, and to make recommendations to the Pacific Fishery Management Council and other agencies.

DATES: The first meeting will be from 12 p.m. on March 1, 2004, to 5 p.m. on March 3, 2004. The second meeting will be from 8 a.m. to 5 p.m. on March 8, 2004. At the March 8, 2004, meeting, the Klamath Fishery Management Council may schedule short follow-up meetings to be held between March 9–12 at the same location. The third meeting will be from 3 p.m. to 8 p.m. on April 4, 2004. At the April 4, 2004, meeting, the Klamath Fishery Management Council may schedule short follow-up meetings to be held between April 5–9 at the same location.

ADDRESSES: The March 1–3, 2004 meeting will be held at the Yurok Tribal Headquarters, 15900 Highway 101, Klamath, California 95548. The March 8–12, 2004, meeting will be held at the Sheraton Tacoma Hotel, 1320 Broadway Plaza, Tacoma, Washington. The April 4–9, 2004, meeting will be held at the Red Lion Hotel Sacramento, 1401 Arden Way, Sacramento, California. The March, 2004, meeting in Tacoma, Washington, and the April, 2004, meeting in Sacramento, California, are held concurrent with the meetings of the Pacific Fishery Management Council.

FOR FURTHER INFORMATION CONTACT: Phil Detrich, Field Supervisor, U.S. Fish and Wildlife Service, 1829 South Oregon Street, Yreka, California 96097, telephone (530) 842–5763.

SUPPLEMENTARY INFORMATION: For background information on the Klamath Fishery Management Council, please refer to the notice of their initial meeting that appeared in the **Federal Register** on July 8, 1987 (52 FR 25639).

Dated: January 20, 2004.

D. Kenneth McDermond,

Acting Manager, California/Nevada Operations Office, Sacramento, CA.

[FR Doc. 04–1578 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

Environmental Water Account, San Francisco Bay/Sacramento-San Joaquin Delta, California

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice of Availability of the Final Environmental Impact Statement/ Environmental Impact Report (EIS/EIR).

SUMMARY: Pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), the Bureau of Reclamation (Reclamation) and the California Department of Water Resources (DWR) have prepared a Final EIS/EIR for the Environmental Water Account (EWA).

The purpose of the EWA is to provide water for the protection and recovery of at-risk native fish species beyond the amount of water available from existing regulatory actions related to State Water Project/Central Valley Project operations.

The Notice of Availability of the Draft EIS/EIR was published in the **Federal Register** on Wednesday, July 16, 2003, (66 FR 42130). The written comment period on the Draft EIS/EIR ended Monday, September 15, 2003. The Final EIS/EIR contains responses to all comments received and changes made to the text of the Draft EIS/EIR as a result of those comments and any additional information received during the review period.

DATES: Reclamation will not make a decision on the proposed action until at least 30 days after release of the Final EIS/EIR. After the 30-day waiting period, Reclamation will complete a Record of Decision (ROD). The ROD will state the action that will be implemented and will discuss all factors leading to the decision.

ADDRESSES: A compact disc of the Final EIS/EIR may be requested from Ms. Sammie Cervantes, Bureau of Reclamation, 2800 Cottage Way, Sacramento, CA 95825, or by calling 916–978–5104, TDD 916–978–5608, or by e-mail at *scervantes@mp.usbr.gov.* The Final EIS/EIR is accessible at the following Web sites: *http://www.mp.usbr.gov* or *http://www.dwr.water.ca.gov.*

See Supplemental Information section for locations where a compact disc of the Final EIS/EIR is available for review.

FOR FUTHER INFORMATION CONTACT: Ms. Sammie Cervantes, Bureau of Reclamation, at 916–978–5104, TDD 916–978–5608, or by e-mail at *scervantes@mp.usbr.gov;* or Ms. Delores Brown, DWR, at 916–227–2407, or by e-mail at *delores@water.ca.gov.*

SUPPLEMENTARY INFORMATION: The EWA is a cooperative management program, the purpose of which is to provide protection to the at-risk native fish species of the Bay-Delta estuary through environmentally beneficial changes in SWP and CVP operations at no uncompensated water cost to the projects' water users. This approach to fish protection requires the acquisition of alternative sources of water supply, called EWA assets, that allow export pumping in the Sacramento-San Joaquin Delta to be modified to provide fishery benefits while also replacing the regular project water supply that otherwise might be interrupted or lost because of the changes to project operations. EWA assets may also be used to augment streamflows and Delta outflow.

Public workshops to discuss the purpose and content of the Draft EIS/EIR were held on the following dates and locations: Wednesday, July 16, 2003, in San Diego, CA; Monday, July 21, 2003, in Red Bluff, CA; Tuesday, July 22, 2003, in Fresno, CA; Wednesday, July 23, 2003, in Tracy, CA; and Tuesday, July 29, 2003, in Sacramento, CA. Public hearings were held on Monday, August 25, 2003, in Sacramento, CA; Tuesday, August 26, 2003, in Red Bluff, CA; and Thursday, August 28, 2003, in Fresno, CA.

A compact disc of the Final EIS/EIR is available for review at the following locations:

- Department of Water Resources, Division of Environmental Services, 3251 S Street, Sacramento, CA 95816;
- Bureau of Reclamation, Public Affairs Office, 2800 Cottage Way, Sacramento, CA 95825;
- California Bay-Delta Authority, 650 Capitol Mall, 5th Floor, Sacramento, CA 95812;
- Bureau of Reclamation, Denver Office Library, Building 67, Room 167, Denver Federal Center, 6th and Kipling, Denver, CO 80225, 303–445–2072;
- Natural Resources Library, U.S. Department of the Interior, 1849 C Street, NW., Main Interior Building, Washington, DC 20240–0001; and

• At various county libraries, contact Sammie Cervantes at 916–978–5104, TDD 916–978–5608, for specific locations.

It is Reclamation's practice to publicly disclose respondents' comments, including names and addresses. Respondents may request that their address be withheld from disclosure; this will be honored to the extent allowable by law. There may also be circumstances in which a respondent's identity may be withheld from disclosure; again, this will be honored to the extent allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. All submissions from organizations or businesses will be publicly disclosed in their entirety.

Dated: January 14, 2004.

John F. Davis,

Deputy Regional Director, Mid-Pacific Region.

[FR Doc. 04–1553 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–MN–P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

[INT–DES–04–3]

Platte River Recovery Implementation Program

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice of availability of the draft environmental impact statement.

SUMMARY: Pursuant to the National Environmental Policy Act (NEPA) of 1969 (as amended), the Bureau of Reclamation (Reclamation) and the U.S. Fish and Wildlife Service (Service) as lead agencies have prepared a draft programmatic environmental impact statement (DEIS) for the Platte River Recovery Implementation Program (Program). This DEIS also serves as the Biological Assessment necessary for consultation under Section 7 of the Endangered Species Act (ESA). In 1997, the States of Nebraska, Wyoming, and Colorado and the U.S. Department of the Interior (Interior) signed a *Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitats Along the Central Platte River, Nebraska (Cooperative Agreement).* In this document, the signatories agreed to pursue a basinwide, cooperative approach to improve and maintain habitat for four threatened and endangered species—the whooping crane, interior least tern, piping plover, and pallid sturgeon (target species) in the Platte River in Nebraska.

DATES: A 60-day public review period commences with the publication of this notice, or until April 2, whichever comes later. Public hearings on the DEIS will be held during the month of March. Times and locations will be announced in the **Federal Register** and local media.

ADDRESSES: Written comments on, or requests for copies of, the DEIS should be addressed to Platte River EIS Office (PL–100), PO Box 25007, Denver, Colorado, 80225–0007; telephone: (303) 445–2096, or by sending an email request to *platte@prs.usbr.gov*. The document is available on the Internet at *http://www.platteriver.org*. Copies of the DEIS area also available for public inspection at the locations listed under the **SUPPLEMENTARY INFORMATION** section.

SUPPLEMENTARY INFORMATION: Reclamation and the Service have prepared this DEIS to analyze the impacts of the First Increment (13 years) of a proposed Program to benefit the target species and their habitat in the Platte River Basin and to provide compliance with the ESA for certain historic and future water uses in each State. The habitat objectives of the proposed Program include: improving flows in the Central Platte River through water re-regulation and conservation/supply projects; and protecting, restoring, and maintaining at least 10,000 acres of habitat in the Central Platte River area between Lexington and Chapman, Nebraska. The DEIS analyzes the impacts of four alternatives to implement the Program.

The programmatic DEIS focuses on impacts that the Program may have on hydrology, water quality, land, target species and their habitat, other species, hydropower, recreation, economics, and social and cultural resources. Subsequent NEPA and ESA documents required for implementation of specific Program actions will be tiered off of this document.

DEIS available for public inspection at the following locations:

• Bureau of Reclamation, Public Affairs Office, 1849 C Street, NW., Washington, DC 20240

• Bureau of Reclamation, Platte River EIS Office, 44 Union Blvd., Suite 100, Lakewood, CO 80228

• Bureau of Reclamation, Great Plains Regional Office, 316 N. 26th Street, Billings, MT 59101

• Bureau of Reclamation, Eastern Colorado Area Office, 11056 W. County Rd. 18E, Loveland, CO 80537–9711

• U.S. Fish and Wildlife Service, 203 W. 2nd Street, Grand Island, NE 68801

• U.S. Fish and Wildlife Service, 4000 Airport Parkway, Cheyenne, WY 82001

Libraries:

• Omaha Public Library, 215 South 15th Street, Omaha, NE 68102

• Scottsbluff Public Library, 1809 Third Avenue, Scottsbluff, NE 69361

• University of Nebraska at Kearney, Calvin T. Ryan Library, Kearney, NE 68849–2240

• University of Nebraska at Lincoln, Love Memorial Library, Lincoln, NE 68588–4100

• Grand Island Public Library, 211 North Washington, Grand Island, NE 68801

• North Platte Public Library, 120 West 4th Street, North Platte, NE 69101

• Goodall City Library, 203 W. A Street, Ogallala, NE 69153

• Natrona County Public Library, 307 East 2nd Street, Casper, WY 82601

• Wyoming State Library, 2301 Capitol Avenue, Cheyenne, WY 82002–0002

• University of Wyoming, Coe Library, 13th & Ivinson Streets, Laramie, WY 82071–3334

• Goshen County Library, 2001 East A Street, Torrington, WY 82240

• Carbon County Government Public Library, Rawlins, WY 82301

• Library, 2660 Peck Avenue, Riverton, WY 82501–2273

• University of Colorado, Boulder, Norlin Library, 1720 Pleasant Street, Boulder, CO 80309–0184

• Denver Public Library, 10 West 14th Avenue Parkway, Denver, CO 80204–2731

• Colorado State University, William E. Morgan Library, Fort Collins, CO 80523–1019

• University of Northern Colorado, James A. Michener Library, 501 20th Street, Greeley, CO 80639–0091

• Jefferson County Public Library, Lakewood Library, 10200 West 20th Avenue, Lakewood CO 80215–1402

• Julesburg Public Library, 320 Cedar Street, Julesburg, CO 80737–1545

• Sterling Public Library, 420 N. 5th Street, Sterling, CO 80751–0400

• Loveland Public Library, 300 N. Adams, Loveland, CO 80537–5754

• Fort Morgan Public Library, 414 Main Street, Fort Morgan, CO 80701–2209

• Garfield County Public Library, 413 9th Street, Glenwood Springs, CO 81601–3607

Public Disclosure Statement

Comments received in response to this notice will become part of the administrative record for this project and are subject to public inspection. Comments, including names and home

addresses of respondents, will be available for public review. Individual respondents may request that Reclamation and the Service withhold their home address from public disclosure, which will be honored to the extent allowable by law. There also may be circumstances in which Reclamation and the Service would withhold a respondent's identity from public disclosure, as allowable by law. If you wish to have your name and/or address withheld, you must state this prominently at the beginning of your comment. Reclamation and the Service will make all submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses available for public disclosure in their entirety.

Dated: January 16, 2004.

Willie R. Taylor,

Director, Office of Environmental Policy and Compliance.

[FR Doc. 04–1554 Filed 1–23–04; 8:45 am]

BILLING CODE 4310–MN–P

INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 731–TA–1034 and 1035 (Final)]

Certain Color Television Receivers From China and Malaysia

AGENCY: United States International Trade Commission.

ACTION: Scheduling of the final phase of antidumping investigations.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of antidumping investigations Nos. 731–TA–1034 and 1035 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of less-than-fair-value imports from China and allegedly less-than-fair-value imports from Malaysia of certain color television receivers, provided for in statistical reporting numbers 8528.12.2800, 8528.12.3250, 8528.12.3290, 8528.12.3600, 8528.12.4000, 8528.12.4400, 8528.12.4800, 8528.12.5200, and 8528.12.5600 of the Harmonized Tariff Schedule of the United States.[1]

For further information concerning the conduct of this phase of the investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

EFFECTIVE DATE: November 28, 2003.

FOR FURTHER INFORMATION CONTACT: Debra Baker (202–205–3180), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server (*http://www.usitc.gov*). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*.

SUPPLEMENTARY INFORMATION:

Background.—The final phase of these investigations is being scheduled as a result of an affirmative preliminary determination by the Department of Commerce that imports of certain color television receivers from China are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigations were requested in a petition filed on May 2, 2003, by Five Rivers Electronic Innovations, LLC, Greeneville, TN; the International Brotherhood of Electrical Workers, Washington, DC; and the IUE–CWA, the Industrial Division of the Communications Workers of America, Washington, DC.

Although the Department of Commerce has preliminarily determined that imports of certain color television receivers from Malaysia are not being and are not likely to be sold in the United States at less than fair value, for purposes of efficiency the Commission hereby waives rule 207.21(b)[2] so that the final phase of the investigations may proceed concurrently in the event that Commerce makes a final affirmative determination with respect to such imports.

Participation in the investigations and public service list.—Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigations need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of the investigations available to authorized applicants under the APO issued in the investigations, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigations. A party granted access to BPI in the preliminary phase of the investigations need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report.—The prehearing staff report in the final phase of the investigations will be placed in the nonpublic record on April 1, 2004, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

Hearing.—The Commission will hold a hearing in connection with the final phase of these investigations beginning at 9:30 a.m. on April 15, 2004, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before April 7, 2004. A nonparty who has testimony that may aid the

[1] For purposes of these investigations, the Department of Commerce has defined the subject merchandise as "complete and incomplete direct-view or projection-type cathode-ray tube color television receivers, with a video display diagonal exceeding 52 centimeters, whether or not combined with video recording or reproducing apparatus, which are capable of receiving a broadcast television signal and producing a video image. Specifically excluded from these investigations are computer monitors or other video display devices that are not capable of receiving a broadcast television signal."

[2] Section 207.21(b) of the Commission's rules provides that, where the Department of Commerce has issued a negative preliminary determination, the Commission will publish a Final Phase Notice of Scheduling upon receipt of an affirmative final determination from Commerce.

Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on April 9, 2004, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony *in camera* no later than 7 days prior to the date of the hearing.

Written submissions.—Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.23 of the Commission's rules; the deadline for filing is April 8, 2004. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission's rules. The deadline for filing posthearing briefs is April 22, 2004; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigations may submit a written statement of information pertinent to the subject of the investigations on or before April 22, 2004. On May 7, 2004, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before May 11, 2004, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission's rules. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002).

In accordance with sections 201.16(c) and 207.3 of the Commission's rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

By order of the Commission.

Issued: January 20, 2004.

Marilyn R. Abbott,

Secretary.

[FR Doc. 04–1535 Filed 1–23–04; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Inv. No. 337–TA–481]

In the Matter of Certain Display Controllers With Upscaling Functionality and Products Containing Same; Notice of Commission Determination To Remand Investigation to the Administrative Law Judge; Extension of Target Date for Completion of the Investigation

AGENCY: International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission determined to remand the above-referenced investigation to the presiding administrative law judge (ALJ) for further proceedings and making any findings necessary in order to make determinations with regard to the infringement, domestic industry, and validity issues under the Commission review in light of the claim construction determinations made by the Commission. The Commission also determined to extend the target date in this investigation by seven (7) months, *i.e.*, until August 20, 2004.

FOR FURTHER INFORMATION CONTACT: Michael Liberman, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 205–3115. Copies of the public version of the ALJ's ID and all other nonconfidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 205–2000. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on October 18, 2002, based on a complaint filed by Genesis Microchip (Delaware) Inc. ("Genesis") of Alviso, California, against Media Reality Technologies, Inc. of Sunnyvale, California; Trumpion Microelectronics, Inc. of Taipei, Taiwan; and SmartASIC, Inc. ("SmartASIC") of San Jose, California. 67 FR 64411 (October 18, 2002). The complaint alleges violations of section 337 of the Tariff Act of 1930 in the importation and sale of certain display controllers with upscaling functionality and products containing same by reason of infringement of certain claims of U.S. Patent No. 5,738,867.

On January 14, 2003, the ALJ issued an ID (Order No. 6) terminating respondent SmartASIC from the investigation on the basis of a settlement agreement. On February 12, 2003, the Commission issued a notice of its decision not to review that ID (Order No. 6).

The evidentiary hearing in this investigation was held from July 14, 2003, through July 25, 2003. On October 20, 2003, the ALJ issued his final ID in which he found that there was no violation of section 337. All the parties to the investigation, including the Commission investigative attorneys filed timely petitions for review of various portions of the final ID, and all of them filed timely responses to the petitions.

On December 5, 2003, the Commission determined to review the final ID in part. The Commission issued a notice dated December 9, 2003, in which the Commission requested briefing, based on the evidentiary record, on the issues under review. All parties to this investigation filed timely written submissions, and timely reply submissions, regarding the issues under review.

Having reviewed the record in this investigation, including the ID and the written submissions of the parties, the Commission determined to make claim construction determinations with regard to the patent claims under review, and to remand the investigation to the ALJ for making infringement, domestic industry, and validity findings in light of the claim construction

determinations made by the Commission. In order to allow sufficient time to complete the remand, the Commission extended the target date for completion of the investigation by seven months, *i.e.*, until August 20, 2004.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in sections 210.45 and 210.51 of the Commission's Rules of Practice and Procedure (19 CFR 210.45, 210.51).

Dated: Issued: January 20, 2004.

By order of the Commission.

Marilyn R. Abbott,

Secretary.

[FR Doc. 04–1536 Filed 1–23–04; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731–TA–1062 (Preliminary)]

Kosher Chicken From Canada

Determination

On the basis of the record [1] developed in the subject investigation, the United States International Trade Commission (Commission) determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) (the Act), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Canada of ready-to-cook Kosher chicken and parts thereof (kosher chicken), provided for in subheadings 0207.11.00, 0207.12.00, 0207.1300, and 0207.14.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).[2]

Background

On December 1, 2003, a petition was filed with the Commission and Commerce by Empire Kosher Poultry, Inc., Mifflintown, PA, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of kosher chicken from Canada. Accordingly, effective December 1, 2003, the Commission instituted antidumping duty investigation No. 731–TA–1062 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** of December 11, 2003 (68 FR 69088, December 11, 2003). The conference was held in Washington, DC, on December 22, 2003, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determination in this investigation to the Secretary of Commerce on January 15, 2004. The views of the Commission are contained in USITC Publication 3669 (January 2004), entitled Kosher Chicken from Canada: Investigation No. 731–TA–1062 (Preliminary).

By order of the Commission.

Issued: January 20, 2004.

Marilyn R. Abbott,

Secretary.

[FR Doc. 04–1534 Filed 1–23–04; 8:45 am]

BILLING CODE 7020–02–P

[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

[2] Commissioner Marcia E. Miller made an affirmative determination.

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–53,638]

American Shoe Corporation, Skowhegan, Maine; Notice of Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, as amended, an investigation was initiated on November 25, 2003 in response to a petition filed on behalf of workers of American Shoe Corporation, Skowhegan, Maine.

The petitioning group of workers is covered by an active certification issued on March 18, 2002 which remains in effect until March 18, 2004 (TA–W–39,458). Consequently, further investigation in this case would serve no purpose, and the investigation has been terminated.

Signed at Washington, DC, this 4th day of January, 2004.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1519 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–52,751]

Cliffs Mining Services Company, Ishpeming, Michigan; Notice of Revised Determination on Reconsideration

On November 21, 2003, the Department issued an affirmative determination regarding application on reconsideration applicable to workers and former workers of the subject firm. The notice will soon be published in the **Federal Register**.

The initial determination stated that the subject worker group did not engage in production but provided engineering design, testing, management and technical support services for affiliates of the company. The initial investigation did not determine whether the workers were eligible to apply for Alternative Trade Adjustment Assistance since the workers were not found eligible to apply for Trade Adjustment Assistance.

On review of new information provided by the petitioner and the company official, it has been determined that subject company sales, production and employment declined during the relevant time periods, that the subject worker group was engaged in the production of iron pellets, that a majority of the workers' responsibilities involved testing and product quality control, and that a significant portion of their functions were dedicated to support an existing Trade-certified company (TA–W–40,489).

A review of the submitted documents revealed that least five percent of the workforce at the subject from is at least 50 years of age and that the workers possess skills that are not easily transferable. Competitive conditions within the industry are adverse.

Conclusion

After careful review of the additional facts obtained on reconsideration, I conclude that increased imports of articles like or directly competitive with those produced at the subject form contributed importantly to the declines in sales or production and to the total or partial separation of workers at the subject firm. In accordance with the provisions of the Act, I make the following certification:

All workers of Cliffs Mining Services Company, Ishpeming, Michigan, who became totally or partially separated from employment on or after August 19, 2002, through two years from the date of this

certification, are eligible to apply for adjustment assistance under section 223 of the Trade Act of 1974, are also eligible to apply for alternative trade adjustment assistance under section 246 of the Trade Act of 1974.

Signed in Washington, DC this 22nd day of December, 2003.

Elliott S. Kushner,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1523 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–40,717 and TA–W–40,717A]

DyStar LP, Coventry, RI, and DyStar LP, Corporate Office, Charlotte, NC; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 (19 U.S.C. 2273) the Department of Labor issued a Certification of Eligibility to Apply for Worker Adjustment Assistance on May 6, 2002, applicable to workers of DyStar LP, located in Coventry, Rhode Island. The notice was published in the **Federal Register** on May 17, 2002 (67 FR 35141).

At the request of a petitioner, the Department reviewed the certification for workers of the subject firm. The workers of DyStar LP produce textile reactive dyes. New information provided by a company official show that layoffs have occurred at the subject firm's headquarters in Charlotte, North Carolina. Workers at the headquarters provide administrative support services for the production of textile reactive dyes at the company's production facility in Coventry, Rhode Island.

It is the Department's intent to include all workers of DyStar LP affected by increased imports. Therefore, the Department is amending the certification to include workers of DyStar LP, Corporate Office in Charlotte, North Carolina.

The amended notice applicable to TA–W–40,717 is hereby issued as follows:

"All workers of DyStar LP, Coventry, Rhode Island (TA–W–40,717), and DyStar LP, Corporate Office, Charlotte, North Carolina (TA–W–40,717A), who became totally or partially separated from employment on or after January 9, 2001, through May 6, 2004, are eligible to apply for adjustment assistance under section 223 of the Trade Act of 1974."

Signed at Washington, DC, this 12th day of December, 2003.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1518 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–53,592]

Dystar LP, Corporate Office, Charlotte, NC; Notice of Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, as amended, an investigation was initiated on November 20, 2003, in response to a petition filed by a company official on behalf of workers of DyStar LP, Corporate Office, Charlotte, North Carolina.

The investigation revealed that workers of the subject firm are covered under an amended certification, TA–W–40,717A, that does not expire until May 6, 2004. Consequently, further investigation would serve no purpose and the investigation has been terminated.

Signed at Washington, DC, this 12th day of December, 2003.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1520 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–52,818]

Hewlett-Packard Company, Open VMS Data Protector Team, Colorado Springs, Colorado; Notice of Negative Determination Regarding Application for Reconsideration

By application of November 23, 2003, a petitioner requested administrative reconsideration of the Department's negative determination regarding eligibility for workers and former workers of the subject firm to apply for Trade Adjustment Assistance (TAA). The denial notice applicable to workers of Hewlett-Packard Company, Open VMS Data Protector Team, Colorado Springs, Colorado was signed on October 31, 2003, and published in the **Federal Register** on November 28, 2003 (68 FR 66878).

Pursuant to 29 CFR 90.18(c) reconsideration may be granted under the following circumstances:

(1) If it appears on the basis of facts not previously considered that the determination complained of was erroneous;

(2) If it appears that the determination complained of was based on a mistake in the determination of facts not previously considered; or

(3) If in the opinion of the Certifying Officer, a misinterpretation of facts or of the law justified reconsideration of the decision.

The TAA petition was filed on behalf of workers at Hewlett-Packard Company, Open VMS Data Protector Team, Colorado Springs, Colorado engaged in software engineering, such as programming, planning, testing and maintenance. The petition was denied because the petitioning workers did not produce an article within the meaning of section 222 of the Act.

The petitioner asserts that the negative decision for the petitioning worker group came as a result of an incorrect interpretation of production as stipulated in the Trade Act. The petitioner also asserts that workers were in fact producing an article, "HP Openview Storage Data Protector 5.1" and that this software engineered by workers should be considered a product for the reasons that it is a standalone application; is shipped on a CDrom, which contains the executable software; includes manuals; and has roadmaps.

Software and information systems are not listed on the Harmonized Tariff Schedule of the United States (HTSUS), published by the United States International Trade Commission (USITC), Office of Tariff Affairs and Trade Agreements, which describes all "articles" imported to or exported from the United States. This codification represents an international standard maintained by most industrialized countries as established by the International Convention on the Harmonized Commodity Description and Coding (also known as the HS Convention).

The Trade Adjustment Assistance (TAA) program was established to help workers who produce articles and who lose their jobs as a result of increases in imports of articles like or directly competitive with those produced at the workers' firm.

Throughout the Trade Act an article is often referenced as something that can be subject to a duty. To be subject to a duty on a tariff schedule, an article will have a value that makes it marketable, fungible and interchangeable for commercial purposes. But, although a

wide variety of tangible products are described as articles and characterized as dutiable in the HTSUS, software and associated information technology services are not listed in the HTSUS. Such products are not the type of employment work products that Customs officials inspect and that the TAA program was generally designed to address.

A National Import Specialist was contacted at the U.S. Customs Service to address whether software could be described as an import commodity. The Import Specialist confirmed that electronically transferred material is not a tangible commodity for U.S. Customs purposes. In cases where software is encoded on a medium (such as a CD Rom or floppy diskette), the software is given no import value, but rather evaluated exclusively on the value of the carrier medium. This standard is based on Treasury Decision 85–124 as issued on July 8, 1985, by the U.S. Customs Service. In conclusion, this decision states that "in determining the customs value of imported carrier media bearing data or instructions, only the cost or value of the carrier medium itself shall be taken into account. The customs value shall not, therefore, include the cost or value of the data or instructions, provided that this is distinguished from the cost or the value of the carrier medium."

Finally, the North American Industry Classification System (NAICS), designates all manner of custom software applications and software systems, including analysis, development, programming, and integration as "Services" (see NAICS #541511 and #541512.)

Only in very limited instances are service workers certified for TAA, namely the worker separations must be caused by a reduced demand for their services from a parent or controlling firm or subdivision whose workers produce an article and who are currently under certification for TAA.

Conclusion

After review of the application and investigative findings, I conclude that there has been no error or misinterpretation of the law or of the facts which would justify reconsideration of the Department of Labor's prior decision. Accordingly, the application is denied.

Signed in Washington, DC, this 15th day of January, 2004.

Elliott S. Kushner,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1522 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–39,458]

MacDonald Footwear, Inc.; Custom Shoes of Maine, American Shoe Corporation, Skowhegan, ME; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with section 223 of the Trade Act of 1974 (19 U.S.C. 2273) the Department of Labor issued a Certification of Eligibility to Apply for Worker Adjustment Assistance on March 18, 2002, applicable to workers of MacDonald Footwear, Skowhegan, Maine. The notice was published in the **Federal Register** on March 29, 2002 (67 FR 15226).

At the request of the State Agency, the Department reviewed the certification for workers of the subject firm. The workers were engaged in the production of hand-sewn shoes.

New information shows that that some workers separated from employment at the subject firm had their wages reported under two separate unemployment insurance (UI) tax accounts for Custom Shoes of Maine and American Shoe Corporation.

Accordingly, the Department is amending the certification to properly reflect this matter.

The intent of the Department's certification is to include all workers of MacDonald Footwear, Inc., Skowhegan, Maine who were adversely affected by increased imports.

The amended notice applicable to TA–W–39,458 is hereby issued as follows:

All workers of MacDonald Footwear, Custom Shoes of Maine, American Shoe Corporation, Skowhegan, Maine, who became totally or partially separated from employment on or after June 1, 2000, through March 18, 2004, are eligible to apply for adjustment assistance under section 223 of the Trade Act of 1974.

Signed at Washington, DC this 14th day of January 2004.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1527 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–51,325]

Powerwave Technologies, Including Temporary Workers of Volt Services Group, Santa Ana, CA; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

In accordance with section 223 of the Trade Act of 1974 (19 U.S.C. 2273) the Department of Labor issued a Certification of Eligibility to Apply for Worker Adjustment Assistance on April 17, 2003, applicable to workers of Powerwave Technologies, located in Santa Ana, California. The notice was published in the **Federal Register** on May 7, 2003 (68 FR 24503).

At the request of a petitioner, the Department reviewed the certification for workers of the subject firm. The workers of Powerwave Technologies, Santa Ana, California, produce power amplifiers for the telephone industry. New information shows that the subject firm utilized some workers of Volt Services Group to produce power amplifiers at the Santa Ana facility.

It is the Department's intent to include all workers of Powerwave Technologies, Santa Ana, California affected by increased imports. Therefore, the Department is amending the certification to include temporary workers of Volt Services Group producing power amplifiers at Powerwave Technologies, Santa Ana, California.

The amended notice applicable to TA–W–51,325 is hereby issued as follows:

"All workers of Powerwave Technologies, Santa Ana, California, and temporary workers of Volt Services Group producing power amplifiers at Powerwave Technologies, Santa Ana, California, who became totally or partially separated from employment on or after March 13, 2002, through April 17, 2005, are eligible to apply for adjustment assistance under section 223 of the Trade Act of 1974."

Signed at Washington, DC, this 3rd day of December, 2003.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1526 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–52,665]

Textron Fastening Systems, a Wholly-Owned Subsidiary of Textron, Inc., PFPD Plant, Tooling Department, Rockford, IL; Notice of Affirmative Determination Regarding Application for Reconsideration

By letter of November 5, 2003, a petitioner requested administrative reconsideration of the Department of Labor's Notice of Negative Determination Regarding Eligibility to Apply for Worker Adjustment Assistance, applicable to workers of the subject firm. The Department's determination notice was signed on September 4, 2003. The notice was published in the **Federal Register** on October 10, 2003 (68 FR 58719).

The Department reviewed the request for reconsideration and has determined that the petitioner has provided additional information. Therefore, the Department will conduct further investigation to determine if the workers meet the eligibility requirements of the Trade Act of 1974.

Conclusion

After careful review of the application, I conclude that the claim is of sufficient weight to justify reconsideration of the Department of Labor's prior decision. The application is, therefore, granted.

Signed at Washington, DC, this 17th day of December, 2003.

Elliott S. Kushner,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1525 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–52,705]

Trojan Steel Co., Charleston, West Virginia; Notice of Affirmative Determination Regarding Application for Reconsideration

By letter October 30, 2003, a petitioner requested administrative reconsideration of the Department of Labor's Notice of Negative Determination Regarding Eligibility to Apply for Worker Adjustment Assistance, applicable to workers of the subject firm. The denial notice was signed on September 26, 2003, and published in the **Federal Register** on November 6, 2003 (68 FR 62833).

The Department reviewed the request for reconsideration and has determined that it will conduct further investigation based on the inclusion of additional customers of the subject firm.

Conclusion

After careful review of the application, I conclude that the claim is of sufficient weight to justify reconsideration of the Department of Labor's prior decision. The application is, therefore, granted.

Signed at Washington, DC, this 6th day of January, 2004.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1524 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

DEPARTMENT OF LABOR

Employment and Training Administration

[TA–W–53,360]

Volt Services Group, Orange, California; Notice of Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, as amended, an investigation was initiated on October 28, 2003, in response to a petition filed by a state agency representative on behalf of workers of Volt Services Group, Orange, California, working at Powerwave Technologies, Santa Ana, California.

The worker group for which the petition was filed is covered under an amended trade adjustment assistance certification, TA–W–51,325. Consequently, further investigation would serve no purpose and the investigation is terminated.

Signed in Washington, DC, on this 3rd day of December 2003.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. 04–1521 Filed 1–23–04; 8:45 am]

BILLING CODE 4510–30–P

LIBRARY OF CONGRESS

Copyright Office

[Docket No. 2001–8 CARP CD 98–99]

Distribution of 1998 and 1999 Cable Royalty Funds

AGENCY: Copyright Office, Library of Congress.

ACTION: Final order.

SUMMARY: The Librarian of Congress, upon the recommendation of Register of Copyrights, is accepting in full the determination of the Copyright Arbitration Royalty Panel and is announcing the final Phase I distribution of cable royalties for 1998 and 1999.

EFFECTIVE DATE: January 26, 2004.

ADDRESSES: The full text of the CARP's report to the Librarian of Congress is available for inspection and copying during normal business hours in the Office of the General Counsel, James Madison Memorial Building, Room LM–403, First and Independence Avenue, SE., Washington, DC 20559–6000.

FOR FURTHER INFORMATION CONTACT: David O. Carson, General Counsel, or William J. Roberts, Jr., Senior Attorney, P.O. Box 70977, Southwest Station, Washington, DC 20024. Telephone: (202) 707–8380. Telefax: (202) 252–3423.

SUPPLEMENTARY INFORMATION:

Background

In 1976, Congress adopted a statutory license for cable television operators to enable them to clear the copyrights to over-the-air television and radio broadcast programming which they retransmit to their subscribers. Codified at 17 U.S.C. 111, the section 111 license allows cable operators to submit semiannual royalty payments, along with accompanying statements of account, to the Copyright Office for subsequent distribution to copyright owners of broadcast programming retransmitted by those cable operators. In order to determine how the collected royalties are to be distributed amongst the many copyright owners filing claims

for them, the Copyright Office, under the auspices of the Librarian of Congress, conducts a distribution proceeding under chapter 8 of the Copyright Act. Distribution of cable license royalties are conducted in two phases. In Phase I, the royalties are divided among eight categories or groups of copyright owners that represent all of the kinds of copyrighted broadcast programming carried by cable systems: movies and syndicated television programs; [1] sports programming; [2] commercial broadcast programming; [3] religious broadcast programming; [4] public television broadcast programming; [5] Canadian broadcast programming; [6] public radio broadcast programming; [7] and music.[8] In Phase II the money allotted each category is subdivided among the various copyright owners within that category. Today's proceeding is a Phase I proceeding for royalties collected from cable operators for the years 1998 and 1999.

The royalty payment scheme of the cable statutory license is technical, complex and, many would say, antiquated. The license places cable systems into three categories based upon the amount of money they receive from their subscribers for over-the-air broadcast stations. Small and medium-sized systems pay a flat fee. Large cable systems—whose royalty payments comprise the lion's share of the royalties to be distributed in this proceeding—pay a percentage of the gross receipts they receive from their subscribers for each distant over-the-air broadcast station they retransmit.[9] How much they pay for each broadcast station depends upon how the carriage of that station would have been regulated by the Federal Communications Commission ("FCC") in 1976, the year the current Copyright Act was enacted. The royalty scheme for large cable systems employs the statutory device known as the distant signal equivalent ("DSE"). Distant signals are determined in accordance with two sets of FCC regulations: the "must carry" rules for broadcast stations in effect on April 15, 1976, and a station's television market as currently defined by the FCC. 17 U.S.C. 111(f). A signal is distant for a particular cable system when that system would not have been required to carry the station under the FCC's 1976 "must carry" rules and the system is not located within the station's local market.

Large cable systems pay for carriage of distant signals based upon the number of DSE's they carry. The statute defines a DSE as "the value assigned to the secondary transmission of any nonnetwork television programming carried by a cable system in whole or in part beyond the local service area of the primary transmitter of such programming." 17 U.S.C. 111(f). A DSE is computed by assigning a value of one to a distant independent broadcast station, and a value of one-quarter to distant noncommercial educational and network stations, which do have a certain amount of nonnetwork programming during a typical broadcast day. Large cable systems pay royalties based upon a sliding scale of percentages of their gross receipts depending upon the number of DSE's they incur. The greater the number of DSEs, the greater the total percentage of gross receipts and, consequently, the larger the total royalty payment. The monies collected under this payment scheme are received by the Copyright Office and identified as the Basic Fund.

The complexity of the royalty payment mechanism does not, however, end with the Basic Fund. As noted above, the operation of the cable license is intricately linked with how the FCC regulated the cable industry in 1976. The Commission restricted the number of distant signals that cable systems could carry in 1976 (the distant signal carriage rules), and required them to black-out programming contained on a distant signal where the local broadcaster had purchased the exclusive right to that programming (the syndicated exclusivity rules). However, in 1980, the Commission took a decidedly deregulatory stance towards the cable industry and eliminated the distant signal carriage rules and the syndicated exclusivity ("syndex") rules. *Malrite T.V.* v. *FCC*, 652 F.2d 1140 (2d Cir. 1981), *cert. denied sub. nom., National Football League, Inc.* v. *FCC*, 454 U.S. 1143 (1982). Cable systems were now free to import as many distant signals as they desired without worry of restrictions.

Pursuant to its statutory authority and in reaction to the FCC's action, the Copyright Royalty Tribunal ("CRT") initiated a rate adjustment proceeding for the cable license to compensate copyright owners for the loss of the distant signal carriage rules and the syndex rules. This rate adjustment proceeding produced two new rates applicable to large cable systems making section 111 royalty payments. 47 FR 52146 (November 19, 1982). The first, to compensate for the elimination of the distant signal carriage rules, was the adoption of a royalty rate of 3.75% of a cable system's gross receipts for carriage of each distant signal that would not have been previously permitted under the former distant signal carriage rules. Distant signal royalties which are paid at the 3.75%—known as the "penalty fee" in cable circles—are identified by the Copyright Office as the "3.75% Fund" and are separate from royalties placed in the Basic Fund.

The second rate adopted by the CRT, to compensate for the elimination of the syndex rules, is known as the syndex surcharge. Large cable operators must pay this additional fee when the programming appearing on a distant signal imported by a cable system would have been subject to black-out protection under the FCC's former syndex rules.[10] Royalties comprising the syndex surcharge are identified by the Copyright Office as the "Syndex Fund"

[1] This category is known as "Program Suppliers" and is represented by the Motion Picture Association of America, Inc.

[2] This category comprises sports programming belonging to the National Football League, the National Hockey League, the National Basketball Association, Major League Baseball and the National Collegiate Athletic Association. The category is referred to as "Joint Sports Claimants" or "JSC."

[3] Commercial broadcast programming consists of copyright owners of commercial radio and television programming that are represented in this proceeding by the National Association of Broadcasters, Inc. The category is referred to as "NAB" in this document.

[4] Religious broadcast programming consists of various copyright owners of religious programming, and the category is referred to as "Devotional Claimants" in this document.

[5] Public television broadcast programming consists of various copyright owners of television programs broadcast by the Public Broadcasting Service. The category is referred to as "PBS" in this document.

[6] Canadian broadcast programming consists of various Canadian copyright owners whose programs are retransmitted by cable systems located near the U.S./Canada border. The category is referred to as "Canadian Claimants" in this document.

[7] Public radio broadcast programming consists of various copyright owners of radio programs transmitted by National Public Radio. The category is referred to as "NPR" in this document.

[8] Music is the copyrighted programming belonging to songwriters and music publishers and are represented by the American Society of Composers, Authors and Publishers ("ASCAP"), Broadcaster Music, Inc. ("BMI") and SESAC, Inc. This category is referred to as "Music Claimants" in this proceeding.

[9] The cable license is premised upon the Congressional judgment that cable systems should only pay royalties for the distant broadcast stations they bring to their subscribers and not for the local broadcast stations they provide. However, cable systems which carry only local stations and no distant ones (a rarity) are still required to submit a statement of account and pay a basic minimum fee.

[10] Royalties collected from the syndex surcharge have decreased from previous levels because the FCC has reimposed syndicated exclusivity protection in certain circumstances.

and are separate from royalties placed in the Basic Fund and the 3.75% Fund.

The royalties in these three funds—Basic, 3.75% and Syndex—are the royalties that are eligible for distribution to copyright owners of nonnetwork broadcast programming in a section 111 cable license distribution proceeding.

This Proceeding

On November 20, 2001, the Library of Congress opened Docket No. 2001–8 CARP CD98–99, a consolidated Phase I distribution proceeding for cable license royalties collected from cable operators for the years 1998 and 1999. Of the eight Phase I categories or "parties" [11] filing Notices of Intent to Participate in this distribution proceeding, two parties—Devotional Claimants and NPR—settled with the others as to the amount of their distribution and voluntarily withdrew their claims. The Library turned to the task of scheduling a Copyright Arbitration Royalty Panel ("CARP") proceeding for the remaining six parties and, after several requests for postponement from these parties, a final schedule was issued on October 28, 2002. Order in Docket No. 2001–8 CARP CD 98–99 (October 28, 2002). The six parties filed their written direct cases on December 2, 2002, and the Library conducted discovery and motions practice throughout the winter. On April 24, 2003, the Library convened the three-person CARP who conducted hearings on the written direct cases, received rebuttal testimony and considered each party's written proposed findings of fact and conclusions of law. The Panel reviewed and analyzed nearly 20,000 pages of testimony and issued a 94-page determination, complete with an appendix of the mathematical calculations performed by the CARP to arrive at the distribution percentages for each of the six parties for 1998 and 1999, and another appendix identifying all exhibits submitted during the proceeding and whether or not they were admitted into evidence. The CARP report represents six months of intensive work. Following is a summary.

The CARP Report

The six parties who litigated division of the 1998 and 1999 cable royalties have a long history in the distribution of section 111 royalties. When Congress created the cable license and the distribution process in the 1976 Copyright Act, it did not provide any criteria or guidelines for how the royalties should be divided amongst the various copyright owners. Consequently, in the first cable distribution proceeding for cable royalties collected in 1978, the Copyright Royalty Tribunal [12] identified five factors that would guide its distribution decisions. The primary factors were: (1) The harm caused to copyright owners by distant retransmissions; (2) the benefit derived by cable systems from distant retransmissions; and (3) the marketplace value of the works retransmitted. 45 FR 63026, 63035 (September 23, 1980). The Tribunal also identified two secondary factors for consideration: (1) The quality of the retransmitted programs; and (2) time-related considerations. *Id.*

As the years passed and subsequent distribution years were litigated, the Tribunal refined these criteria. Time-related considerations were given little weight in dividing the royalty pool and in the 1989 distribution determination, the Tribunal announced that program quality would no longer be considered. 57 FR 15287, 153303 (April 27, 1992) ("[Q]uality will no longer be a criterion in the Tribunal's distribution because it conflicts with the First Amendment"). When the Tribunal was replaced by the CARP system, the first, and until this proceeding only, CARP to conduct a Phase I cable distribution chose to focus solely on the marketplace value criterion and exclude all the others. The current CARP has chosen to embrace relative marketplace value of the programming retransmitted as the sole criterion governing distribution of the 1998 and 1999 royalties because the previous CARP's decision on this point was upheld by the Librarian and on appeal, and all six parties in this proceeding accepted that relative marketplace value is the sole relevant criterion.

Having decided that the relative marketplace value of broadcast programming retransmitted by cable systems during 1998 and 1999 will govern how the royalties will be divided among the six parties, the CARP considered how to evaluate it. Given that the cable license substitutes for marketplace negotiations in the buying and selling of broadcast programming, there is no real marketplace for those broadcast programs retransmitted by cable systems. Thus, the CARP determined that it must "'simulate [relative] market valuation' as if no compulsory license existed." CARP Report at 10. Forecasting a hypothetical marketplace absent the existence of the cable license is a difficult task. The Panel concluded, after considering several options, that marketplace negotiations for broadcast programming would most likely occur between individual cable operators (or perhaps multiple system operators or a collective that they might form) and individual broadcast stations that would act as intermediaries for copyright owners and that would license all the copyrighted programming broadcast by each station. As a result of this conclusion, the Panel observed that cable system operators (or multiple system operators or a collective) would face a fixed quantity of distant broadcast station programming in the hypothetical marketplace. The supply curve for each type of programming (movies, sports, music, etc.) would remain vertical, meaning that the supply of programming would remain the same irrespective of the price. Because of this, the Panel determined that in "the hypothetical marketplace structure that we envisage [it is] the 'demand side' that will determine relative values of each type of programming." *Id.* at 13 (footnote and citations omitted). This is an important conclusion of the CARP because it governs how the Panel evaluated each of the six parties' evidentiary submissions.

As with previous cable distribution proceedings, the two principal evidentiary offerings of the parties that attempt to determine the value of the six program categories are the Bortz survey and the Nielsen study. The Bortz survey, offered by the Joint Sports Claimants, is a statistical survey of a selected group of cable operators that asks those with programming responsibilities at the chosen cable systems what value they place on the six categories of programming involved in this proceeding. The responses to the inquiries posed by the survey are then distilled in an effort to attach the relative marketplace value to each program category. The Nielsen study, offered by Program Suppliers, takes a decidedly different approach by utilizing the data supplied by Nielsen Media Research measuring television viewing during 1998 and 1999. The purpose of the Nielsen study is to show the amount of viewing of distant signal programming by households and persons that are in the Nielsen People Meter sample. Both the Bortz survey and the Nielsen study have been used by the CRT and the prior cable distribution CARP in determining the

[11] These categories are referred to as "parties" hereafter because the copyright owners within each category agree, for Phase I purposes, to hire counsel to represent them collectively as a category throughout this distribution proceeding.

[12] The Copyright Royalty Tribunal ("CRT"), abolished in 1993, was the predecessor administrative body to the CARP system.

division of cable royalties, although both have received criticisms as to methodology and application. *See, e.g.* 57 FR 15287 (April 27, 1992) (1989 cable distribution); 61 FR 55653 (October 28, 1996) (1990–92 cable distribution).

After considering both the Bortz survey and the Nielsen study and examining their results, the CARP arrived at a significant conclusion. Unlike the CRT and the CARP in prior proceedings, the Panel determined that the Bortz survey best projected the value of broadcast programming in the hypothetical marketplace whereas the Nielsen study "does not afford an independent basis for determining relative value." CARP Report at 44. The Panel arrived at this conclusion because it determined that the Nielsen study did "not directly address the criterion of relevance to the Panel," to wit: "[t]he value of distant signals to [cable system operators] * * * in attracting and retaining subscribers." *Id.* at 38. "The Nielsen study reveals what viewers actually watched but nothing about whether those programs motivated them to subscribe or remain subscribed to cable." *Id.* The Panel did not discard the Nielsen study completely, however, and found that it could be a useful tool in those circumstances when the Bortz survey could not be used.[13]

Having chosen the Bortz survey as the most "robust" and reliably predictive model for determining value, the Panel considered its application to each of the six Phase I parties. With respect to Joint Sports Claimants, Program Suppliers and NAB, the Panel determined that "the Bortz survey is more reliable than any other methodology presented in this proceeding for determining the relative marketplace value of these three claimant groups" for the Basic Fund and the 3.75% Fund. *Id.* at 31. Consequently, these three parties received the royalty shares of the Basic Fund and the 3.75% Fund as determined by the Bortz survey,[14] adjusted for the settlement distribution percentages of NPR and the Devotional Claimants.[15]

The Bortz survey was not so "robust" with respect to PBS, Canadian Claimants and the Music Claimants. The Panel found that the Bortz survey undervalued PBS programming because it removed from its sample cable systems who carried a PBS station as their only distant signal and assigned a value of zero to PBS for those cable systems that carried commercial stations on a distant basis but not a PBS station. The "result is an exclusion of the category of cable operators that would be expected to give the highest relative value to a [PBS] distant signal," and the "exclusion of the [PBS]-only systems artificially depresses the [PBS] Bortz score. A consistent application of the Bortz methodology would arguably mean that if a CSO carries a [PBS] signal as its only distant signal, all other categories should automatically be assigned zeroes." *Id.* at 23. Despite these flaws, the Panel concluded that PBS's Bortz share of 3.2% for both 1998 and 1999 established a minimum or "floor" from which to determine PBS's net distribution percentages. The Panel then turned to PBS's principal evidentiary presentation as to its marketplace value—a study sponsored by Dr. Leland Johnson designed to show the number of subscribers receiving distant PBS signals during 1998 and 1999—and rejected it because it "attempt[s] to equate relative programming *volume* with relative programming *value*." *Id.* at 56 (emphasis in original). Instead, the Panel accorded weight to a fee generation approach (considering the royalties paid by cable systems into the 1998 and 1999 Basic Funds for carriage of PBS distant signals) along with the Bortz results because unlike other program categories such as sports or movies, PBS signals are retransmitted by cable systems as discrete, intact distant signals containing only PBS programming. The Panel also examined PBS's claims of "changed circumstances"[16] and found "no persuasive evidence that [PBS's] relative value has significantly either increased or decreased since 1990–92." *Id.* at 69. As a result, the Panel awarded PBS the same distribution percentage for the 1998 and 1999 Basic Funds that it received in the 1990–92 cable distribution proceeding. PBS did not receive a percentage of the 3.75% Fund or the Syndex Fund because it does not participate in those funds.

The Bortz survey is not designed to include Canadian Claimants and Music Claimants. With respect to Canadian Claimants, the Panel adopted a combination of the fee generation approach and changed circumstances. The Panel mostly, though not completely, accepted Canadian Claimants' proposed fee generation approach and determined that there were no significant changed circumstances that would significantly impact their award. As a result, Canadian Claimants received the distribution percentages yielded by the fee generation approach for the Basic Fund and the 3.75% Fund, adjusted to yield for net awards. Canadian Claimants do not share in the Syndex Fund.

Finally, with respect to the Music Claimants, the Bortz survey was not relevant because it does not measure music as a category of programming, and the fee generation approach is not applicable. The Panel rejected Music Claimants' arguments for using the 4.5% settled distribution percentage from the 1990–1992 cable proceeding as the base measurement of the relative value because the settlement by its terms had no precedential value and does not reflect how cable system operators would value music. Instead, the Panel accepted the testimony of Joint Sports Claimants' witness Dr. George Schink, who estimated a range for Music Claimants' award by comparing the amounts that Music Claimants receive in licensing fees from broadcasters and cable networks with the total programming expenses of those broadcasters and cable networks, as establishing the minimum of an award (2.3%), and used the 4.5% settled award from the 1990–1992 proceeding as the maximum. The Panel selected an award of 4.0% as falling within this "zone of reasonableness" as applied to the Basic Fund, 3.75% Fund, and the Syndex Fund for both 1998 and 1999. The remaining 96% of the Syndex Fund was awarded to Program Suppliers, consistent with prior rulings of the CRT.

The final distribution percentages are as follows:

[13] While finding that the Nielsen study could be useful for determining royalty shares where the Bortz survey did not yield complete or any results, the Panel expressly rejected the prior practice of the CRT and the 1990–1992 cable CARP of combining Bortz results with Nielsen results. *See, id.* 52–53 listing eight reasons why the practice is inappropriate.

[14] The shares of these parties yielded by the Bortz survey are adjusted slightly downward to account for allocation of the Music Claimants' award, since music is used in all programming categories.

[15] The Panel's approach for determining *net* royalty distribution percentages for all eight Phase I parties is as follows. Beginning with 100% of the royalty pools for 1998 and 1999 (all three funds for both years combined), the Panel removed NPR's settled distribution percentage-which is the subject of a privately negotiated deal between NPR and the seven other parties—off the top" of these monies. The Devotional Claimants' distribution percentage is stipulated for the Basic Fund and the 3.75% Fund for each year of the funds remaining after the NPR deduction. Next, the Panel determined *net* distribution percentages for PBS and Music (no Bortz results). Finally, the Panel adjusted the Bortz results for JSC, Program Suppliers, and NAB to reflect 100% of the royalties remaining after deduction of the NPR award.

[16] The doctrine of "changed circumstances" was created by the CRT as a way of determining a royalty distribution for a party by examining how that party's circumstances had changed from the last litigated proceeding. *Nat'l Ass'n of Broadcasters* v. *Copyright Royalty Tribunal*, 772 F.2d 922, 932 (D.C. Cir. 1985).

1998

Claimant	Basic fund	3.75% fund	Syndex fund
Devotional Claimants	1.19375	0.90725	0
Program Suppliers	37.80114	41.18124	96.00000
Joint Sports Claimants	35.78076	38.42541	0
NAB	13.96836	15.34209	0
PBS	5.49125	0	0
Music Claimants	4.00000	4.00000	4.00000
Canadian Claimants	1.76476	0.14401	0

1999

Category	Basic fund	3.75% fund	Syndex fund
Devotional Claimants	1.19375	0.90725	0
Program Suppliers	36.00037	39.13977	96.00000
Joint Sports Claimants	37.62758	40.47418	0
NAB	13.77736	15.12731	0
PBS	5.49125	0	0
Music Claimants	4.00000	4.00000	4.00000
Canadian Claimants	1.90971	0.35151	0

Petitions to Modify

As provided by the CARP rules, the parties to the proceeding were given 14 days to submit their petitions to modify the CARP report and an additional 14 days for a reply. Petitions to modify were received from Program Suppliers, PBS, Music Claimants and Canadian Claimants.[17] Replies were submitted by all parties.[18] Following is a synopsis of these petitions.

1. Program Suppliers

Program Suppliers received the largest reduction in their royalty award from the percentages set in the 1990–1992 distribution proceeding and, not surprisingly, therefore strongly contest the CARP's determination in this proceeding. Program Suppliers' arguments are made along three principal lines. First, they contend that the Panel improperly abandoned precedent by rejecting the Nielsen study and favoring the Bortz survey. Second, they charge that the Panel completely ignored compelling evidence presented by Program Suppliers regarding the relevance of viewing in determining program value. And third, Program Suppliers argue that rationales accepted by the Panel for setting the awards for PBS, Canadian Claimants and Music underscore the Panel's arbitrary decision making.

Program Suppliers submit that the CARP abandoned the precedent established by the CRT and the 1990–1992 cable distribution CARP which accorded value to the Nielsen study. Citing 17 U.S.C. 802(c), which provides that a CARP "shall act on the basis of a fully documented written record, prior decisions of the Copyright Royalty Tribunal, prior copyright arbitration royalty panel determinations, and rulings by the Librarian of Congress * * *," and *Nat'l Ass'n of Broadcasters* v. *Copyright Royalty Tribunal*, 772 F.2d 922, 932 (D.C. Cir. 1985), Program Suppliers argue that the CARP in this proceeding was required to begin with the distribution percentages from the 1990–1992 proceeding. Given that those numbers must be the starting point, the Panel could then "only depart from the existing allocation methodology where it either finds 'changed circumstances' or that the earlier methodology was wrong. It cannot, therefore, adopt 'one or more methodologies that provide reliable estimates of current * * * relative valuations.'' Program Suppliers' Petition to Modify at 9 (citing CARP Report at 14). Program Suppliers argue that the CARP has failed to find that changed circumstances warranted departure from the Nielsen study. To the contrary, the CRT as well as the 1990–1992 cable distribution CARP recognized the value of the Nielsen study. Program Suppliers admit that there have been criticisms of the Nielsen study in the past, but there have been criticisms of the Bortz survey as well. Program Suppliers assert that improvements were made in this proceeding to the Nielsen study and the Bortz survey, yet "the Panel recognizes, and even praises, the methodological improvements made to the Bortz Study, but maintains virtual silence regarding those made to the Nielsen Studies." *Id.* at 11. Nevertheless, criticisms of the Bortz survey remain, which the Panel acknowledged, thereby precluding the Panel from accepting the survey wholesale. Precedent has long established that actual viewing to programming is relevant to programming value, and it is arbitrary for the Panel to conclude otherwise.

Program Suppliers charge that the CARP ignored the compelling evidence that it submitted relevant to marketplace value. Contrary to the CARP's conclusion that cable operators only care about signing up and keeping subscribers and not about what they watch, Program Suppliers state that they presented considerable evidence demonstrating that cable operators do care about what their subscribers watch and will pay more for programming that receives high Nielsen viewing numbers.[19] Program Suppliers argue that evidence from the cable network marketplace demonstrates that viewing plays a critical role in determining the licensing fees paid by cable systems for these networks, yet the CARP completely ignored this evidence. They contend that the witness testimony they

[17] NAB submitted a petition to modify but later voluntarily withdrew it.

[18] Joint Sports Claimants requested an additional two days to submit their reply. No other party objected. That request is granted.

[19] Program Suppliers also note that the 1990–1992 CARP rejected the notion that viewing was immaterial to cable operators: "It is disingenuous to say that the cable system is interested in only attracting subscribers but is totally unconcerned with whether or not the subscriber, in fact, watches the programming." Program Suppliers' Petition to Modify at 15, citing CARP Report in Docket No. 94–3 CARP CD 90–92 at 44 (emphasis omitted).

presented demonstrating the importance of viewing to establishing licensing fees is not even discussed by the Panel, underscoring the arbitrary nature of their decision making.

Program Suppliers also charge that inconsistent treatment of similarly situated parties highlights the arbitrary nature of the Panel's approach. For example, the Panel relied on a fee generation approach in determining Canadian Claimants' award, but did not use it for similarly situated PBS. With respect to NAB, whose award nearly doubled from the 1990–1992 proceeding despite the fact that its Bortz numbers did not change substantially from that proceeding to the present one, "the Panel relied on the Nielsen viewing data to justify increasing NAB's share but ignored viewing when making other parties' allocations." *Id.* at 49. Likewise, the Panel announced that Dr. Gregory Rosston's regression analysis was useful in corroborating the results of the Bortz survey but did not analyze whether that same regression analysis corroborated the results of the Nielsen study.

Finally, Program Suppliers allege that Music Claimants' distribution percentages for 1998 and 1999 are arbitrary and should be no more than 2.3%—the floor to the zone of reasonableness taken from the study done by Dr. George Schink. "[T]he Panel articulated no reasoning or determinations of fact in its findings regarding Dr. Schink's license fee analysis that indicated a lack of reliability in the results." *Id.* at 53. Furthermore, the Panel never articulated a precise reason as to why it chose the distribution figure (4%) that it did.

2. PBS

Although PBS has asked for an award of 12% of the Basic Fund for 1998 and 1999, the CARP gave it the same award it received in the 1990–1992 cable distribution proceeding. PBS offers two principal arguments as to why the Panel's determination with respect to PBS is arbitrary and must be set aside. First, PBS submits that the Panel's logic is internally inconsistent. Second, the Panel acted arbitrarily by nearly doubling NAB's award from the 1990–1992 distribution proceeding while holding PBS's award constant. PBS then offers an evidentiary basis for the Librarian to increase its award.

PBS submits that the Panel's logic is internally inconsistent in two fundamental ways. First, after examining the Bortz survey and determining that it was inherently biased in its results against PBS (and therefore could only be used to establish the minimum award for PBS), the Panel then relied on those biased results to dismiss other methodologies for determining PBS's award. The Panel dismissed the quadrupling in PBS's Nielsen viewing share and the near doubling in PBS's subscriber instances share[20] from 1992 to 1998 by pointing to the lack of increase in PBS's Bortz share during that same period. "The biases in the Bortz results that made them unusable in determining [PBS's] share also make them unusable as a measure of changed circumstances * * *." PBS Petition to Modify at 6.

Second, PBS asserts that the Panel stated that it would rely on the Nielsen viewing data to assess PBS's changed circumstances since the 1990–1992 distribution proceeding, but then failed to do so.

> [T]he Panel did not do what it said it would do. Contrary to its own express statement, the Panel did *not* "rel[y] upon the Nielsen study" to assess changed circumstances as to [PBS]. The Panel did *not* adhere to its own statement that "Nielsen studies can serve as a tool for assessing changed circumstances whenever the Bortz survey cannot be used." To the contrary, the Panel *completely disregarded* and did not rely on the Nielsen viewing study as to [PBS] despite its own express ruling that the Bortz survey could *not* be used as to [PBS]. . . . The Panel's reasoning thus failed to adhere to the logical framework that it had established in the opinion.

Id. at 9 (emphasis in original; citations omitted).

PBS also charges that the Panel used NAB's increase in viewing share from the 1990–1992 distribution proceeding as corroboration that its award should nearly double from the prior proceeding, but then refused to use PBS's quadrupled viewing share as grounds to increase PBS's award from the prior proceeding. PBS contends that the Panel's refusal to credit its increased viewing share because its Bortz survey numbers had not significantly increased from 1992 to 1998 is wholly illogical when the Panel had already determined the Bortz survey was inherently biased against PBS.[21] If such "major bias" in the Bortz survey numbers for PBS was not present in the 1990–1992 proceeding but is present in this proceeding, then PBS's award from the prior proceeding relative to its Bortz share at the time must go up in this proceeding given the increase in its Bortz share in this proceeding. "In short, both [PBS] and NAB experienced sizeable increases in their "true" Bortz shares and Nielsen viewing shares between 1990–92 and 1998–99, yet the Panel decided to nearly double NAB's award while holding [PBS's] award constant." *Id.* at 12.

3. Canadian Claimants

The Canadian Claimants submit that the CARP made a mathematical miscalculation in Appendix B of its report that creates a computational side effect and results in a loss of its Basic Fund award. Specifically, Canadian Claimants argue that they should receive the share yielded by the fee generation approach adopted by the Panel reduced only for net awards to Music, the Devotional Claimants, and NPR, and not the net share awarded to PBS.

The CARP's award to Canadian Claimants is part of a four-step process. First, the Panel adopted the Bortz shares of Program Suppliers, Joint Sports Claimants and NAB and adjusted them to equal 100%. Next, the Panel focused on Canadian Claimants using the fee generation approach[22] and determined the amount of the Basic Fund for 1998 and 1999 that was generated by cable systems paying for distant Canadian signals. Within the percentage for each year, the Panel identified the amount of fees attributable to Canadian Claimants' programming, Program Suppliers' programming and Joint Sports Claimants' programming based upon a survey presented by Dr. Debra Ringold. Since Dr. Ringold did not analyze the fees generated by the other parties in this proceeding, the Panel excluded them and adjusted her numbers to equal 100%. Third, the Panel took the adjusted Canadian numbers and added them to the Bortz-generated numbers for Program Suppliers, JSC and NAB, and adjusted those to 100%. Finally, the Panel combined the numbers for these four parties with the net awards determined for PBS, Devotional Claimants and NPR and adjusted them so all final distribution percentages would equal 100%.

The Panel's approach, according to Canadian Claimants, is flawed in several respects. First, Canadian Claimants charge that the combination process in step four should not have included PBS since, unlike the other categories, PBS programming does not appear on Canadian signals. Including PBS programming is inconsistent with the

[20] "A 'subscriber instance' is defined as one subscriber having access to one distant signal." PBS Petition to Modify at 6 n.4.

[21] The 1990–1992 CARP, unlike the present CARP, did not find the Bortz survey to be inherently biased against PBS. That CARP did, however, give PBS an award in excess of its Bortz numbers.

[22] Once again, the "fee generation" approach examines the royalty fees actually paid by cable systems for Canadian programming carried on distant broadcast signals.

fee generation approach that the Panel said it was using. Second, by combining Canadian Claimants' fee generated numbers in step three with the Bortz numbers of Program Suppliers, JSC and NAB, the effect of the adjustment in step four is not the same for Canadian Claimants as it is for Program Suppliers, JSC and NAB. In step one, the Panel adjusted the Bortz numbers for Program Suppliers, JSC and NAB to equal 100% which meant they received a "bump up" in their actual numbers. Canadian Claimants received no such increase, meaning that when the Music, Devotional and PBS awards are deducted in step four, Canadians bear a higher pro rata loss to their Basic Fund award than do Program Suppliers, JSC, and NAB. "The effect of the Panel's approach is that the [Canadian Claimants] give[ ] up more of [their] initial award towards the 'net' claimants than does (sic) NAB, PS, or JSC, even though based on the rational (sic) behind the fee gen approach—the [Canadian Claimants] should give up none of its award to [PBS]." Canadian Claimants' Petition to Modify at 8. What the Panel should have done, according to Canadian Claimants, was to combine the Program Suppliers', JSC's, NAB's, Canadian Claimants' and PBS's awards before deducting the net awards to Music and Devotional Claimants.

4. Music Claimants

In determining the award to the Music Claimants, the CARP placed enough evidentiary weight on a study conducted by Sports Claimants' witness Dr. George Schink to use his distribution percentage as a "floor" in establishing the zone of reasonableness for Music Claimants' distribution percentage. Music Claimants argue that the CARP should have disregarded his testimony altogether. Additionally, Music Claimants charge that the Panel failed to give proper weight to the study it presented concerning music use from 1991/1992 to 1998/1999 and the witnesses it presented regarding increases in the use of music on broadcast programming from 1983 through 1999.

Music Claimants' main bone of contention with Dr. Schink's study is that he did not tailor it to the "unique characteristics of the distant signal market." Music Claimants' Petition to Modify at 6. Instead, he used data concerning music licensing fees in the broadcast television industry that included television networks and local stations, both of which are not relevant under the section 111 license. According to Music Claimants, the network music licensing data dramatically and unfairly lowers their distribution percentages for 1998 and 1999. Moreover, Dr. Schink's study also varies considerably from the approach adopted by the Copyright Royalty Tribunal in the 1978 and 1979 distribution proceedings—comparing music licensing fees to broadcast television expenditures—which did exclude network licensing data. The CARP failed to "explain adequately why, after some twenty years, it has become appropriate to use Network data to determine Music's share in a market in which Network programming is not compensable." *Id.* at 10.

Music Claimants also charge that the CARP acted arbitrarily by failing to recognize that music licensing fees are often paid on an interim basis while litigation in a rate court is pending and therefore do not reflect marketplace value. Dr. Schink should have used the fees that result from rate court proceedings, which he did not. The CARP did not determine this aspect of Dr. Schink's testimony to be defective because interim fees "might well *exceed* final fees." *Id.* at 11, citing CARP Report at 87 n.58 (emphasis in original). Music Claimants submit that this conclusion is erroneous and not supported by the record. Further, Dr. Schink's study did not present any 1999 data. In sum, his entire study should have been disregarded.[23]

Music Claimants also assert that the CARP failed to accord any weight to the testimony it presented regarding increased music use which is contrary to precedent from the 1983 distribution proceeding, the last litigated music award. "[T]he value of music is, at least in significant part, determined by the density of use [and] is consistent with the uncontradicted evidence before the CARP in this proceeding of how music license fees are set in the marketplace." *Id.* at 15.

Scope of the Librarian's Review

Section 802(f) of the Copyright Act directs the Librarian of Congress, on the recommendation of the Register of Copyrights, to either accept the determination of a CARP or, if he rejects it, to substitute his own determination after a full examination of the record created in the proceeding. 17 U.S.C. 802(f). The Librarian can only reject a CARP's determination if he finds that it is arbitrary or contrary to one or more provisions of the Copyright Act. *Id.*

[23] Music Claimants also assert that Dr. Schink's study was improperly presented during the rebuttal phase of this proceeding and Music Claimants could not present rebuttal testimony to his assertions.

The standard of review of a CARP determination by the Librarian has been thoroughly discussed in prior proceedings for both royalty distributions and rate adjustments and will not be repeated here. See Distribution of 1990–92 Cable Royalty Funds, 61 FR 55653 (October 28, 1996); Rate Adjustment for the Satellite Carrier Compulsory License, 62 FR 55742 (October 28, 1997); Distribution of 1993–97 Cable Royalty Funds, 66 FR 66433 (December 26, 2001); Determination of Rates and Terms for the Digital Performance Right in Sound Recordings and Ephemeral Recordings, 67 FR 45240 (July 8, 2002). Suffice to say, the scope of review is limited and is highly deferential to the panel members who serve as factfinders in a proceeding and are in the best position to judge the credibility of testimony and weigh the evidence. The Librarian will "not second guess a CARP's balance and consideration of the evidence, unless its decision runs completely counter to the evidence presented to it." 62 FR 55742, 55757 (October 28, 1997), citing 61 FR 55653 (October 28, 1996) (1990–92 Cable Royalty Fund Distribution Proceeding). Even if the Register and the Librarian would have reached different conclusions, the determination of the CARP will stand if it is not arbitrary or contrary to the Copyright Act. 63 FR 49823, 49828 (September 18, 1998) (Noncommercial Broadcasting Rate Adjustment Proceeding). In sum, if a CARP's determination falls within a "zone of reasonableness" the Librarian will not disturb it. *National Cable Television Ass'n* v. *Copyright Royalty Tribunal,* 734 F.2d 176, 182 (D.C. Cir. 1983).

The Program Suppliers' Award

1. The CARP's Approach

For almost 25 years, the distant signal viewing study (the Nielsen study) presented by the Program Suppliers has been credited by the CRT and the CARPs in determining royalty distributions in cable proceedings. In the early cable proceedings, the Nielsen study was the premier piece of evidence used to determine distributions. The CARP in this proceeding, however, noted an historical trend that has significantly decreased the preeminence of the Nielsen study. CARP Report at 33 ("Over the years, however, the CRT placed less reliance on the Nielsen study"). Indeed, it remarked that in the 1990–92 cable distribution "[f]or the first time, the Bortz survey was given greater weight than the Nielsen study." *Id.* As a result of this observation, its construct of the hypothetical

marketplace and its thorough examination of the Nielsen study and Bortz survey, "the Panel conclude[d] that the Nielsen study provides relevant viewing information but, as tacitly conceded by the [Program Suppliers] for the first time, without a means of translating viewing shares to value, the study does not afford an independent basis for determining relative value." *Id.* at 44.

The devaluation of the Nielsen study is a result of the Panel's consideration of the hypothetical marketplace. In deciding how to determine the relative marketplace value, the only relevant criterion, of the six programming categories in this proceeding, the Panel hypothesized how the distant signal marketplace for cable operators would function in the absence of the section 111 license. The Panel concluded that in the traditional supply and demand paradigm, the supply side facing cable operators (*i.e.*, the amount of distant broadcast programming available) is fixed, meaning that the supply of programming remains the same irrespective of the price. As a result of this, it is the demand side (*i.e.*, cable operators) that will determine the relative value of programming. Consequently, evidence that demonstrated how cable operators valued each program category was, in the Panel's view, the best evidence of marketplace value.

After considering both the Bortz survey and the Nielsen study, the Panel concluded that the Bortz survey best measured the value of programming. The Nielsen study was not useful because it measured the wrong thing.

> [T]he Nielsen study does not directly address the criterion of relevance to the Panel. The value of distant signals to [cable system operators] is in attracting and retaining subscribers, and not contributing to supplemental advertising revenue. Because the Nielsen study "fails to measure the value of the retransmitted programming in terms of its ability to attract and retain subscribers," it cannot be used to measure directly relative value to [cable system operators]. The Nielsen study reveals what viewers actually watched but nothing about whether those programs motivated them to subscribe or remain subscribed to cable.

Id. at 38 (citations omitted). The Panel observed that apparently Program Suppliers themselves did not believe that raw Nielsen viewing data [24] was determinative of marketplace value since they offered the testimony of Dr. Arthur Gruen who performed an "avidity" adjustment in an effort to show how a sample demographic of 18 to 49 year olds favored certain types of programs over others. The Panel analyzed Dr. Gruen's avidity adjustments and concluded that, due to conceptual and methodological flaws, it failed to provide the needed conversion from raw Nielsen viewing numbers to relative value.

However, unlike the Nielsen study, the Panel found the Bortz survey to be "an extremely robust (powerful and reliably predictive) model for determining [the] relative value" of Program Suppliers, Joint Sports Claimants and NAB for both the Basic Funds and the 3.75% Funds. *Id.* at 31. First, the survey addressed the correct question in the Panel's view: What is the relative value of different programming categories to cable operators? Second, the Panel considered and rejected the three conceptual limitations of the Bortz survey expressed by the 1990–92 CARP Panel. The Panel determined that the relative brevity of the interviews conducted by Bortz Media with cable system programmers did not seriously jeopardize the results or skew them in favor of one or more parties. The concern that the Bortz survey only measures the attitudes of cable system programmers rather than the actual behavior of cable systems was alleviated by the regression analyses conducted by Dr. Gregory Rosston [25] which corroborated the Bortz survey results. And the concern that the Bortz survey did not take into account the supply side of programming in the supply and demand equation was not problematic because the Panel determined that the demand side of the equation dictated marketplace value. Finally, the Panel rejected the contention that the removal of broadcast superstation WTBS from the Bortz survey [26] should have resulted in a considerable change in Bortz numbers from the 1990–92 proceeding thereby undermining the validity of the survey.

[24] "Raw" Nielsen viewing data are the numbers of quarter-hour of programming viewed by cable system subscribers on distant broadcast stations as measured by the so-called "People Meters" that Nielsen places in the homes of those who participate in its surveys.

[25] Dr. Rosston, an NAB witness, analyzes the relationship between royalties paid by cable operators for the carriage of distant signals in 1998 and 1999 and the quantity of programming minutes by programming category on those distant signals.

[26] Superstation WTBS accounted for a considerable amount of royalties paid by cable operators under section 111 during previous cable proceedings. However, in 1998 WTBS converted from a superstation to a cable network, meaning that cable systems no longer license the programming on WTBS under the section 111 license.

2. Program Suppliers' Arguments

Program Suppliers offer a host of arguments in opposition to the CARP's report, criticizing the Panel's awards to all parties with the exception of the Canadian Claimants. The heart of Program Suppliers' Petition to Modify is a fierce attack on the Panel's decision to accept the Bortz survey as a better determinative of marketplace value than the Nielsen study. Program Suppliers offer several reasons why the Panel's decision is arbitrary.

First, Program Suppliers charge that the Panel improperly abandoned long-established precedent that recognizes the Nielsen study to be indicative of the marketplace value of programming. According to Program Suppliers, the Panel only could deviate from precedent if it found changed circumstances or new evidence in this proceeding and neither of those conditions existed. Second, Program Suppliers argue that the Panel's determination to consider the marketplace value of distant broadcast signal programming from cable systems' perspective is contrary to precedent and the legislative intent of section 111.

Third, Program Suppliers submit that the Panel was wholly precluded from relying on the Bortz survey because of the short duration of the interviews conducted by Bortz Media, the attitudinal nature of the survey, the lack of the supply side perspective and the miscategorization of programs. Finally, Program Suppliers charge that the Panel simply ignored much of the testimony presented by its witnesses and improperly discredited Dr. Gruen's adjustments to the raw Nielsen data.

3. Recommendation of the Register

a. The role of Precedent With Respect to the Nielsen Study

Section 802(c) of the Copyright Act states that CARPs "shall act on the basis of * * * prior decisions of the Copyright Royalty Tribunal, prior copyright arbitration panel determinations, and rulings by the Librarian * * *" 17 U.S.C. 802(c). The concept of "precedent" therefore plays an important role in CARP proceedings. The CARP in this proceeding recognized that, devoting a lengthy discussion to it, and acknowledged that it "must accord precedential value to prior awards." CARP Report at 13. Nonetheless, the Panel observed that prior decisions are not cast in stone and can be varied from when there are (1) changed circumstances from a prior proceeding or; (2) evidence on the record before it that requires prior conclusions to be

modified regardless of whether there are changed circumstances. *Id.* at 14.

The Register agrees with the Panel's analysis of the role of precedent. As we stated in the 1990–92 cable distribution proceeding, while a Panel must take account of precedent it "may deviate from it if the Panel provides a reasoned explanation of its decision to vary from precedent.* * * It would make little sense to require the CARPs to apply Tribunal [and CARP] precedent in all circumstances, and allow no deviation, especially in the area of determining the relevant factors for distributing royalties." 61 FR 55653, 55659 (October 28, 1996).

The Register disagrees with Program Suppliers' assertion that the CARP abandoned wholesale the role of the Nielsen study without adequate explanation. To the contrary, the Panel plainly articulated that the Copyright Royalty Tribunal placed less and less reliance on the importance of the Nielsen study over time and correctly observed that the CARP in the 1990–92 proceeding could not quantify the Nielsen data as evidence of market value. *See* 1990–92 Cable Royalty Distribution Proceeding, CARP Report at 44. It is the view of the Register that Program Suppliers overstate the precedential value of the Nielsen study. An examination of prior Phase I cable royalty distributions reveals that it is difficult, if not impossible, to determine precisely what evidentiary weight was given the Nielsen studies. It is clear, however, that the role of the Nielsen study, almost preeminent in the beginning, has eroded considerably through the years. *See* 47 FR 9879, 9892 (March 8, 1982) (1979 royalty distribution); 48 FR 9552, 9564 (March 7, 1983) (1980 royalty distribution); 51 FR 12792, 12808 (April 15, 1986) (1983 royalty distribution); 57 FR 15286, 15300 (April 27, 1992) (1989 royalty distribution). The Panel in this proceeding did nothing more than continue this trend and did so with a full explanation of its reasons.

Furthermore, the Panel did not completely disregard the Nielsen study. The Panel observed that "the Nielsen study provides relevant viewing information," and held that it can "serve as a tool for assessing changed circumstances whenever the Bortz survey cannot be used." CARP Report at 44 (footnote omitted). The Panel also noted that while raw Nielsen data is not indicative of marketplace value,[27] it might be converted into such evidence through proper adjustments. That Dr. Gruen's adjustments failed to make that conversion does not rule out the possibility that it could be made appropriately in the future. Clearly, the rejection of the Gruen testimony does not amount to wholesale abandonment of the Nielsen study.

Finally, the Nielsen study in the record in this proceeding is not like the Nielsen study in prior proceedings. Contrary to Program Suppliers' assertion, there are changed circumstances from prior proceedings and this Nielsen study as adjusted by Dr. Gruen is arguably new evidence. The Panel thoroughly examined it and more than adequately explained its reasons why it did not find this Nielsen study to be persuasive evidence of marketplace value. Consequently, it is the Register's view that the Panel was not arbitrary in its application of precedent in this proceeding.

b. The hypothetical marketplace

To assist in determining the relative marketplace value of programming in this proceeding, the CARP posited a hypothetical marketplace in which no statutory license exists and examined the factors that would likely control the valuation of programming. Applying traditional supply and demand analysis to the hypothetical marketplace, the Panel determined, based on record testimony, that the supply side of distant broadcast programming would remain fixed. Written Rebuttal Testimony of Dr. Andrew Joskow at 8. Because the supply of programming in such a market would remain fixed, value would be determined by the buyer side, *i.e.*, cable operators purchasing distant broadcast signals. According to the Panel, programming is significant to cable operators for its ability to attract and retain subscribers. In the Program Suppliers' view, this description of the hypothetical marketplace is fundamentally flawed, produces absurd results, and must be rejected. The Register does not agree.

While this is the first cable distribution CARP to describe in detail its construct for determining marketplace value, it is not the first time the economic factors comprising the discussion of the hypothetical marketplace have been addressed. The Bortz survey, a longtime mainstay of cable distribution proceedings, has always attempted to quantify how cable operators would buy programming in a marketplace in which the cable license did not exist. By deeming the Bortz survey as relevant to the value of distant signal programming, the 1990–92 cable distribution CARP and the CRT were necessarily accepting the assumptions of its construct. Neither the prior CARP nor the Tribunal ever concluded that the Bortz survey operated from false assumptions or asked the wrong questions. It therefore cannot be said that the CARP in this proceeding manufactured an economic theory out of thin air. While Program Suppliers may disagree with the Panel's consideration of the hypothetical marketplace and in particular its conclusion that it is the perspective of cable operators that best determines how much different categories of programming would be worth, the Panel's actions are based on prior decisions.

The Register also recommends rejection of Program Suppliers' contention that determining marketplace value from cable operators' perspective runs counter to the legislative intent of the cable license. While it is accurate to observe that the section 111 license is intended to compensate copyright owners for the use of their works, Program Suppliers erroneously assert that the use of copyrighted works must be determined by their viewing. Other methods may, and have, been appropriately employed. As the CRT has stated "viewing *per se* [does] not necessarily correspond to marketplace value." 57 FR 15286, 15301 (April 27, 1992). The Panel's decision to give greater weight to methodologies that quantify marketplace value other than from the perspective of viewing is not contrary to legislative intent.

c. Consideration of the Bortz Survey

Program Suppliers contend that the Bortz survey should have been rejected outright by the Panel because of four fundamental flaws: the interviews Bortz Media conducted with cable operator programmers were too short; the Bortz survey measures attitudes about programming and not actual behavior in the buying of programming; the survey fails to consider the supply side of distant broadcast programming; and the survey contains numerous program miscategorizations that render its results useless. For the reasons described below, none of these arguments preclude the Panel from accepting the results of the Bortz survey.

1. *Short duration of interviews.* The CARP in this proceeding addressed the criticism of the Bortz survey leveled by the 1990–92 cable distribution CARP that the interviews conducted by Bortz

[27] A point which Program Suppliers apparently now agree with, since they supplied Dr. Gruen's avidity adjustment approach to convert the raw Nielsen data into evidence of marketplace value. Program Suppliers did not make such adjustments in prior cable distribution proceedings and relied instead on raw Nielsen data as evidence of marketplace value.

Media with cable system programmers were too short to be accurate and concluded that "[t]hough the interviews are relatively brief, the Panel does not believe the execution of the survey seriously jeopardizes the integrity of the Bortz survey results." CARP Report at 20. This conclusion is specifically grounded by the Panel in record evidence. *See, id.* (testimony of witnesses Egan, Crandall, Fuller and Allen).[28] When a CARP's determination with respect to a particular point is grounded in record evidence, the Register will not second guess it. 67 FR 45239, 45253 (July 8, 2002) ("Where such determinations are based on testimony and evidence found in the record, the Register and the Librarian must accept the Panel's weighing of the evidence and its determination * * *").

2. *Attitudes v. behavior.* Another criticism of the Bortz survey by the 1990–92 cable distribution CARP was that the Bortz survey measured the attitudes of cable system programmers as opposed to their actual behavior in purchasing distant broadcast signals. The Panel in this proceeding, however, concluded that such a criticism was not valid, stating that "uncontroverted testimony and years of research indicate rather conclusively that constant sum methodology, as utilized in the Bortz survey, is highly predictive of actual marketplace behavior." *Id.* at 21. This statement is based on the testimony of Dr. Debra Ringold, a Canadian Claimants' witness who testified on the use of constant sum methodologies. In addition, the regression analysis conducted by Dr. Rosston, which did measure actual behavior, corroborated the results of the Bortz survey. Because the CARP's determination is record based, there are no grounds to disturb it.

3. *The supply side perspective.* Regarding the 1990–92 CARP's criticism of the lack of a supply side perspective, the CARP in this proceeding acknowledged that while the Bortz survey does not take into consideration the supply side of the supply and demand paradigm, the supply side perspective was not important because the Panel determined that in the hypothetical marketplace it was considering, the supply of distant broadcast programming is fixed and therefore does not determine the value of the programming (programming is determined from the demand side, *i.e.*, the cable system side). As discussed above, the Panel's discussion of the hypothetical marketplace is not arbitrary. Further, its conclusion that the supply side of distant broadcast programming remains fixed is based on record testimony. *See* Written Rebuttal Testimony of Dr. Andrew Joskow at 8.

4. *Program miscategorization.* Unlike its first three criticisms of the Bortz survey, program miscategorization was not identified by the 1990–92 cable distribution CARP as a potential limitation to the accuracy or usefulness of the Bortz survey. Program miscategorization, according to Program Suppliers, is the failure by cable system programmers to accurately identify the correct program categories (syndicated series and movies, sports, devotional programming, etc.) for individual programs when completing their Bortz Media surveys. Program Suppliers point to the testimony of JSC witness Michael Egan who, though he could not remember having completed a Bortz Media survey in the past, was questioned by Arbitrator Michael Young as to how he would categorize certain types of programs. Egan Tr. at 1334. Program Suppliers categorize two of his responses as incorrect thereby conclusively demonstrating, in Program Suppliers' view, that miscategorization of programs by respondents to Bortz Media surveys is considerable and invalidates the results.

The Panel did not specifically address the matter of miscategorization of specific programs, apparently determining that it was not an impairment to the results yielded by the Bortz survey. This is not surprising for two reasons. First, the Panel was not presented with evidence that demonstrated sufficiently widespread miscategorization of programs by Bortz Media respondents that would likely affect the survey results. Mr. Egan's responses to Arbitrator Young reflect only how he might respond and were offered by someone who could not recall if he had ever completed a Bortz Media survey. Second, and more importantly, the Bortz Media surveys do not question cable operators as to individual programs, but rather question them as to the value they attach to categories of programs. *See* Trautman Tr. at 324–25 (Respondent are "not thinking about each and every program that is aired on that signal. They are thinking about the general categories of program."). If Program Suppliers pointed to evidence that demonstrated that Bortz Media respondents misapprehended entire categories of programs when assigning them value, then the Panel might have been required to address such contentions. That is not the case here, and consequently the Panel did not act arbitrarily in considering the evidence presented regarding program miscategorization.

d. Consideration of the Nielsen Study

Program Suppliers contend that the CARP improperly ignored the weight to be given the Nielsen study contrary to precedent, unfairly criticized Dr. Gruen's adjustments to the raw Nielsen viewing data, and ignored most of the evidence that Program Suppliers put forth regarding the marketplace value of distant broadcast signal programming. None of these contentions require rejection of the CARP Report.

The role of precedent in CARP proceedings is discussed above. There is no requirement that automatic weight must be assigned to the Nielsen study. The Panel is required to examine the evidence on the record before it and may deviate from what the CRT or prior CARPs have done provided that it provides a reasoned explanation. This CARP did provide a reasoned and detailed explanation as to why the Bortz survey was more persuasive evidence of marketplace value than the Nielsen study. The Panel did not "abandon" the Nielsen study but instead continued a trend from prior decisions that placed less and less reliance on the weight to be accorded the Nielsen study. That Nielsen is less persuasive than Bortz is undoubtedly upsetting to Program Suppliers, but that result is supported by the evidence. Whether the Register or the Librarian might have attached greater evidentiary weight to the Nielsen study is irrelevant where the Panel's weighing of the evidence is supported by the record.

The Nielsen study presented in this proceeding is also not the same as in prior proceedings. This Nielsen study contains the adjustments performed by Dr. Gruen in an effort to convert raw viewing data into direct evidence of marketplace value. In performing his adjustments, Dr. Gruen focused on the viewing data for the 18–49 age demographic because he believed that this age group of cable subscribers was the most likely to buy the new ancillary and digital services offered by cable systems. Gruen Written Direct Testimony at 16–22. The Panel disagreed with Dr. Gruen's testimony on this point, agreeing instead with the testimony presented by several other witnesses that additional demographic categories are relevant. Once again, the CARP is in the best position to weigh the testimony of witnesses, and neither

[28] These witnesses testified that the recipients of the Bortz survey are typically experienced cable system programmers, aware of the kinds of programming that will increase subscriptions and can fully and accurately respond to the Bortz survey questions without advance preparation. Written Direct Testimony of Michael Egan at 4 n.1; Written Direct Testimony of Richard Crandall at 8–9; 1990–92 Cable Distribution Tr. at 5209 (John Fuller); Written Direct Testimony of Judith Allen at 4.

the Register nor the Librarian should second guess it. 62 FR 55742, 55757 (October 28, 1997). The Panel also disagreed with the mechanics of Dr. Gruen's avidity adjustment which attempted to show the loyalty of viewers to particular types of programs as an indication of their marketplace value. The Panel found the avidity adjustment to be flawed "both conceptually and methodologically" and rejected it based on its own analysis and the testimony of other witnesses. CARP Report at 42. There is nothing arbitrary about the Panel's approach or its conclusions.

Finally, Program Suppliers argue that the Panel ignored altogether the evidence they presented in this proceeding on marketplace value and evaded its responsibility to evaluate the testimony of each of their witnesses in the Report. Program Suppliers point to the following statement of the CARP as evidence of arbitrary decision making:

> [I]n this Report the Panel attempts to articulate only the principal grounds upon which our determinations are based. Of course, at arriving at these determinations, the Panel has carefully reviewed and considered all of the parties' evidence and arguments. To the extent this Report comports with a particular contention of a party, we accept that contention. To the extent that it does not, we reject that contention.

CARP Report at 7. The Register rejects Program Suppliers' contention that a CARP must articulate its consideration of every piece of evidence presented to it. To the contrary, the Copyright Act requires that the Panel set forth the facts it found relevant to its determination, not all the facts that were presented to it. 17 U.S.C. 802(e). Indeed, the cases cited by Program Suppliers in its Petition to Modify, *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968), *City of New York* v. *FCC*, 814 F.2d 720 (D.C. Cir. 1987), and *Motor Vehicle Mfrs. Ass'n et al.* v. *State Farm Mutual*, 463 U.S. (1983), require that a decision-making body must consider the pertinent factors and the important aspects of the problem it is facing, not that it consider and resolve (much less articulate) all the evidence presented to it.[29] The CARP in this proceeding fulfilled its obligation by carefully and precisely describing its rationale for preferring the Bortz survey over the Nielsen study and did not arbitrarily disregard relevant evidence.

The PBS's Award

1. The CARP's Approach

PBS requested a distribution of 12% of the Basic Fund for the 1998 and the 1999 cable royalties. PBS Proposed Findings of Fact and Conclusions of Law at 138–139. In support of its claim, PBS attempted to demonstrate to the CARP that circumstances had changed considerably in its favor from the 1990–1992 CARP proceeding wherein it received 5.5% of the Basic Funds for those three years.[30] PBS presented a study conducted by Dr. Leland Johnson which attempted to show a relationship between the relative number of "distant subscriber instances" [31] to PBS signals and the relative marketplace value of the programming carried on those signals. Dr. Johnson's original study sought to compare the number of distant subscriber instances of PBS programming in 1989 with those in 1999 but later adjusted his study to focus on observations for 1998 and 1999 without reliance on changes from earlier periods. Dr. Johnson concluded that if it is assumed that cable operators valued all distant subscriber instances equally, PBS would be entitled to an award of royalties equal to its share of distant subscriber instances. *Id.* at 4; Tr. 9196 (Johnson).

The CARP rejected Dr. Johnson's studies:

> Both subscriber instances studies offered by Dr. Johnson suffer from the same fundamental infirmity-they attempt to equate relative programming *volume* with relative programming *value*. Furthermore, Dr. Johnson's fundamental premise that [PBS] signals are at a level of "parity" with other signals is contradicted by substantial record evidence, including the Rosston regression analyses. * * *
>
> We view Dr. Johnson's change in subscriber instances theory as relatively unuseful because it is based on a measure of time, not value.

CARP Report at 56–57 (emphasis in original). Instead, the CARP looked to alternative methods to establish PBS's distribution awards. It considered the Bortz survey numbers for PBS but, unlike for Program Suppliers, JSC and NAB, found some methodological flaws that disadvantaged PBS. Specifically, it found that PBS programming was undervalued in the Bortz survey because cable systems that carried PBS as their only distant signal were removed from the survey and because cable systems that did not carry any PBS stations on a distant basis automatically assigned a zero value for PBS programming. *Id.* at 22–23. The CARP therefore determined that PBS's Bortz number of 3.2% for 1998 and 1999 established the "floor" to a PBS award and that the value of PBS programming "is somewhere above 3.2%." *Id.* at 26. The CARP then examined the royalty fees actually paid by cable operators in 1998 and 1999 for distant PBS signals—the fee generation approach—and attributed "some weight [to it], along with the Bortz floor and changed circumstances," in determining PBS's award. *Id.* at 64. The Panel then considered the evidence regarding changed circumstances from the 1990–92 CARP proceeding and concluded that "there is no persuasive evidence that [PBS's] relative value has significantly either increased or decreased since 1990–92." Id. at 69. Consequently, the Panel awarded PBS the same distribution percentage it received for 1991 and 1992 from the 1990–92 proceeding for both 1998 and 1999.[32]

2. PBS's Arguments

PBS finds three fundamental errors with the CARP report: it uses discredited evidence to refute Dr. Johnson's studies; it treats PBS differently from NAB; and it violates precedent by placing "some weight" on the fee generation method.

PBS's discredited evidence argument is centered on the Panel's analysis and use of the Bortz survey with respect to PBS. The Panel correctly determined, in PBS's view, that the Bortz survey results were inherently biased against PBS and understated the value of PBS programming. However, "in flat contradiction of its own ruling that the Bortz results were "inherently biased" and could not be used to value [PBS], the Panel then relied on those very same Bortz results to dismiss the relevance of the dramatic four-fold increase in [PBS's] viewing share." PBS Petition to Modify at 3. Specifically, PBS points to the Panel's consideration of changed circumstances for PBS from 1990–92 to this proceeding wherein the Panel observed that while PBS's distant subscriber instances share had gone up, its Bortz survey share remained the same, in contrast to NAB whose distant subscriber instances share and Bortz survey share had both gone up. CARP

[29] If a CARP were required to consider and articulate its resolution of every piece of evidence presented to it, then in a large proceeding such as this, the CARP Report might be, as this Panel observed, "thousands of pages." CARP Report at 7. We agree with the CARP's observation that such a requirement would be undesirable and not in line with the six-month time limitation placed by the Copyright Act on the length of proceedings before a CARP.

[30] For 1990, PBS received 5.5049750% of the Basic Fund, and for 1991 and 1992 it received 5.4912500% of those Basic Funds. 61 FR 55653, 55669 (October 28, 1996).

[31] A "distant subscriber instance" is a cable television subscriber receiving a distant PBS station. Written Direct testimony of Leland Johnson at 12.

[32] Again, that number is 5.4912500%. 61 FR at 55669.

Report at 66. PBS charges that it was illogical and inconsistent for the Panel to make this observation, particularly where the Panel had previously concluded that the Bortz survey was more biased against PBS during the 1998–99 period than it was during the 1990–92 period. *Id.* at 22–23. PBS also submits that the Panel failed to consider PBS's Nielsen viewing data at all despite the fact that it had ruled that the "Nielsen studies can serve as a tool for assessing changed circumstances whenever the Bortz survey can not be used." *Id.* at 44.

PBS argues that the Panel treated PBS disparately relative to NAB. Specifically, the Panel found that the increase of NAB's viewing share from 8 percent to 14.7 percent between the 1990–92 and 1998–99 proceedings "was apparently perceived as increased value by [cable operators] as confirmed by their responses to the Bortz study," which also reflected significant increases. However, "[i]n sharp contrast to its treatment of NAB, the Panel found that the *quadrupling* of [PBS's] viewing share did not establish any increase in [PBS's] relative value." PBS Petition to Modify at 11. "Such "disparate treatment of similarly situated parties" is a classic example of arbitrary action that demands a remedy." *Id.* at 12.

Finally, PBS submits that the Panel's decision to afford "some weight" to the fee generation approach is "contrary to 20 years of precedent, logic, and the record in this case-all of which established that "fees generated" are not a proper measure of market value." *Id.* at 13.

3. Recommendation of the Register

Unlike the awards to Program Suppliers, Joint Sports Claimants, NAB, and Canadian Claimants which where determined by use of a particular distribution methodology, the award to PBS was accomplished through consideration of a number of factors: the Bortz survey alone to establish a floor of 3.2%; "some weight" attributed to the fee generation approach which implied an award of 3.9%; and an examination of PBS's changed circumstances from the 1990–92 proceeding (wherein it received 5.49125%) to 1998–99. PBS asserts in its first argument, described above, that once the Panel used the Bortz survey to establish the floor value of PBS's award, it was precluded from considering any aspects of the survey in evaluating the changed circumstances from the 1990–92 to 1998–99 proceedings. The Register disagrees with this argument and concludes that it does not render the CARP decision arbitrary.

Contrary to PBS's assertion that the Panel did not consider PBS's Nielsen viewing shares after stating earlier in its report that it would do so, the Panel plainly observed that PBS's and NAB's Nielsen viewing shares (and their share of distant subscriber instances) had "dramatically" increased from 1990–92 to 1998–99. CARP Report at 66. The Panel then attempted to determine why this might have happened. It resolved that these increases were due to the elimination of superstations WTBS and WWOR from the cable royalty funds which accounted for a large portion of the viewing shares attributable to Program Suppliers. *Id.* at 66. The windfall to NAB and PBS in viewing shares did not, of course, automatically mean that the value of PBS's and NAB's programs went up as well since the Panel expressly concluded that viewing shares (and distant subscriber instances) do *not* measure program value. The Panel then noted that while both NAB's and PBS's viewing numbers (and distant subscriber instances) went up, only NAB showed a concomitant increase in its Bortz share between 1992 and 1998, while PTV did not: NAB's Bortz share increased 19% from 1992 to 1998 while PBS's went down from 3.0% in 1992 to 2.9% in 1998 and 1999. *Id.* Had the Panel stopped here and concluded that the value of NAB had gone up while the value of PBS programming remained the same, then PBS's argument that the Panel improperly used the Bortz survey might be persuasive. But the Panel did not stop there and undertook an examination of why PBS's Bortz numbers did not track the same type of path as NAB's given the increased viewing shares and distant subscriber instances to both. The Panel considered the two flaws in the Bortz survey for PBS-elimination of cable systems carrying only a distant PBS station and zero value to PBS programming for cable systems not carrying a distant PBS station—and determined that they did not by themselves explain the lack of a PBS Bortz survey increase. *Id.* ("While lack of increase in [PBS's] Bortz share might be explained partially by the elimination of [PBS]—only systems from the survey (which had a real impact for the first time in 1998), that factor certainly can not explain it fully"); *id.* at 66 n.36 ("The other anti-[PBS] bias (assignment of automatic zeroes) should not differentially affect the studies for either period."). The Panel then went on to consider other factors that might explain PBS's lack of an increase in Bortz share from 1992 to 1998 such as fierce competition from cable "look-alike" networks and increased carriage of distant PBS signals due to FCC-mandated must-carry rules as opposed to an increase in value of distant PBS stations to cable operators. These considerations led the Panel to conclude that "despite th[e] relative growth of [PBS] [in Nielsen viewing share and distant subscriber instances share], constancy in the raw Bortz shares from 1992 to 1998 likely reflects the net marketplace impact of all these circumstances." *Id.* at 68 (footnote omitted). This conclusion is grounded in record evidence, and the Register will not recommend that it be disturbed. See, 62 FR 55742, 55749 (October 28, 1997)("Because this conclusion is grounded in the record, it is not arbitrary.")

The Register also recommends that PBS's argument that it is being treated disparately *vis-a-vis* NAB is not persuasive. PBS creates the misperception that the Panel used NAB's doubling in Nielsen viewing share from 1990–92 to 1998–99 as *the* justification for increasing NAB's award. This is incorrect. NAB received its award based solely on the shares it received in the Bortz survey, as corroborated by the Rosston regression analysis. *See* CARP Report at 50–51. It was only after the Panel firmly concluded that the Bortz survey was *the* methodology to determine NAB's share that it made the statement that NAB's doubling in Nielsen viewing share "was apparently perceived as increased value by [cable system operators] as confirmed by their responses in the Bortz study." *Id.* at 51. This anecdotal observation merely confirmed what the Panel already determined: NAB would receive its Bortz survey shares. PBS's Nielsen viewing share was considered by the Panel but it, like the Bortz survey, did not play a decisive role in determining PBS's award. PBS and NAB are not similarly situated parties; consequently, the Panel did not treat them disparately.

Finally, the Register concludes the Panel's affording "some weight" to PBS's fee generation numbers does not fly in the face of 20 years of precedent, logic and the record. The Panel duly noted that the CRT previously took a dim view of using the fee generation method, but did use it to exclude PBS from sharing in the 3.75% fund and used it in the 1989 cable royalty distribution proceeding to reduce PBS's award. Further, the 1990–92 CARP expressly used the fee generation approach in determining the Canadian Claimants' award, a point which PBS

reluctantly admits.[33] While PBS adamantly opposes using the fee generation method for itself and others, there does exist precedent for using it. Furthermore, the Panel addressed and rejected PBS's testimony as to why the fee generation method was not appropriate, determining that while it is true that fees generated do not measure the absolute value of programming, it does not mean that they are not capable of measuring the relative value of programming between the claimant groups. *Id.* at 63–64. Nevertheless, the Panel elected not to accord full weight to the fee generation approach with respect to PBS; this clearly was within its discretion. *See, Nat'l Ass'n of Broadcasters* v. *Librarian of Congress*, 146 F.3d 907, 923 n.13 (The CARP is in the best position to weigh evidence and gauge credibility).

In sum, the Panel's treatment of PBS comports with its stated approach for determining a party's award that cannot be derived through application of a particular distribution methodology: examine that party's changed circumstances from its 1990–92 distribution award by examining the available record evidence. CARP Report at 16. There is nothing arbitrary to the approach or its application to PBS in this proceeding.

The Canadian Claimants' Award

1. The CARP's Approach

The Canadian Claimants requested the following distribution percentages: for 1998, 2.25479% of the Basic Fund and 0.17332% of the 3.75% Fund; for 1999, 2.48141% of the Basic Fund and 0.43023% of the 3.75% Fund. The Canadian Claimants principally rely on a "fee generation" approach—the section 111 royalties paid by cable operators for distant retransmission of Canadian signals—although they cite changed circumstances to corroborate the substantial increase requested from their 1990–92 distribution percentages.[34] Through an analysis of the volume of Canadian programming contained on Canadian broadcast signals and application of a constant sum survey, similar to the Bortz study, the Canadian Claimants' requested distribution percentages are based on their conclusion that approximately 70% of all programming contained on Canadian broadcast signals belongs to them; thus, they request 70% of the fees generated by Canadian signals.

The CARP generally accepted the Canadian Claimants' fee generation approach with some exceptions. Since there are no Bortz survey results for Canadian programming, the CARP used the award adopted in the 1990–92 proceeding as a reference point since it, too, was based on the fee generation approach. The Panel did not find any changed circumstances that merited an increase in the Canadian Claimants' award, other than the fact that Canadian signals generated substantially more revenues in 1998–99 than they did in 1990–92. As a result, Canadian Claimants received their fee generated award.

2. The Canadian Claimants' Arguments

The Canadian Claimants do not dispute the fee generation approach utilized by the CARP. Rather, they dispute the way in which their award was incorporated into the CARP's mathematical approach for establishing final distribution percentages. As discussed earlier in this Order, the CARP was cognizant that each party's distribution award could not be determined in a vacuum. Since different distribution methodologies were being employed to determine awards, adjustments must be made so that all awards when aggregated would equal the total royalty pools available. The CARP's mathematical approach to make all awards equal 100% of the funds is detailed in Appendix A of its report. Canadian Claimants' objection comes with respect to how its award was adjusted to account for the "net" award to PBS, the Music Claimants and the Devotional Claimants.

The gravamen of the Canadian Claimants' petition to modify is this: its award should have been combined with Program Suppliers, JSC, NAB and PBS before adjusting for the "net" awards to Music Claimants and Devotional Claimants. The Canadian Claimants submit that such result is fair for the following reasons. First, since the Panel adopted a fee generation approach for Canadian Claimants, they should receive precisely the percentages due them under that approach. The Panel's approach robs them of their full fee generation share and is contrary to the methodology the Panel stated that it was employing. Second, the fact that PBS received a "net" award from the Panel is unfair to Canadian Claimants particularly where there is no PBS programming on Canadian broadcast signals. Third, the Panel's mathematical approach described in Appendix A of its report took the Bortz survey results of Program Suppliers, JSC and NAB and adjusted them up to 100% before applying a pro rata reduction to those awards to account for the "net" awards to PBS, Music Claimants and Devotional Claimants. Canadian Claimants are forced to share in the pro rata reduction to account for the "net" awards, but did not share in the upward adjustment enjoyed by Program Suppliers, JSC and NAB.

3. Recommendation of the Register

In the 1990–92 cable distribution proceeding, the Librarian was called upon to make a "mathematical adjustment" to the distribution percentages of the Canadian Claimants for the 1991 and 1992 3.75% Funds. In that proceeding, the CARP intended to award Canadian Claimants its fee generation percentage of the 3.75% Funds, just as this CARP has intended to do. However, in the 1990–92 proceeding, the CARP failed to account for the fact that there are other program categories represented in the 3.75% royalties generated by distant Canadian broadcast stations. This omission, which the Panel later admitted was an error, necessitated a mathematical adjustment to the Canadian Claimants' 3.75% awards for 1991 and 1992 to account for the two other program categories (Program Suppliers and JSC) represented on Canadian signals. As a result, Canadian Claimants' distribution percentages for the two funds decreased slightly. *See* 61 FR at 55663.

In this proceeding, another "mathematical adjustment" is requested—this time in Canadian Claimants' favor. Unlike the previous proceeding, however, no adjustment is required here. The Register concludes that the Panel did not act arbitrarily in choosing the method that it did to reconcile all awards to equal 100% of the royalty pools. Some method of reconciliation was necessary because the Panel did not employ the same distribution methodology for all parties. Three of the parties—PBS, Music Claimants and Devotional Claimants—received "net" distribution awards because the Panel was unable to adopt a specific distribution methodology to calculate their awards.[35] CARP Report at 69 n. 42. The remaining parties' shares

[33] PBS attempts to distinguish the 1990–92 CARP's action by arguing that that Panel was essentially trapped into using the fee generation method because there was no other evidence presented by the parties from which to compute the Canadian Claimants' share. The same could potentially be said of this proceeding. As this CARP noted, all parties except PBS and Music (which is silent on the issue) support use of the fee generation approach in determining the Canadian Claimants' award.

[34] The Canadian Claimants' award for 1991 and 1992 was 0.955000% of the Basic Fund and 0.1871800% of the 3.75% Fund. 61 FR at 55669 (October 28, 1996).

[35] Devotional Claimants were a "net" award because they settled out of this proceeding for an agreed-upon percentage.

were derived by use of particular methodologies and their shares were reduced *pro rata* to account for the net awards. While the methodology-based parties do surrender a portion of their award to account for the others, it was not impermissible for the Panel to do this. It is true that the Panel could have chosen not to give a "net" award to either PBS or Music Claimants (or both) and made a *pro rata* reduction in those awards as well when it accounted for the entire distribution. Canadian Claimants submit that such an approach is particularly applicable to PBS since there is no public television programming contained on Canadian broadcast signals.[36] But while the Panel *could* have adopted this approach, it was not compelled to do so. A decisionmaker's choices between a number of reasonable alternatives cannot be considered arbitrary. *Georgia Indus. Group* v. *FERC*, 137 F. 3d 1358, 1364 (D.C. Cir. 1998). "The Register will not consider what the Panel could have done or what a party asserts it should have done, even if, had she heard th[e] proceeding in the first instance, she would have chosen another methodology." 63 FR 49823, 49829 (September 18, 1998).

The Music Claimants' Award

1. The CARP's Approach

Of all the awards made in this proceeding, it appears that the Panel was most troubled in establishing an award for the Music Claimants because of a lack of reliable evidence upon which to base the distribution. The Music Claimants did not participate in the 1990–92 distribution proceeding, instead settling for 4.5% of all three Funds. In this proceeding, they requested an award of 5.0% of each of the Basic Fund, the 3.75% Fund and the Syndex Fund. The Music Claimants' request for an increase is premised upon a music use study that purports to show an 11% increase in the use of music on distant signals between 1991–92 and 1998–99.

The CARP found the music use study to be unpersuasive and of no value. Instead, the CARP considered the study presented by Joint Sports Claimants' witness Dr. George Schink who compared the amounts of licensing fees that Music Claimants receive from broadcasters and cable networks outside of the statutory licensing scheme with the total programming expenses of those broadcasters and cable networks. Based on his study of broadcasters and cable networks, Dr. Schink concluded that the Music Claimants' 1998–99 share should be no higher than 2.33%. The Panel used this figure to establish the floor to the zone of reasonableness to fixing the Music Claimants' award (similar to the way in which the Panel used PBS's Bortz survey share to establish the floor for its award) but did not accept it fully because the study included fees paid by television networks who are not compensated under the section 111 licensing scheme. The Panel then looked to the last litigated net award for Music Claimants from the 1983 distribution proceeding—4.5%—and used that figure to establish the ceiling to the zone of reasonableness for the Music Claimants' award. The Panel then concluded that 4.0% of each of the three Funds was the appropriate distribution percentage.

2. The Music Claimants' Arguments

The Music Claimants argue that the CARP failed to properly consider the evidence they presented in this proceeding and should have wholly discarded the testimony of Dr. Schink. With respect to the music use study they presented, Music Claimants argue that "[t]he CARP gave insufficient weight to the testimony of ASCAP's Chief Economist, Dr. Peter Boyle, and BMI's witness, Frank Krupit, concerning the value of the [music use] study." Music Claimants Petition to Modify at 5. Music Claimants also charge that the CARP improperly gave no weight to the testimony of three of their witnesses who testified that the use of music in broadcast programming had dramatically increased from 1983 through 1999. Music Claimants also charge that the CARP ignored established precedent that music use is the way to determine the marketplace value of music.

With respect to Dr. Schink's study, Music Claimants charge that it is fatally flawed for three reasons. First, his inclusion of non-compensable network programming artificially depressed Music Claimants' distribution percentage. Second, his calculation was based in part on interim music licensing fees that do not reliably reflect the market value of music in the relevant years; and third, he presented no data for 1999. As a result of these flaws, and coupled with the fact that Dr. Schink's testimony was not presented until the rebuttal phase of this proceeding, Music Claimants submit that his testimony should have been completely disregarded.

3. Recommendation of the Register

Music Claimants' arguments in their Petition to Modify all suffer from the same flaw: they ask the Librarian to re-weigh the evidence. As we have made clear in this proceeding and others, the Librarian will not second guess a CARP and recast the evidence. "[T]he Librarian's scope of review is very narrow. This limited scope certainly does not extend to reconsideration of the relative weight to be accorded particular evidence, and the Librarian will not second guess a CARP's balance and consideration of the evidence, unless its decision runs completely counter to the evidence presented to it." 61 FR at 55663 (October 28, 1996). The CARP, not the Register or the Librarian, "is in the best position to weigh evidence and gauge credibility." *NAB* v. *Librarian of Congress*, 146 F.3d at 923 n.13 (D.C. Cir. 1998). Only if a CARP acts in complete contravention of the evidence and with no rational basis is the Librarian forced to reconsider the evidence. That is not the case here.

If the CARP in this proceeding had fully credited Dr. Schink's study and used it as *the* basis for determining Music Claimants' award, then Music Claimants' protestations might require intervention by the Librarian. But the Panel did not fully credit Dr. Schink's study, as Music Claimants reluctantly admit, and acknowledged the very flaws in the study that Music Claimants discuss in their Petition to Modify. *See* CARP Report at 84–87. Although the Panel explained its reservations about the Schink analysis, it found the study to be useful enough in establishing the *minimum* to Music Claimants' award. The Panel was well within its discretion to use the Schink study in this fashion.

Likewise, the CARP was well within its discretion to discount the testimony of three of Music Claimants' witnesses: ASCAP's Seth Saltzman, television and film critic Jeffrey Lyons and music composer W.G. "Snuffy" Walden. The testimony of these witnesses centered on their personal observations regarding a perceived increase in the use of music, particularly theme music, on broadcast television programming in recent years. Music Claimants submit that because the testimony of these witnesses was (in their opinion) unrebutted by other testimony, the CARP was compelled to accord it weight. This is not correct. The CARP is vested with discretion to gauge the credibility of witnesses, *NAB* v. *Librarian of Congress*, 146 F.3d at 923 n.13, regardless of whether other parties put forward other witnesses to

[36] It is interesting to note that NAB's programming is likewise not a part of the fee generation approach employed by the Panel. Only the programming of Program Suppliers, Joint Sports Claimants and Canadian Claimants are considered in the fee generation approach. *See* CARP Report at 73. NAB does not petition the Librarian for a similar increase in its award.

specifically rebut it. The Panel stated that the testimony of these witnesses was "anecdotal and subjective opinion," and that "[a]bsent quantitative corroboration, the Panel is unable to credit significantly this evidence." CARP Report at 75 n.46. This determination is within the discretion of the Panel and is not arbitrary. *See, also* 62 FR 55742, 55751 (October 28, 1997) (satellite royalty rate adjustment).

Finally, the Register does not agree with Music Claimants' contention that music use is the only way to determine the market value of music, and that "[t]he CARP ruled, contrary to all applicable music licensing precedent and without adequate explanation, that changes in music use were not relevant to the establishment of Music's award for 1998–99." Music Claimants' Petition to Modify at 5. This is not what the Panel said. Rather, the Panel found that Music Claimants' music use study failed to accurately demonstrate an increase in the use of music from the relevant starting point of 1983 (the time of the last litigated Music award) to 1998–99 because the data relied upon by Music Claimants "is too incomplete to provide reliable estimates." CARP Report at 82. The Panel did not say that music use was irrelevant; it accepted Dr. Schink's criticisms of the Music Claimants' study. That the CARP did not use data that focused on music use is not a rejection of music use *per se*; rather it was a rejection of the evidence of music use presented by Music Claimants.

Order of the Librarian of Congress

Having duly considered the recommendation of the Register of Copyrights regarding the report of the Copyright Arbitration Royalty Panel in the Phase I distribution of the 1998 and 1999 cable royalty funds, the Librarian of Congress adopts her recommendation to accept in full the Panel's determination. For the reasons stated in the Register's recommendation, the Librarian is exercising his authority under 17 U.S.C. 802(f) and is issuing this order setting forth the distribution of royalties. After deducting National Public Radio's 0.18% share for each year per its agreement with the other parties to this proceeding, it is ordered that the 1998 and 1999 cable royalties shall be distributed according to the following percentages:

1998 DISTRIBUTION

Claimant	Basic fund	3.75% fund	Syndex fund
Devotional Claimants	1.19375	0.90725	0
Program Suppliers	37.80114	41.18124	96.00000
Joint Sports Claimants	35.78076	38.42541	0
NAB	13.96836	15.34209	0
PBS	5.49125	0	0
Music Claimants	4.00000	4.00000	4.00000
Canadian Claimants	1.76476	0.14401	0

1999 DISTRIBUTION

Claimant	Basic fund	3.75% fund	Syndex fund
Devotional Claimants	1.19375	0.90725	0
Program Suppliers	36.00037	39.13977	96.00000
Joint Sports Claimants	37.62758	40.47418	0
NAB	13.77736	15.12731	0
PBS	5.49125	0	0
Music Claimants	4.00000	4.00000	4.00000
Canadian Claimants	1.90971	0.35151	0

Dated: January 20, 2004.

So Recommended.

Marybeth Peters,

Register of Copyrights.

So Ordered.

James H. Billington,

Librarian of Congress.

[FR Doc. 04–1567 Filed 1–23–04; 8:45 am]

BILLING CODE 1410–33–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 04–008]

NASA Advisory Council, Earth Systems Science and Applications Advisory Committee; Meeting

AGENCY: National Aeronautics and Space Administration (NASA).

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, Public Law 92–463, as amended, the National Aeronautics and Space Administration announces a meeting of the NASA Advisory Council (NAC), Earth Systems Science and Applications Advisory Committee (ESSAAC).

DATES: Wednesday, February 18, 2004, 8:30 a.m. to 5 p.m., and Thursday, February 19, 2004, 8:30 a.m. to 5 p.m.

ADDRESSES: Scripps Institution of Oceanography (SIO), 4500 Hubbs Hall, La Jolla, California 92093.

FOR FURTHER INFORMATION CONTACT: Mr. Gregory Williams, Code Y, National Aeronautics and Space Administration, Washington, DC 20546, 202/358–0241.

SUPPLEMENTARY INFORMATION: The agenda for the meeting is as follows:

- Welcome and Introductions
- Chairman's Remarks
- Earth Science Enterprise (ESE) Overview
- Technology Subcommittee Report
- What Makes a Modern Grid?
- Overview of NASA's Information Infrastructure

- ESE Data & Information Management Plan
- ESE FY03 Performance Discussion
- Progress on Other ESE Plans
- Committee Deliberations

It is imperative that the meeting be held on these dates to accommodate the scheduling priorities of key participants. Visitors will be requested to sign a visitor's register.

Michael F. O'Brien,

Assistant Administrator for External Relations, National Aeronautics and Space Administration.

[FR Doc. 04–1572 Filed 1–23–04; 8:45 am]

BILLING CODE 7510–01–P

NATIONAL SCIENCE FOUNDATION

Alan T. Waterman Award Committee; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation announces the following meeting:

Name: Alan T. Waterman Award Committee (1172).

Date and Time: Thursday, March 11, 2004, 8:30 a.m.–1:30 p.m., room 1235.

Place: Arlington, Virginia.

Type of Meeting: Closed.

FOR FURTHER INFORMATION CONTACT: Mrs. Susan E. Fannoney, Executive Secretary, Room 1220, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230. Telephone: (703) 292–8096.

Purpose of Meeting: To provide advice and recommendations in the selection of the Alan T. Waterman Award recipient.

Agenda: To review and evaluate nominations as part of the selection process for awards (NSF–00–123).

Reason for Closing: The nominations being reviewed include information of a personal nature where disclosure would constitute unwarranted invasions of personal privacy. These matters are exempt under 5 U.S.C. 552b(c)(6) of the Government in the Sunshine Act.

Dated: January 21, 2004.

Susanne Bolton,

Committee Management Officer.

[FR Doc. 04–1514 Filed 1–23–04; 8:45 am]

BILLING CODE 7555–01–M

NATIONAL SCIENCE FOUNDATION

Committee on Equal Opportunities in Science and Engineering; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation announces the following meeting:

Name: Committee on Equal Opportunities in Science and Engineering (1173).

Dates/Time: February 18, 2004, 9 AM–5:30 PM and February 19, 2004, 8:30 AM—1:30 PM.

Place: National Science Foundation, 4201 Wilson Boulevard, Room 1235S, Arlington, VA 22230.

Type of Meeting: Open.

FOR FURTHER INFORMATION CONTACT: Dr. Margaret E.M. Tolbert, Senior Advisor and Executive Liaison, CEOSE, Office of Intergrative Activities, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, Telephone: (703) 292–8040.

Minutes: May be obtained from the Executive Liaison at the above address.

Purpose of Meeting: To provide advice and recommendations concerning broadening participation in science and engineering.

Agenda

Wednesday, February 18, 2004

Briefing by the NSF Executive Liaison to CEOSE
Reports on NSF Advisory Committees by CEOSE Liaisons
Presentation and Discussion of the Crisis of African American Males
Discussion with One or More NSF Senior Executives
Presentation and Discussion on the Preparation Status of CEOSE Congressional Reports Required by H.R. 4664, SEC 20
Discussion of Plans for the CEOSE 2004 Biennial Report to Congress

Thursday, February 19, 2004

Reports of Ad Hoc Subcommittee Chairs
Discussion of Plans for the Offsite Meeting of CEOSE
Completion of Unfinished Business
Refinement of Recommendations and Action Items Resulting from the Meeting

Dated: January 21, 2004.

Susanne Bolton,

Committee Management Officer.

[FR Doc. 04–1515 Filed 1–23–04; 8:45 am]

BILLING CODE 7555–01–M

OVERSEAS PRIVATE INVESTMENT CORPORATION

January 29, 2004 Board of Directors Meeting

TIME AND DATE: Thursday, January 29, 2004, 1:30 p.m. (*Open* Portion), 1:45 p.m. (*Closed* Portion).

PLACE: Offices of the Corporation, Twelfth Floor Board Room, 1100 New York Avenue, NW., Washington, DC.

STATUS: Meeting *Open* to the Public from 1:30 p.m. to 1:45 p.m. *Closed* portion will commence at 1:45 p.m. (approx.)

MATTERS TO BE CONSIDERED:

1. President's Report
2. Approval of October 30, 2003 Minutes (Open Portion)
3. Approval of the January 6, 2004 Minutes (Open Portion)
4. Testimonial—George J. Kourpias

FURTHER MATTERS TO BE CONSIDERED: (Closed to the Public 1:45 p.m.)

1. Finance Project—Caribbean and Central America
2. Finance Project—Latin America
3. Finance Project—Latin America
4. Insurance Project—Gaza
5. Approval of October 30, 2003 Minutes (Closed Portion)
6. Approval of January 6, 2004 Minutes (Closed Portion)
7. Pending Major Projects
8. Reports

FOR FURTHER INFORMATION CONTACT: Information on the meeting may be obtained from Connie M. Downs at (202) 336–8438.

Dated: January 22, 2004.

Connie M. Downs,

Corporate Secretary, Overseas Private Investment Corporation.

[FR Doc. 04–1673 Filed 1–22–04; 1:13 pm]

BILLING CODE 3210–01–M

POSTAL SERVICE

Sunshine Act Meeting

TIMES AND DATES: 1 p.m., Monday, February 2, 2004; 8:30 a.m., Tuesday, February 3, 2004.

PLACE: Hollywood, Florida, at the Westin Diplomat Hotel, 3555 South Ocean Drive, in Atlantic Ballroom 1.

STATUS: February 2—1 p.m. (Closed); February 3—8:30 a.m. (Open)

MATTERS TO BE CONSIDERED:

Monday, February 2—1 p.m. (Closed)

1. Financial Update.
2. Negotiated Service Agreement (NSA).
3. Proposed Postal Rate Commission Filing for Small Publications.
4. Strategic Planning.
5. Personnel Matters and Compensation Issues.

Tuesday, February 3—8:30 a.m. (Open)

1. Minutes of the Previous Meeting, January 6, 2004.
2. Remarks of the Postmaster General and CEO.
3. Committee Reports and Appointment of Members of Board Committees.

Tuesday, February 3—8:30 a.m. (Open) [continued]

4. Capital Investments
   a. Optical Character Reader Enhancements for Letter Mail Automation.
   b. New York, New York, Church Street Station and Federal Office Building Phase III Development

Project.
c. Kansas City, Missouri, Main Post office and Mid-American District Office.
d. Santa Monica, California, Carrier Annex.
5. Quarterly Report on Service Performance.
6. Quarterly Report on Financial Performance.
7. Report on the Southeast Area and South Florida District.
8. Tentative Agenda for the March 1–2, 2004, meeting in Washington, DC.

FOR FURTHER INFORMATION CONTACT: William T. Johnstone, Secretary of the Board, U.S. Postal Service, 475 L'Enfant Plaza, SW., Washington, DC 20260–1000. Telephone (202) 268–4800.

William T. Johnstone,

Secretary.

[FR Doc. 04–1732 Filed 1–22–04; 2:37 pm]

BILLING CODE 7710–12–M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–49087; File No. SR–Amex–2002–116]

Self-Regulatory Organizations; Order Approving a Proposed Rule Change and Amendment Nos. 1, 2, 3, and 4, and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 5 to the Proposed Rule Change by the American Stock Exchange LLC Relating to Specialist Stabilization Requirements for Portfolio Depository Receipts, Index Fund Shares, and Trust Issued Receipts

January 15, 2004.

I. Introduction

On December 27, 2002, the American Stock Exchange LLC ("Amex" or "Exchange") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")[1] and Rule 19b–4 thereunder,[2] a proposed rule change to amend Amex Rules 170, 1000(a), and 1000A(a) to: (1) Eliminate certain specialist stabilization requirements and other technical requirements for Portfolio Depository Receipts, Index Fund Shares, and Trust Issued Receipts (collectively referred to as "Exchange Traded Funds" or "ETFs"), and (2) correct erroneous cross references in the Exchange's rules to the definition of the term "derivative product."

The Exchange filed Amendment Nos. 1, 2, 3, and 4 to the proposed rule change on April 23, 2003, June 3, 2003, October 3, 2003, and October 22, 2003, respectively.[3] The proposed rule change, as amended, was published in the **Federal Register** on November 25, 2003.[4] The Commission received no comments on the proposed rule change. On December 22, 2003, the Exchange submitted Amendment No. 5 to the proposed rule change.[5] This order approves the proposed rule change, as amended, publishes notice of Amendment No. 5 and grants accelerated approval to Amendment No. 5.

II. Discussion

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange.[6] Specifically, the Commission believes that the proposal is consistent with Section 6(b)(5) of the Act,[7] which requires, among other things, that the Exchange's procedures be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest.

The Exchange proposes to eliminate the current restriction on the ability of specialists to buy on plus ticks or sell on minus ticks without Floor Official approval for transactions in ETFs, along with other requirements. The Commission previously approved a similar proposal that eliminated these requirements of Amex Rule 170 for transactions in options traded on the Exchange.[8] The Commission notes that ETFs, similar to options, are priced derivatively, based on the value of an underlying basket of securities. Thus, the Commission believes that because ETFs are priced derivatively, an Exchange specialist would not be able to manipulate the pricing of an ETF. Accordingly, the Commission believes that it is appropriate to eliminate this restriction for Exchange Traded Funds. The Commission notes, however, that Exchange specialists must continue to engage in a course of dealings for their own account to assist in the maintenance of a fair and orderly market.[9]

The Exchange also proposes to eliminate Commentary .06 to Amex Rule 170 regarding short sales for ETFs to the extent that the Commission has granted no action relief or has otherwise exempted ETFs from the short sale rule.[10] In this regard, the Commission notes that Exchange rules regarding short sales would continue to apply to transactions in an ETF unless the Commission has granted "no action" relief or otherwise exempted such ETF from the short sale rule.

III. Accelerated Approval of Amendment No. 5

Pursuant to Section 19(b)(2) of the Act,[11] the Commission may not approve any proposed rule change, or amendment thereto, prior to the 30th day after the date of publication of notice of the filing thereof, unless the Commission finds good cause for so doing and publishes its reasons for so finding. The Commission hereby finds good cause for approving Amendment No. 5 to the proposal, prior to the 30th day after publishing notice of Amendment No. 5 in the **Federal Register**.

The Commission notes that Amendment No. 5 merely clarifies that

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* letters from William Floyd-Jones, Associate General Counsel, Amex, to Nancy Sanow, Assistant Director, Division of Market Regulation ("Division"), Commission, dated April 22, 2003 ("Amendment No. 1"), June 2, 2003 ("Amendment No. 2"), October 2, 2003 ("Amendment No. 3"), and October 21, 2003 ("Amendment No. 4").

[4] Securities Exchange Act Release No. 48800 (November 17, 2003), 68 FR 66144. ("Notice").

[5] *See* letter from William Floyd-Jones, Associate General Counsel, Amex, to Nancy Sanow, Assistant Director, Division, Commission, dated December 19, 2003 ("Amendment No. 5"). Amendment No. 5 clarifies in the proposed rule text that the proposal to eliminate the specialist stabilization requirements and other technical requirements under Amex Rule 170 would apply to only Exchange Traded Funds rather than all "derivative products."

[6] In approving this proposal, the Commission has considered its impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[7] 15 U.S.C. 78f(b)(5).

[8] *See* Securities Exchange Act Release No. 27235 (September 11, 1989), 54 FR 38580 (September 19, 1989). The Exchange adopted maximum quote spread rules applicable to registered options traders in 1975 and formally extended them to options specialists in 1989. *See Id.* In its proposal, the Exchange asserted that ETFs should not be subject to these maximum quote spread rules because the Exchange believes that none of the registered exchanges, ATSs, third market dealers, or Nasdaq that currently trade ETFs establish, or are subject to, maximum quote spread differentials. *See* Notice *supra* note 4. Further, the Exchange represents that there is no restriction on the trading of ETFs in multiple market centers and most ETFs are multiply traded. Telephone conversation between William Floyd Jones, Associate General Counsel, Amex, and Lisa N. Jones, Special Counsel, Division, Commission, dated November 10, 2003. As a result, the Commission does not believe that such a requirement is necessary at this time.

[9] *See* Amex Rule 170 and Rule 11b–1 under the Act, 17 CFR 240.11b–1.

[10] *See* Rule 101 under the Act, 17 CFR 240.10a–1.

[11] 15 U.S.C. 78s(b)(2).

the proposal to eliminate the specialist stabilization requirements and other technical requirements would apply to only Exchange Traded Funds rather than all "derivative products." The Commission believes that this technical modification more closely mirrors the intent of the proposed rule change. The Commission therefore finds that the approval of Amendment No. 5 on an accelerated basis is appropriate because this technical revision does not raise new regulatory issues.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning Amendment No. 5, including whether the proposed amendment is consistent with the Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549–0609. Comments may also be submitted electronically at the following e-mail address: *rule-comments@sec.gov.* All comment letters should refer to File No. SR–Amex–2002–116. This file number should be included on the subject line if e-mail is used. To help the Commission process and review comments more efficiently, comments should be sent in hardcopy or by e-mail but not by both methods. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying at the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the Exchange. All submissions should be submitted by February 17, 2004.

V. Conclusion

It is therefore ordered, pursuant to section 19(b)(2) of the Act,[12] that the proposed rule change (SR–AMEX–2002–116), as amended, is approved and Amendment No. 5 to the proposed rule change is hereby granted accelerated approval.

[12] 15 U.S.C. 78s(b)(2).

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[13]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 04–1506 Filed 1–23–04; 8:45 am]

BILLING CODE 8010–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–49097; File No. SR–CHX–2004–05]

Self-Regulatory Organizations; Notice Of Filing and Order Granting Accelerated Approval of Proposed Rule Change and Amendment No. 1 by the Chicago Stock Exchange, Inc. To Adopt an Anti-Money Laundering Compliance Program

January 16, 2004.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act" or "Exchange Act"),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on January 12, 2004, the Chicago Stock Exchange, Inc. ("CHX" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Exchange amended the proposal on January 15, 2004. The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons and to grant accelerated approval to the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to adopt CHX Rule 10 to Article VI of the CHX Rules to require Exchange members to develop and implement anti-money laundering compliance programs. The text of the proposed rule change follows. Additions are in *italics.*

* * * * *

Chicago Stock Exchange Rules

ARTICLE XXVIII

Article VI

Restrictions and Requirements

* * * * *

Anti-Money Laundering Compliance Program

RULE 10. Each member organization and each member not associated with a member organization shall develop and implement a written anti-money laundering program reasonably designed to achieve and monitor compliance with the requirements of the Bank Secrecy Act (31 U.S.C. 5311, et seq.) and the implementing regulations promulgated under that Act by the Department of the Treasury. Each member organization's anti-money laundering program must be approved, in writing, by a member of senior management.

The anti-money laundering program required by this Rule shall, at a minimum:

(a) Establish and implement policies and procedures that can be reasonably expected to detect and cause the reporting of transactions as required under 31 U.S.C. 5318(g) (and the regulations promulgated under that provision);

(b) Establish and implement policies, procedures and internal controls reasonably designed to achieve compliance with the Bank Secrecy Act (and the implementing regulations promulgated under that Act);

(c) Provide for independent testing for compliance to be conducted by member staff or by a qualified outside party;

(d) Designate, and identify to the Exchange (by name, title, mailing address, e-mail address, telephone number and facsimile number), an individual or individuals responsible for implementing and monitoring the day-to-day operations and internal controls of the program and provide prompt notification to the Exchange regarding any change in such designation; and

(e) Provide ongoing training for appropriate staff.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item III below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

[13] 17 CFR 200.30–2(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The proposed rule changes would amend the Exchange's rules to require Exchange members to develop and implement anti-money laundering compliance programs.

Section 352 of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 ("Patriot Act") requires broker-dealers to establish and implement anti-money laundering compliance programs that include, at a minimum: (a) internal policies, procedures and controls; (b) the specific designation of an anti-money laundering compliance officer; (c) ongoing employee training programs; and (d) an independent audit function to test the anti-money laundering program.[3] These requirements, which were incorporated into the Bank Secrecy Act, took effect in April 2002.[4]

Several exchanges have put rules in place that require their members to establish anti-money laundering compliance programs that are designed to comply with their Patriot Act obligations.[5] Through this filing, the Exchange proposes to put similar requirements in place. Specifically, the Exchange proposes to add new CHX Rule 10 to Article VI of CHX Rules to require each of its members to develop and implement a written anti-money laundering program reasonably designed to achieve and monitor compliance with the requirements of the Bank Secrecy Act and the implementing regulations under that Act. Each compliance program must be approved, in writing, by a member of senior management and must consist of five specific components.[6] The Exchange believes that its proposed rule is substantially similar to those proposed and implemented by the New York Stock Exchange, Inc., the National Association of Securities Dealers, Inc., as well as other markets.

2. Statutory Basis

The Exchange believes that the statutory basis for the proposed rule change is Section 6(b)(5) of the Act,[7] in that it is designed to promote just and equitable principles of trade, to remove impediments and to perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange believes that no burden will be placed on competition as a result of the proposed rule change.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

No written comments were solicited or received.

III. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change, and amended, is consistent with the Act. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549–0609. Comments may also be submitted electronically at the following e-mail address: *rule-comments@sec.gov*. All comment letters should refer to File No. SR–CHX–2004–05. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, comments should be sent in hardcopy or by e-mail but not by both methods. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying at the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the Exchange. All submissions should refer to File No. SR–CHX–2004–05 and should be submitted by February 17, 2004.

IV. Commission's Findings and Order Granting Accelerated Approval of Proposed Rule Change

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange. In particular, the Commission believes that the proposed rule change is consistent with Section 6(b)(5) of the Act,[8] which, among other things, requires that the Exchange's rules be designed to prevent fraudulent and manipulative acts and practices, and, in general, protect investors and the public interest.

The Commission believes that the Exchange's proposal to adopt an Anti-Money Laundering Compliance Program accurately, reasonably, and efficiently implements the requirements of the Patriot Act as it applies to its members. The Commission also recognizes that anti-money laundering compliance programs will evolve over time, and that improvements to these programs are inevitable as members find new ways to combat money laundering and to detect suspicious activities.

The Commission finds good cause for approving the proposed rule change, as amended, prior to the thirtieth day after the date of publication of notice of filing thereof in the **Federal Register**. The Commission notes that the Rule is substantially similar to anti-money laundering compliance program rules that the Commission has previously approved for other self-regulatory organizations.[9] Accordingly, the

[3] Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Pub. L. 107–56, 115 Stat. 272 (2001).

[4] 31 U.S.C. 5311, *et seq.*

[5] *See* Securities Exchange Act Release Nos. 45798 (April 22, 2002), 67 FR 20854 (April 26, 2002) (Order approving SR–NASD–2002–24 and SR–NYSE–2002–10); and 48622 (October 10, 2003), 68 FR 59828 (October 17, 2003) (Order approving SR–BSE–2003–18).

[6] A member firm's anti-money laundering compliance program must: (a) Incorporate policies and procedures that can be reasonably expected to detect and cause the reporting of transactions as required under the Bank Secrecy Act and related regulations; (b) incorporate policies, procedures and internal controls reasonably designed to achieve compliance with the Bank Secrecy Act and related regulations; (c) provide for independent testing to be conducted by the member's staff or by a qualified outside party; (d) designate (and identify to the Exchange by name, title, mailing address, e-mail address, telephone number and facsimile number) an individual or individuals responsible for implementing and monitoring the day-to-day operations and internal controls of the program and promptly notify the Exchange of any change in that designation; and (e) provide ongoing training for appropriate staff. The Exchange will give its members 90 days, after approval of this rule change by the Commission, to identify the individual(s) responsible for their compliance programs.

[7] 15 U.S.C. 78f(b)(5).

[8] 15 U.S.C. 78f(b)(5). In approving this rule, the Commission notes that it has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[9] *See* Securities Exchange Act Release Nos. 45798 (April 22, 2002), 67 FR 20854 (April 26, 2002) (Order approving SR–NASD–2002–24 and SR–NYSE–2002–10); 46041 (June 6, 2002), 67 FR 40366 (June 12, 2002) (Order approving SR–Phlx–2002–29); 46258 (July 25, 2002), 67 FR 49715 (July 31, 2002) (Order approving SR–Amex–2002–52); 446462 (September 5, 2002), 67 FR 58665 (September 17, 2002) (Notice of Filing and Order Granting Accelerated Approval of SR–CBOE–2002–

Commission believes that there is good cause, consistent with Section 19(b) of the Act,[10] to approve the proposed rule change, as amended, on an accelerated basis.

V. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[11] that the proposed rule change (SR–CHX–2004–05) is hereby approved on an accelerated basis.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[12]

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 04–1564 Filed 1–23–04; 8:45 am]

BILLING CODE 8010–01–P

SMALL BUSINESS ADMINISTRATION

[Declaration of Economic Injury Disaster #9Z06]

Commonwealth of Massachusetts (and Contiguous Counties in New Hampshire and Rhode Island)

Barnstable, Essex, Norfolk, Plymouth and Suffolk Counties and the contiguous counties of Bristol, Middlesex, and Worcester in the Commonwealth of Massachusetts; Hillsborough and Rockingham Counties in the State of New Hampshire; and Providence in the State of Rhode Island constitute an economic injury disaster loan area as a result of a nor'easter storm that occurred on December 6–7, 2003. Eligible small businesses and small agricultural cooperatives without credit available elsewhere may file applications for economic injury assistance as a result of this disaster until the close of business on October 18, 2004, at the address listed below or other locally announced locations: Small Business Administration, Disaster Area 1 Office, 360 Rainbow Blvd, South 3rd Floor, Niagara Falls, NY 14303.

The interest rate for eligible small businesses and small agricultural cooperatives is 3.061 percent.

The numbers assigned for economic injury for this disaster are 9Z0600 for Massachusetts; 9Z0700 for New Hampshire; and 9Z0800 for Rhode Island.

(Catalog of Federal Domestic Assistance Program No. 59002)

Dated: January 16, 2004.

Hector V. Barreto,

Administrator.

[FR Doc. 04–1503 Filed 1–23–04; 8:45 am]

BILLING CODE 8025–01–P

DEPARTMENT OF TRANSPORTATION

Maritime Administration

Voluntary Intermodal Sealift Agreement (VISA)/Joint Planning Advisory Group (JPAG)

AGENCY: Maritime Administration, DOT.

ACTION: Synopsis of January 8–9, 2004, meeting with VISA participants.

The VISA program requires that a notice of the time, place, and nature of each JPAG meeting be published in the **Federal Register**. The program also requires that a list of VISA participants be periodically published in the **Federal Register**. The full text of the VISA program, including these requirements, is published in 68 FR 8800–8808, dated February 25, 2003.

On January 8–9, 2004, the Maritime Administration (MARAD) and the U.S. Transportation Command (USTRANSCOM) co-hosted a meeting of the VISA JPAG at Ft. Eustis, Virginia.

Meeting attendance was by invitation only, due to the nature of the information discussed and the need for a government-issued security clearance. Of the 57 U.S.-flag carrier corporate participants enrolled in the VISA program at the time of the meeting, 21 companies participated in the meeting. In addition, representatives from the Maritime Administration (MARAD), the Department of Defense, and maritime labor attended the meeting.

LtGen Gary Hughey, opened the meeting with a welcome to all attendees. He was followed by MG Ann E. Dunwoody, who provided participants with an overview of the meeting. The JPAG meeting included updates on: (1) Intelligence; (2) deployment operations; (3) redeployment operations; and (4) CBR-D training.

As of January 1, 2004, the following commercial U.S.-flag vessel operators were enrolled in the VISA program with MARAD: AAA Shipping No. 1 L.L.C.; A Way to Move, Inc.; America Cargo Transport, Inc.; American Automar, Inc.; American International Car Carrier, Inc.; American President Lines, Ltd.; American Roll-On Roll-Off Carrier, LLC; American Ship Management, L.L.C.; Bay Towing Corporation; Beyel Brothers Inc.; Central Gulf Lines, Inc.; Coastal Transportation, Inc.; Columbia Coastal Transport, LLC; CRC Marine Services, Inc.; Crowley Liner Services, Inc.; Crowley Marine Services, Inc.; Delta Towing; E-Ships, Inc.; Farrell Lines Incorporated; First American Bulk Carrier Corp.; First Ocean Bulk Carrier—I, LLC; First Ocean Bulk Carrier—II, LLC; First Ocean Bulk Carrier—III, LLC; Foss Maritime Company; Horizon Lines, LLC; Laborde Marine Lifts, Inc.; Laborde Marine, L.L.C.; Liberty Shipping Group Limited Partnership; Lockwood Brothers, Inc.; Lykes Lines Limited, LLC; Lynden Incorporated; Maersk Line, Limited; Matson Navigation Company, Inc.; Maybank Navigation Company, LLC; McAllister Towing and Transportation Co., Inc.; Moby Marine Corporation; Odyssea Shipping Line LLC; OSG Car Carriers, Inc.; Patriot Shipping, L.L.C.; RR & VO L.L.C.; Resolve Towing & Salvage, Inc.; Samson Tug & Barge Company, Inc.; Sea Star Line, LLC; SeaTac Marine Services, LLC; Sealift Inc.; Signet Maritime Corporation; STEA Corporation; Strong Vessel Operators LLC (SVO), Superior Marine Services, Inc.; TECO Ocean Shipping; Totem Ocean Trailer Express, Inc.; Trailer Bridge, Inc.; TransAtlantic Lines LLC; Troika International, Ltd.; U.S. Ship Management, Inc.; Waterman Steamship Corporation; and Weeks Marine, Inc.

FOR FURTHER INFORMATION CONTACT: Mr. Taylor E. Jones II, Director, Office of Sealift Support, (202) 366–2323.

By Order of the Maritime Administrator.

Dated: January 20, 2004.

Joel C. Richard,

Secretary.

[FR Doc. 04–1504 Filed 1–23–04; 8:45 am]

BILLING CODE 4910–81–P

DEPARTMENT OF THE TREASURY

Open Meeting of the Financial Literacy and Education Commission

AGENCY: Departmental Offices, Treasury.

ACTION: Notice of open meeting.

SUMMARY: This notice announces the first meeting of the Financial Literacy and Education Commission, established by the Financial Literacy and Education Improvement Act (title V of the Fair and Accurate Credit Transactions Act of 2003).

DATES: The first meeting of the Financial Literacy and Education Commission will be held on Thursday, January 29, 2003, beginning at 10:30 a.m.

45); 46468 (September 6, 2002), 67 FR 58095 (September 13, 2002) (Notice of Filing and Immediate Effectiveness of SR–PCX–2002–44); 46739 (October 29, 2002), 67 FR 67432 (November 5, 2002) (Notice of Filing and Immediate Effectiveness of SR–NASD–2002–146); and 48622 (October 10, 2003), 68 FR 59828 (October 17, 2003) (Order approving SR–BSE–2003–18).

[10] 15 U.S.C. 78f(b)(5) and 78s(b).

[11] 15 U.S.C. 78s(b)(2).

[12] 17 CFR 200.30–3(a)(12).

ADDRESSES: The Financial Literacy and Education Commission meeting will be held in the Cash Room at the U.S. Department of the Treasury, located at 1500 Pennsylvania Avenue, NW., Washington, DC. To be admitted to the Treasury building, an attendee must provide his or her name, organization, phone number, date of birth, and Social Security number to Verlene Joseph, Office the Public Liaison, Department of the Treasury, by e-mail to *verlene.joseph@do.treas.gov* not later than 5 p.m. on Tuesday, January 27, 2003.

FOR FURTHER INFORMATION CONTACT: For additional information regarding admittance to the Treasury building, contact Verlene Joseph by e-mail to *verlene.joseph@do.treas.gov* or by telephone at (202) 622–1498 (not a toll-free number).

Additional information regarding the Financial Literacy and Education Commission and the Department of the Treasury's Office of Financial Education may be obtained through the Office of Financial Education's Web site at: *http://www.treas.gov/financialeducation.*

SUPPLEMENTARY INFORMATION: The Financial Literacy and Education Improvement Act, which is title V of the Fair and Accurate Credit Transactions Act of 2003 (the "FACT Act") (Pub. L. 108–159), established the Financial Literacy and Education Commission (the "Commission") to improve financial literacy and education of persons in the United States. The Commission is composed of the Secretary of the Treasury and the head of the Office of the Comptroller of the Currency; the Office of Thrift Supervision; the Federal Reserve; the Federal Deposit Insurance Corporation; the National Credit Union Administration; the Securities and Exchange Commission; the Departments of Education, Agriculture, Defense, Health and Human Services, Housing and Urban Development, Labor, and Veterans Affairs; the Federal Trade Commission; the General Services Administration; the Small Business Administration; the Social Security Administration; the Commodity Futures Trading Commission; and the Office of Personnel Management. The Commission is required to hold meetings that are open to the public every four months, with its first meeting occurring within 60 days of the enactment of the FACT Act. The FACT Act was enacted on December 4, 2003.

The first meeting of the Commission, all of which will be open to the public, will be held in the Cash Room at the Department of the Treasury, 1500 Pennsylvania Avenue, NW., Washington, DC. The room will accommodate 80 members of the public. Seating is available on a first-come basis. Participation in the discussion at the meeting will be limited to Commission members and their staffs.

Dated: January 20, 2004.

Wayne A. Abernathy,

Assistant Secretary of the Treasury.

[FR Doc. 04–1590 Filed 1–21–04; 3:47 pm]

BILLING CODE 4810–25–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[LR–189–80]

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, *Pub. L.* 104–13(44 U.S.C. 3506(c)(2)(A)). Currently, the IRS is soliciting comments concerning an existing final regulation, LR–189–80 (T.D. 7927), Amortization of Reforestation Expenditures (§§ 1.194–2 and 1.194–4).

DATES: Written comments should be received on or before March 26, 2004 to be assured of consideration.

ADDRESSES: Direct all written comments to Robert Coar, Internal Revenue Service, room 6411, 1111 Constitution Avenue NW., Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the regulation should be directed to Larnice Mack (202) 622–3179, or through the Internet (*Larnice.Mack@irs.gov*), Internal Revenue Service, room 6407, 1111 Constitution Avenue NW., Washington, DC 20224.

SUPPLEMENTARY INFORMATION:

Title: Amortization of Reforestation Expenditures.

OMB Number: 1545–0735.

Regulation Project Number: LR–189–80.

Abstract: Internal Revenue Code section 194 allows taxpayers to elect to amortize certain reforestation expenditures over a 7-year period if the expenditures meet certain requirements. The regulations implement this election provision and allow the IRS to determine if the election is proper and allowable.

Current Actions: There is no change to this existing regulation.

Type of Review: Extension of a currently approved collection.

Affected Public: Individuals or households, business or other for-profit organizations, and farms.

Estimated Number of Respondents: 12,000.

Estimated Time Per Respondent: 30 minutes.

Estimated Total Annual Burden Hours: 6,001.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 14, 2004.

Robert Coar,

IRS Reports Clearance Officer.

[FR Doc. 04–1581 Filed 1–23–04; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[REG–103330–97]

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)).

Currently, the IRS is soliciting comments concerning an existing final regulation, REG–103330–97 (TD 8839), IRS Adoption Taxpayer Identification Numbers (§ 301.6109–3).

DATES: Written comments should be received on or before March 26, 2004, to be assured of consideration.

ADDRESSES: Direct all written comments to Robert Coar, Internal Revenue Service, room 6411, 1111 Constitution Avenue, NW., Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the regulation should be directed to Larnice Mack (202) 622–3179, or through the Internet (*Larnice.Mack@irs.gov*), Internal Revenue Service, room 6407, 1111 Constitution Avenue, NW., Washington, DC 20224.

SUPPLEMENTARY INFORMATION:

Title: IRS Adoption Taxpayer Identification Numbers.

OMB Number: 1545–1564.

Regulation Project Number: REG–103330–97.

Abstract: The regulations provide rules for obtaining IRS adoption taxpayer identification numbers (ATINs), which are used to identify children placed for adoption. To obtain an ATIN, a prospective adoptive parent must file Form W–7A. The regulations assist prospective adoptive parents in claiming tax benefits with respect to these children.

Current Actions: There is no change to this existing regulation.

Type of Review: Extension of a currently approved collection.

The burden for the collection of information is reflected in the burden for For W–7A.

The following paragraph applies to all of the collections of 1information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 14, 2004.

Robert Coar,

IRS Reports Clearance Officer.

[FR Doc. 04–1582 Filed 1–23–04; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[FI–46–89]

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently, the IRS is soliciting comments concerning an existing final regulation, FI–46–89 (T.D. 8641), Treatment of Acquisition of Certain Financial Institutions; Certain Tax Consequences of Federal Financial Assistance to Financial Institutions (§§ 1.597–2 and 1.597–4, 1.597–6 and 1.597–7).

DATES: Written comments should be received on or before March 26, 2004, to be assured of consideration.

ADDRESSES: Direct all written comments to Robert Coar, Internal Revenue Service, room 6411, 1111 Constitution Avenue, NW., Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the regulation should be directed to Larnice Mack at (202) 622–3179, or *Larnice.Mack@irs.gov*, or Internal Revenue Service, room 6407, 1111 Constitution Avenue, NW., Washington, DC 20224.

SUPPLEMENTARY INFORMATION:

Title: Treatment of Acquisition of Certain Financial Institutions; Certain Tax Consequences of Federal Financial Assistance to Financial Institutions.

OMB Number: 1545–1300.

Regulation Project Number: FI–46–89.

Abstract: Recipients of Federal financial assistance (FFA) must maintain an account of FFA that is deferred from inclusion in gross income and subsequently recaptured. This information is used to determine the recipient's tax liability. Also, tax not subject to collection must be reported and information must be provided if certain elections are made.

Current Actions: There is no change to this existing regulation.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations, and the Federal government.

Estimated Number of Respondents: 500.

Estimated Time Per Respondent: 4 hours, 24 minutes.

Estimated Total Annual Burden Hours: 2,200.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and

tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 14, 2004.

Robert Coar,

IRS Reports Clearance Officer.

[FR Doc. 04–1583 Filed 1–23–04; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[FI–59–89]

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently, the IRS is soliciting comments concerning an existing final regulation, FI–59–89 (T.D. 8394), Proceeds of Bonds Used for Reimbursement (§ 1.150–2(e) (originally contained in § 1.104–18(c)).

DATES: Written comments should be received on or before March 26, 2004, to be assured of consideration.

ADDRESSES: Direct all written comments to Robert Coar, Internal Revenue Service, room 6411, 1111 Constitution Avenue, NW., Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the regulation should be directed to Larnice Mack at (202) 622–3179, or *Larnice.Mack@irs.gov*, or Internal Revenue Service, room 6407, 1111 Constitution Avenue, NW., Washington, DC 20224.

SUPPLEMENTARY INFORMATION:

Title: Proceeds of Bonds Used for Reimbursement.

OMB Number: 1545–1226. Regulation Project Number: FI–59–89.

Abstract: This regulation clarifies when the allocation of bond proceeds to reimburse expenditures previously made by an issuer of the bond is treated as an expenditure of the bond proceeds. The issuer must express a reasonable official intent, on or prior to the date of payment, to reimburse the expenditure in order to assure that the reimbursement is not a device to evade requirements imposed by the Internal Revenue Code with respect to tax exempt bonds.

Current Actions: There is no change to this existing regulation.

Type of Review: Extension of a currently approved collection.

Affected Public: State, local or tribal governments, and not-for-profit institutions.

Estimated Number of Respondents: 2,500.

Estimated Time Per Respondent: 2 hours, 24 minutes.

Estimated Total Annual Burden Hours: 6,000.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: January 14, 2004.

Robert Coar,

IRS Reports Clearance Officer.

[FR Doc. 04–1584 Filed 1–23–04; 8:45 am]

BILLING CODE 4830–01–P

Corrections

Federal Register
Vol. 69, No. 16
Monday, January 26, 2004

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001–NM–266–AD; Amendment 39–13388; AD 2003–25–05]

RIN 2120–AA64

Airworthiness Directives; Bombardier Model DHC–8–102, –103, –106, –201, –202, –301, –311, and –315 Airplanes

Correction

In rule document 03–31058 beginning on page 70428 in the issue of Thursday, December 18, 2003 make the following correction:

§39.13 [Corrected]

On page 70429, in §39.13, in the second column, under paragragh (a)(2), in the last line, "exceed 50 flight hours" should read, "exceed 500 flight hours ".

[FR Doc. C3–31058 Filed 1–23–04; 8:45 am]
BILLING CODE 1505–01–D

Federal Register

Monday,
January 26, 2004

Part II

Department of Transportation

Research and Special Programs Administration

49 CFR Parts 171, 172, et al.
Hazardous Materials Regulations; Compatibility With the Regulations of the International Atomic Energy Agency; Final Rule

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 174, 175, 176, 177 and 178

[Docket No. RSPA–99–6283 (HM–230)]

RIN 2137–AD40

Hazardous Materials Regulations; Compatibility With the Regulations of the International Atomic Energy Agency

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: In this final rule RSPA is amending requirements in the Hazardous Materials Regulations (HMR) pertaining to the transportation of radioactive materials based on changes contained in the International Atomic Energy Agency (IAEA) publication, entitled "IAEA Safety Standards Series: Regulations for the Safe Transport of Radioactive Material," 1996 Edition, No. TS–R–1. The purpose of this rulemaking initiative is to harmonize requirements of the HMR with international standards for radioactive materials as well as to promulgate other DOT-initiated requirements.

DATES: *Effective Date:* The effective date of these amendments is October 1, 2004.

Voluntary Compliance Date: RSPA is authorizing voluntary compliance with the amendments adopted in this final rule beginning February 25, 2004. However, RSPA may further revise this rule as a result of appeals it may receive for this rule.

Incorporation by Reference Date: The incorporation by reference of publications listed in this final rule has been approved by the Director of the Federal Register as of October 1, 2004.

FOR FURTHER INFORMATION CONTACT: Dr. Fred D. Ferate II, Office of Hazardous Materials Technology, (202) 366–4545, or Charles E. Betts, Office of Hazardous Materials Standards, (202) 366–8553; RSPA, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Contents

I. Background

In 1958, at the request of the Economic and Social Council of the United Nations, the IAEA undertook the development of international regulations for the safe transportation of radioactive materials. The initial regulations published by the IAEA in 1961 were recommended to member states as the basis for national regulations and for application to international transportation. Most nations have since adopted the IAEA regulations as a basis for regulations governing the transportation of radioactive materials.

In 1967, after extensive revisions, the IAEA published its regulations entitled "Regulations for the Safe Transport of Radioactive Material, Safety Series No. 6." In October 1968, DOT published amendments to the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) for radioactive materials which were in substantial conformance with the 1967 IAEA regulations (Docket HM–2, 33 FR 14918).

Based on work done by participants from member states, including the U.S., the IAEA issued two major updates of Safety Series No. 6 in 1973 and 1985. On March 10, 1983, the Research and Special Programs Administration (RSPA, we) published a final rule (Docket HM–169, 48 FR 10218), bringing the HMR requirements relating to the transportation of radioactive materials into alignment with the 1973 IAEA regulations. On September 28, 1995, we published a final rule (Docket HM–169A, 60 FR 50291) that revised the radioactive materials requirements in the HMR to align them with the 1985 revision of Safety Series No. 6. In each case, we coordinated the HMR revisions with the Nuclear Regulatory Commission (NRC), which concurrently revised 10 CFR part 71, and in each case these revisions made the United States radioactive material transport regulations compatible with those of most other industrialized nations.

In 1996, the IAEA revised and issued IAEA Safety Standards Series No. ST–1, ("ST–1"). IAEA subsequently revised ST–1 in June 2000 to include minor editorial changes and renamed it "TS–R–1." In this final rule, we use the nomenclature "TS–R–1" to refer to the 1996 IAEA "Regulations for the Safe Transport of Radioactive Material." Copies of TS–R–1 may be obtained from the U.S. distributor, Bernan Associates, 4611–F Assembly Drive, Lanham, MD 20706–4391, telephone (301) 459–7666.

As in past rulemakings to incorporate updates of the international regulations into the HMR, we are working in close cooperation with NRC in the development of this rulemaking. Currently, DOT and NRC jointly regulate the transportation of radioactive material in the United States in accordance with a July 2, 1979, Memorandum of Understanding (MOU; 44 FR 38690). In accordance with this MOU (a copy of which has been placed in the docket of this rulemaking):

1. DOT regulates both shippers and carriers and has issued:

- Packaging requirements;
- Communication requirements for:

—Shipping paper contents,
—Package labeling and marking requirements, and
—Vehicle placarding requirements;

- Training and emergency response requirements; and
- Highway routing requirements.

2. NRC requires its licensees to satisfy requirements to protect public health and safety and to assure the common defense and security, and:

- Certifies Type B and fissile material package designs and approves package quality assurance programs for its licensees;
- Provides technical support to DOT and works with DOT to ensure consistency with respect to the transportation of radioactive materials; and
- Conducts inspections of licensees in accordance with DOT requirements.

This rulemaking is being coordinated by RSPA with NRC to ensure that consistent regulatory standards are maintained for radioactive material transportation regulations, and to ensure coordinated publication of rules by both agencies. This final rule addresses only the areas over which DOT has jurisdiction as defined in the MOU. Comments received on non-DOT issues

or on DOT issues not in the scope of this rulemaking will not be addressed in this rule.

On December 28, 1999 (64 FR 72633), we published an advance notice of proposed rulemaking (ANPRM) requesting comments from interested persons concerning the extent to which differences between the HMR and the IAEA publication TS–R–1 should be considered in proposing changes to the HMR. We identified a partial list of TS–R–1 requirements being considered for incorporation in the HMR. We invited interested persons to review and comment on any or all of the requirements in TS–R–1 that differ from current HMR requirements and identify related issues we should address in the NPRM. In response to the ANPRM, we received approximately 80 written comments from trade associations, hazardous materials consulting firms, chemical manufacturers, radiopharmaceutical manufacturers, shippers and carriers of hazardous materials, and private citizens.

In addition, we compared TS–R–1 to the previous version of Safety Series No. 6 to identify changes made in TS–R–1, and then identified affected sections of the HMR. Based on this comparison and comments received from the ANPRM, we identified ten issues where increased compatibility between the HMR and TS–R–1 appears to be desirable.

On February 1, 2000, we published a final rule under Docket HM–215D (66 FR 8644), in which we adopted the International Maritime Dangerous Goods (IMDG) Code, 2000 edition, including Amendment 30–00 and the UN Recommendations on the Transport of Dangerous Goods, Eleventh Revised Edition (1999), both of which authorize the use of TS–R–1. We published a final rule on June 21, 2001 (66 FR 33315), which provided that TS–R–1 could be used, as an alternative to the HMR, for international shipments of radioactive materials. Additionally, we retained Safety Series No. 6 with the same restrictions.

This final rule will address the adoption of TS–R–1 (instead of Safety Series No. 6) requirements into the HMR for domestic use. On April 30, 2002, we published a notice of proposed rulemaking (NPRM) under Docket HM–230 (67 FR 21328). The major changes to the HMR proposed in the NPRM included the following:

(1) Adopt the nuclide-specific exemption activity concentrations and the nuclide-specific exemption consignment activities listed in TS–R–1 to assure continued consistency between domestic and international regulations for the basic definition of radioactive material;

(2) Adopt the new proper shipping names and UN identification numbers, except for those referring to Type C packages, to fissile low specific activity (LSA) materials or to fissile surface contaminated objects (SCO);

(3) Require, if customary units are to be used, that the appropriate quantity and customary units be placed within parentheses positioned after the original quantity expressed in the International System of Units (SI units);

(4) Incorporate the TS–R–1 changes for packagings containing more than 0.1 kg of UF_6;

(5) Authorize the use of the 1993 edition of International Organization for Standardization (ISO) 7195 as an alternative to American National Standards Institute (ANSI) N14.1, to require UF_6 packagings to meet the pressure, drop and thermal test requirements, to prohibit the use of pressure relief devices, and to certify the packagings in accordance with TS–R–1 requirements;

(6) Accept the IAEA transitional requirements and begin the phase-out of packages satisfying the 1967 IAEA requirements, including DOT specification packages; and

(7) Require that manufacture of all Type B specification packages conforming to Safety Series No. 6 (1967) be prohibited as of the date of implementation of this rule and that use of these packages be prohibited two years after implementation of this rule.

Those proposed changes were intended to harmonize requirements of the HMR with international standards for the transport of radioactive materials as well as to promulgate other DOT initiated requirements.

More than 150 commenters submitted over 200 comments in response to the NPRM, including representatives of Federal and state agencies, manufacturers, shippers, carriers, consultants, electric utilities, special interest groups, private citizens and trade associations.

II. Overview of Changes in This Final Rule

A. Summary of Amendments

In this final rule, we are amending the HMR to:

- Adopt the nuclide-specific exemption activity concentrations and the nuclide-specific exemption consignment activities listed in TS–R–1 to assure continued consistency between domestic and international regulations for the basic definition of radioactive material;
- Provide an exception in the HMR that certain naturally occurring radioactive materials would not be subject to the requirements of the HMR so long as their specific activities do not exceed 10 times the activity concentration exemption values;
- Incorporate the TS–R–1 changes in the A_1 and A_2 values into the HMR;
- Adopt the new proper shipping names and UN identification numbers, except for those referring to Type C packages, to fissile LSA material and to fissile SCOs;
- Require, if customary units are used, that the appropriate quantity and customary units be placed within parentheses positioned after the original quantity expressed in the International System of Units (SI units);
- Adopt the use of the Criticality Safety Index (CSI) to refer to what was formerly the criticality control transport index, and to restrict the use of the concept of transport index (TI) to a number derived purely from the maximum radiation level at one meter from the package;
- Require the new fissile label be placed on each fissile material package, and that the CSI for that package be noted on the fissile label;
- Adopt the requirement that excepted packages be marked with the UN identification number, that industrial packagings be marked with the package type, and that Type IP–2 and IP–3 industrial packages and Type A packages be marked with the international vehicle registration code of the country of origin of packaging design;
- Remove some former requirements which would become redundant upon adoption of the new proper shipping names, such as the requirement that the shipping description contain the words "Radioactive Material" unless those words are included in the proper shipping name;
- Remove plutonium-238 from the definition of fissile material. Remove the reference to Pu-238 in the list of fissile radionuclides for which the weight in grams or kilograms may be listed instead of or in addition to the activity, in the shipping paper or radioactive label description of the radioactive contents of a package;
- Adopt a definition of contamination, and include an authority to transport unpackaged LSA material and SCO, and an authority to use qualified tank containers, freight containers and metal intermediate bulk containers as industrial packagings, types 2 and 3 (IP–2 and IP–3);
- Adopt the new class of LSA–I material, consisting of radioactive

material in which the activity is distributed throughout and the estimated average specific activity does not exceed 30 times the activity concentration exemption level, and to remove the present category referring to mill tailings, contaminated earth, concrete, rubble, other debris, and activated material that is essentially uniformly distributed, with specific activity not exceeding 10^{-6} A_2/g.

- Incorporate the TS–R–1 changes for packagings containing more than 0.1 kg of uranium hexafluoride (UF_6);
- Require UF_6 packagings to meet the pressure, drop and thermal test requirements, to prohibit the use of pressure relief devices, and to certify the packagings in accordance with TS–R–1 requirements;
- Revise § 173.453 to reflect the NRC "fissile material exemption provisions," to remove the definition of "fissile material, controlled shipment," and to revise §§ 173.457 and 173.459 to remove the references to "fissile material, controlled shipment" and to base requirements for non-exclusive use and exclusive use shipments of fissile material packages on TS–R–1 package and conveyance CSI limits;
- Accept the IAEA transitional requirements and begin the phase out of packages satisfying the 1967 IAEA requirements, including DOT specification packages;
- Prohibit the manufacture of all Type B specification packages conforming to Safety Series No. 6 (1967) as of the effective date of this rule. The use of these packages would be allowed for three years after the effective date of this rule; and
- Add a requirement that the active material in an instrument or article intended to be transported in an excepted package be completely enclosed by the non-active components.

B. Issue Discussion

Issue 1: Nuclide-Specific Exemption Values

Background. In the April 30, 2002 NPRM, we proposed to adopt the nuclide-specific exemption activity concentrations and the nuclide-specific exemption consignment activities listed in TS–R–1. The objective of the proposal was to assure continued consistency between domestic and international regulations for the basic definition of Class 7 radioactive material, *i.e.*, of radioactive material which is deemed hazardous enough to be subject to the HMR.

The new exemption activity values would replace the previous activity concentration threshold of 70 becquerels per gram (2000 picocuries per gram)(70 Bq/g (2000 pCi/g)) that has long been used to decide whether a particular radioactive material is regulated by the HMR (*i.e.*, to decide whether it is "radioactive for the purposes of transport") the proposed exemption values include. This is in contrast to the previous use of a single threshold defined in terms of an activity concentration. In addition to nuclide-specific activity concentration thresholds proposed, nuclide-specific consignment activity thresholds such that consignments with activities below the latter thresholds would also not be considered "radioactive for the purposes of transport."

The considerations which led to the establishment of the exemption values, and the sources from which that information was obtained, are described in the NPRM. They included calculations carried out during the development of TS–R–1, involving 20 radionuclides, which represent radionuclides actually transported, to calculate the activity concentrations and the consignment activities that would not give an annual dose to transport workers of more than 0.01 millisievert (1.0 millirem), or 0.01 mSv (1.0 mrem) during a variety of transportation scenarios. This was done for each of the 20 radionuclides by determining for each of the approximately 24 scenarios (the number of scenarios varied somewhat, depending on the physical form of the radionuclide) the activity concentration and total activity that would yield an annual dose of 0.01 mSv (1.0 mrem), and then selecting the lowest of those activity concentrations and the lowest of those activities as the exemption values for that radionuclide. These activity concentrations and consignment activities were then compared with threshold activity concentrations and threshold activities that had previously been adopted for fixed facilities as a key element in the "International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources," Safety Series No. 115, International Atomic Energy Agency, Vienna, 1996.

The IAEA's Standing Advisory Group on the Safe Transport of Radioactive Materials (SAGSTRAM, made up of representatives of a subset of IAEA member countries) had previously agreed that exemption values for transport different from those for fixed facilities would be adopted only if they were different by more than two orders of magnitude, so that to the extent possible, entities dealing with radioactive materials would not have to deal with two different sets of exemption (threshold) values.

The IAEA working groups decided to adopt the exemption values previously adopted in Safety Series No. 115 for fixed facilities because the exemption values calculated for the 20 radionuclides using the transport scenarios did not differ by more than two orders of magnitude. This finding was true for all radionuclides (except Kr-85, a noble gas, for which it was argued that because Kr-85 is not transported in such large containers as used in the scenarios, the scenarios used were overly conservative). For those radionuclides in the transport regulations not listed in Safety Series No. 115, transport exemption values were calculated using the Safety Series No. 115 methodology.

Using the Safety Series No. 115 exemption activity concentrations and the same transport scenarios, those performing the study calculated the annual worker dose averaged over the 20 previously examined radionuclides to be about 0.23 mSv (23 mrem). This compares with an average annual worker dose of about 0.50 mSv (50 mrem) if the same 20 radionuclides had been transported with an activity concentration of 70 becquerels/gram using the same transport scenarios.

In this final rule we are incorporating in the HMR the TS–R–1 nuclide-specific exemption values to specify when radioactive material is regulated as Class 7. According to this new definition, a radioactive material offered for transport is regulated as a Class 7 hazardous material only if both the activity concentration and the consignment activity are greater than the exemption values determined for that material.

Discussion. One commenter noted that the nuclide-specific exemption values, which are more closely dose related than a strictly activity-based system, are more defensible.

To assist the regulated community in correctly performing these calculations and for consistency another commenter requested that RSPA provide example calculations of the use of the various mixture formulas within the NPRM. To resolve doubts on how to apply the formulas for a specific scenario, any person may obtain help through one of the mechanisms described in § 105.20.

One commenter felt that the proposed changes in the exemption activity concentrations, and particularly the proposed default exemption values, do not appear to represent risk- or performance-based approaches and could negatively impact the overall safety of DOE activities. We believe that the proposed changes in the exemption

activity concentrations do result in a risk-based approach since the dose equivalent received by a person is much more directly related to the risk than is the activity. Adherence to the criterion of limiting annual worker doses to 0.01 mSv (1.0 mrem) was balanced against the cost and safety implications of having to deal with two sets of exemption values, one for fixed facilities and another for transport. As a result of deciding to use the single set of exemption values derived for fixed facilities, the calculated dose and therefore the risk, was reduced by approximately a factor of two.

It is true that the exemption activity concentrations for most of the more commonly occurring alpha emitters have gone down from 70 Bq/g to 10 Bq/g or 1 Bq/g. In several of these cases, such as U(nat), Th(nat), or Ra-226, the number refers to the maximum activity concentration of the parent nuclide in the decay chain (assumed to be in secular equilibrium). Taking into account the activity concentrations of the progeny, the actual activity concentration thresholds for materials with these radionuclides will be higher.

With respect to the proposed default exemption values, paragraph 406.1 of IAEA Safety Guide TS–G–1.1 (ST–2), Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material, IAEA, Vienna, 2002, indicates that the default values are the lowest possible values within the alpha or beta/gamma subgroups. In the case of the default activity concentration threshold of 1×10^{-1} Bq/g for alpha emitters and for the case when no relevant data are available, the only nuclide in TS–R–1 Table I which has an exemption activity concentration this low is Ac-227. If any person has reason to believe through process knowledge or other means that Ac-227 is not present, or if an upper bound can be placed on the fraction of total activity concentration which may be due to Ac-227, the next lowest alpha emitter exemption activity concentration of 1×10^{0} Bq/g be used as the default value.

Several commenters recommended that we retain the threshold activity concentration of 70 Bq/g for domestic shipments. One of these commenters argued that the proposed change in the activity concentration exemption values would add significant delays and costs for Department of Energy waste site remediation efforts. The commenter cited past shipments of 98 railcars of soil from the DOE Savannah River Site that were shipped as non-radioactive for purposes of transport because the specific activity of the soil was less than 70 Bq/g, as determined by periodic gross alpha and gross beta measurements. The commenter stated that "under the proposed regulations, the gross measurements would not provide sufficient confidence in the classification and some isotopic analyses [which would then be required] would require significant time to complete. Performing similar removal actions under the proposed regulations will result in delays and costs for isotopic analysis/confirmation as well as additional costs associated with shipping the material as Class 7. This additional time and expense will be incurred with no significant change in the risk presented by such shipments made in compliance with the current regulations."

Just as gross alpha and beta measurements may not be sufficient with the new exemption values to determine whether the hazardous materials transport regulations apply, this has also been true in the past when determining whether the activity concentration was below 70 Bq/g. Gross counting measurements cannot yield the activity present until the isotopes and types of radiation, as well as the fractions of the counts caused by each isotope, are known. In cases where one or a few radionuclides are present, this information may be known through "process knowledge" or previous measurements, or both. If there are multiple isotopes present it is often not possible to determine this information without doing more lengthy and costly isotopic analyses.

In borderline cases, where some batches of a radioactive material have specific activities that exceed the exemption values and others do not, it may be simpler to determine whether any of the material exceeds the LSA–I limits. If not, the material could be treated conservatively and shipped as LSA–I. Although the material would now be transported under the HMR, the existing regulations for domestic shipments of LSA–I contain relatively modest communication and packaging requirements.

One commenter supported the proposal to adopt the radionuclide-specific exemption values. The commenter noted that of 2400 intermodal containers of decommissioning soil and debris shipped over a 38 month period, all would have had to be shipped as LSA rather than 10% of them, but that the additional cost would have been minimal.

One commenter objected to the nuclide-specific exemption activity concentrations because some of them are higher than the previous 70 Bq/g value. As pointed out in the NPRM, the hazards associated with radioactive materials are not directly related to their activity or activity concentration, but rather to the dose that a person in the vicinity or in contact with them would receive. The new system would, under the reasonable transport scenarios considered, raise the calculated dose due to some radionuclides from a small value to a somewhat larger, but still small value, while lowering the calculated dose from higher values for other radionuclides. For the 20 representative radionuclides for which detailed calculations were performed, the average calculated annual dose to workers transporting these materials at the proposed exemption activity concentration levels would be reduced from about 0.5 mSv (50 mrem) to about 0.23 mSv (23 mrem), *i.e.*, a reduction in dose of about 50%. Members of the public who were not actually involved in transporting these materials would presumably receive much lower doses, if any.

The commenter stated that although the proposed revision cuts the average modeled dose in half, the dose is still much too high. As pointed out above, the decision to use the Safety Series No. 115 exemption values instead of ones calculated specifically for transport, avoided the requirement to use two different sets of exemption values, one for fixed facilities (at least in the countries where these are used, for example most of the European countries) and one for transport. This in itself would likely lead to confusion and more errors, reducing safety.

We note that present NRC limits for occupational dose and dose to members of the public due to licensed activities are 50 mSv (5000 mrem) and 1.0 mSv (100 mrem), respectively. This is in addition to background radiation to which we are all exposed. The average background dose to a person living in the United States, according to information in NCRP Report No. 93, "Ionizing Radiation Exposure of the Population of the United States," published by the U. S. National Council on Radiation Protection and Measurements in 1987, is approximately 3.6 mSv (360 mrem), of which about 1.0 mSv (100 mrem) is due to cosmic, terrestrial, and internal sources of naturally occurring radiation; about 2.0 mSv (200 mrem) is due to radon; and the remaining 0.6 mSv (60 mrem) is due mostly to medical procedures, with a small contribution from consumer products and miscellaneous sources. Thus the average modeled dose of 0.23 mSv (23 mrem) for dose to workers due to transport of the 20 radionuclides

considered, although not negligible, is small compared to accepted limits and compared to background doses that we all receive. In addition, it is expected that doses from these transport activities to persons not involved in the transport will in almost all cases be much smaller.

A commenter suggested that doses from accidents have not been adequately analyzed. The fact that the average dose for the 20 radionuclides considered diminished by a factor of two indicates that on the average, the proposed exemption values should reduce doses due to accidents involving radioactive materials transported at the exemption levels and using the scenarios chosen.

This commenter noted that the proposed revision of exemption values would create an inconsistency with the present EPA practice of setting an upper limit of 70 Bq/g on the radioactivity content of waste that can be accepted at a Resource Conservation and Recovery Act (RCRA)-regulated waste disposal site. EPA has indicated that it has no national requirement of this type for RCRA Subtitle C facilities, but that such a requirement is frequently dictated by state regulations for the acceptance of mixed waste, or included in the site permit restrictions. The commenter is correct in implying that the proposed replacement of the 70 Bq/g threshold with the new exemption values, for the purpose of regulating the transport of radioactive materials, may result in some waste being sent to the RCRA site in a radioactive material placarded vehicle. However, where this limit is in use, it was obviously based on DOT's definition of radioactive material. If the intent of using this limit is to avoid having the site receive radioactive waste considered radioactive for purposes of transport, either the state regulations or the permit requirements would have to be changed to accommodate the new exemption values.

One commenter supports adoption of the new definition for Class 7 materials. However, the commenter states that the new definition will pose an unreasonable burden to those industries involved in environmental restoration, because classifying low activities in environmental media will be costly and burdensome without benefit. The commenter hopes that RSPA will weigh the effect of each proposed change in light of all affected and adopt domestic exceptions as warranted.

As we indicated above, in this final rule we are adopting the TS–R–1 exemption values to replace the 70 Bq/g criterion for determining when radioactive material will be regulated as a Class 7 hazardous material (with one exception: as discussed under Issue 2, we are also adopting in the HMR the TS–R–1 exception that the Class 7 thresholds will be 10 times the exemption values for ores and other natural materials not intended to be used for their radioactive properties).

With respect to this issue and to the others discussed below, we note that we have reviewed the present regulations, the proposed changes, and the various comments we have received, with the objective of achieving a balance between the competing tasks of ensuring safety and of avoiding imposing unjustified economic burdens on shippers and carriers of radioactive materials. In some cases we believe that domestic exceptions are justified, and have, for example, retained the U.S. practice of only requiring that vehicles carrying category Yellow III packages, highway route controlled quantities or exclusive use shipments of LSA/SCO be placarded, as well as the domestic A_2 value of 0.74 TBq (20 Ci) for Mo-99 and A_1 value of 0.1 TBq (2.7 Ci) for Cf-252.

Issue 2: Naturally Occurring Radioactive Materials

Background. The radioactive material transport regulations are intended to apply to natural materials or ores that form part of the nuclear fuel cycle, or that will be processed in order to utilize their radioactive properties. They do not apply to other natural materials or ores that may contain small amounts of naturally occurring radionuclides, when those materials or ores are to be used because of some other physical or chemical characteristics, provided that their activity concentration does not exceed 10 times the activity concentration in the table in § 173.436. The regulations also do not apply to natural materials and ores containing naturally occurring radionuclides when these have been subjected to physical or chemical processing, when the processing was not for the purpose of extracting radionuclides, again provided that their activity concentration does not exceed 10 times the activity concentration in the table in § 173.436. Examples of such materials are cement, coal, fertilizers, non-radioactive metals, gypsum, residues from mining and smelting processes, etc. In general these materials present a very low radiological hazard. On the other hand there are ores in nature where the activity concentration is much higher than the exemption values. The factor of 10 times the regulatory exemption activity concentration values was chosen as providing an appropriate balance between radiological protection concerns and the practical inconvenience of regulating large quantities of material with low activity concentrations of naturally occurring radionuclides.

In conjunction with the adoption of the nuclide-specific exemption values, in this final rule we are also incorporating in the HMR an exception for natural materials and ores containing radioactive material, in that natural materials and ores will be regulated as Class 7 hazardous material only if both their activity concentrations and consignment activities are greater than 10 times the corresponding exemption values.

Discussion. One commenter supports the higher threshold of 10 times the exemption values for natural materials and ores that contain naturally occurring radioactive material but are mined for their non-radioactive components or properties, and states that without an exemption for low levels of naturally occurring radioactive materials, application of the § 173.436 exemption values to these materials would result in unnecessarily regulating enormous amounts of material not currently regulated, and that regulating these materials would provide no benefit and increase their costs to the general public. However, this commenter also states that the intent of using these materials for their radioactive components should not be a determining factor in the risk analysis when they are transported in their natural state, and adds that for whatever purpose the materials are being transported, they pose the same negligible risk. The commenter states that it is only when the materials have been processed and the radioactive components are removed from their natural state that the radioactive components should be considered, and adds that the tailings from the removal of naturally occurring radioactive materials should be included in this group, as well as naturally occurring radioactive materials that accumulate from the extraction of non-radioactive minerals.

Another commenter suggests that DOT and NRC determine if the exemption below 10 times the activity concentration values in the table in § 173.436 would apply to mill tailings and residual radioactivity in soils and debris.

Another commenter indicated that the intended use of a material should not be a factor in how the material should be regulated, and that regulations for the transport of radioactive material should be based only on the radiological properties of the material being shipped.

Still another commenter urges RSPA to clarify in the preamble to the final rule that the "10 times" ("10×") exemption for "natural materials and ores" includes tailings, secondary materials and solid wastes resulting from non-nuclear processing of such ores. This commenter notes that the need for the shipper to determine the intended end-use of ores creates an artificial and difficult to enforce barrier to the transportation of useful materials, particularly since the eventual end-use is not always known at the time of shipment. In addition, the commenter is not aware of any other instance where DOT applies an "intent" based test when determining whether a material is hazardous.

One commenter recommends that the 10x exemption apply to the domestic transport of unimportant quantities of source material subject to the 10 CFR 40.13 (licensing) exemption provided that the material and ores not be processed for recovery of source material content.

Our intention is that use of the exemption between 1 and 10 times the activity concentration values in the table in § 173.436 be allowed for ores containing small amounts of activity when these ores are not intended to be used for their radioactive properties.

Although in most cases it will be obvious why a certain ore is being mined, we agree that there may be instances where the "intended use" test can be difficult to apply, and that it would be preferable to minimize this burden on the shipper and carrier. We also agree that the intended use of an ore containing low levels of naturally occurring radionuclides does not change the low degree of risk it would present in transport.

In determining if an ore or other material satisfies the 10× exemption criterion, one should avoid using an average activity concentration which masks volumes with much higher specific activities. We suggest that a reasonable criterion for applying the 10× exemption is to determine the "estimated average activity" of the ore or material as described in section 4.2.3 of NUREG–1608/RSPA Advisory Guidance 97–005 for "distributed throughout." For example, if the material can be divided into 10 or more equal volumes, each no greater than 0.1 m^3, and the specific activity differences between all pairs of volumes do not vary by more than a factor of 10, then one may average over the specific activities of all the volumes to obtain the estimated average activity, which may then be compared with 10 times the exemption activity concentration obtained from the table in § 173.436. If there are individual differences in the volume specific activities greater than a factor of 10, start with the volume with the maximum specific activity and average that specific activity with the next nine values in order of decreasing magnitude. If this average is no greater than 10 times the activity concentration from the table, the material qualifies for the 10× exemption.

Issue 3: Changes in A_1 and A_2 Values

Background. A_1 and A_2 values are used in the international and domestic transportation regulations to specify the amount of radioactive material that is permitted to be transported in a particular packaging, and for other purposes. A_1 and A_2 values for the most commonly transported radionuclides are listed in § 173.435 of the HMR, and in Appendix A to 10 CFR 71.

A_1 and A_2 values for most of the commonly transported radionuclides were provided in the 1973 IAEA Safety Series No. 6, and were based on certain dosimetric models and the assumption of certain exposure scenarios and pathways. These models and scenarios were extended and improved in the 1985 Safety Series No. 6, where the calculation procedure was called the "Q system." This resulted in changes in the A_1 and A_2 values listed there. More recent biokinetic data and dosimetric models have been used to update the Q system and the resulting A_1 and A_2 values in the 1996 TS–R–1. A description of the Q system as applied in deriving the values adopted in TS–R–1 may be found in Appendix I of the IAEA publication TS–G–1.1, "Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material," IAEA, Vienna, 2002.

Based on the results from the updated Q system, IAEA has adopted new A_1 and A_2 values for radionuclides listed in TS–R–1 (see paragraph 201 and Table 1 of TS–R–1). IAEA adopted these new values based on calculations that were performed using the latest dosimetric models recommended by the International Commission on Radiological Protection (ICRP) in Publication 60, "1990 Recommendations of the ICRP." A thorough review of the Q system also included incorporation of data from updated metabolic uptake studies. In addition, several refinements were introduced in the calculation of contributions to the effective dose from each of the pathways considered. The pathways themselves are the same ones considered in the 1985 version of the Q system (*i.e.*, external photon dose; external beta dose; inhalation dose; skin and ingestion dose from contamination; and dose from submersion in gaseous radionuclides). The impact of these analyses is that for each radionuclide a thorough up-to-date radiological assessment has been performed of potential exposures to an individual should a Type A transport package of radioactive material be involved in an accident during transport. The new A_1 and A_2 values reflect that assessment.

The revised dosimetric models are accepted internationally as more accurate ways of calculating the doses from individual nuclides, and this improvement in accuracy and the additional refinements in the pathways calculations result in various changes to the A_1 and A_2 values.

Discussion. Several commenters to the ANPRM requested retention of the present A_2 value of 20 Ci for domestic shipments of Mo-99, citing an increase in the needed number of shipments with consequent greater radiation exposure to workers and greater costs as probable consequences of eliminating the present 20 Ci domestic exception.

Two commenters to the ANPRM objected to the TS–R–1 reduction of the A_1 value for californium-252 (Cf-252) from its present value of 0.1 TBq (2.7 Ci) to 0.05 TBq (1.35 Ci), on the basis of very high costs for disposal of present Type A packages for transporting 0.1 TBq of special form Cf-252 and possible development of replacement Type B packages, or of greater radiation exposure to workers because of the need to double the number of shipments if smaller quantities had to be shipped to be able to continue to use existing Type A packagings. However, during analysis of comments to the ANPRM, RSPA and NRC staff members also learned that the IAEA is proposing, for the 2003 revision of TS–R–1, to change the A_1 and A_2 values in TS–R–1 for Cf-252 back to the values currently in the HMR.

Therefore, as proposed in the NPRM, we are adopting the revised A_1 and A_2 values, with two exceptions. We are retaining the A_2 value of 0.74 TBq (20 Ci) for domestic shipments of molybdenum-99 and the A_1 value of 0.1 TBq (2.7 Ci) and A_2 value of 0.001 TBq (0.027 Ci) for domestic shipments of californium-252. Transportation of these isotopes in accordance with international requirements would be subject to the TS–R–1 A_1 and A_2 values.

Some radionuclides for which A_1 and A_2 values are presently listed in § 173.435 and Appendix A of 10 CFR 71 do not appear in Table I of TS–R–1. These are Ar-42, Au-96, Es-253, Es-254, Es-254m, Es-255, Fm-255, Fm-257, Ho-163, Ir-193m, Nb-92m, Po-208, Po-209, Re-183, Te-118, and Tm-168. All except

the Einsteinium (Es) and Fermium (Fm) isotopes appear in Safety Series No. 6, 1985 Edition; the latter (Es and Fm) isotopes were appended to the tables in DOT's and NRC's domestic regulations when these incorporated the 1985 IAEA regulations. Through an oversight, numerical A_1 and A_2 values were never entered for Es-255. The above nuclides were not included in TS–R–1 Table I because of uncertainties in their decay schemes and/or the biological models used to determine doses from internal exposures (Dr. K. Eckerman, Oak Ridge National Laboratory). For this reason, we are removing them from § 173.435. To determine A_1 and A_2 values for these radionuclides we refer the shipper to § 173.433.

Discussion. Several commenters to the NPRM support the new A_1 and A_2 values.

One commenter noted that the proposed wording for § 173.433(b) did not accurately reflect the TS–R–1 requirements, in that the proposed text did not make it clear that the use of an A_2 value related to the solubility class of the radionuclide, when that A_2 value is not in the table, still requires the approval of the Associate Administrator for Hazardous Materials Safety and, for international shipments, multilateral approval. We agree, and have changed the text of § 173.433(b) to reflect this.

The same commenter noted that the word "Only" for alpha emitting nuclides in Tables 10A and 10B is unnecessarily restrictive, and should be removed (even though it appears in TS–R–1). We agree, and have removed it. This commenter also felt that reference to Tables 10A and 10B should be made in §§ 173.433(e) and 173.433(f) in the case that the identity of each nuclide is known, but not all of the individual activities are known. We disagree because when one applies the directions given in these two sections, any of the prescribed ways of determining the appropriate basic radionuclide values—from the tables in § 173.435 or § 173.436, from Tables 10A or 10B, or by approval of the AAHMS—is acceptable.

This commenter also asks whether the activity of progeny in radioactive decay chains should be included in the total activity required on shipping papers and Radioactive Yellow II and Yellow III labels. The answer is: The same reasoning that led to the inclusion of footnote (a) of the table in § 173.435 of the NPRM should govern the activities to be included on shipping papers and labels. When A_1 or A_2 values include contributions from daughter nuclides with half lives less than 10 days, and no daughter has a half life greater than that of the parent, as referenced in footnote (a) to the table in § 173.435, the parent and those daughters are to be treated as a single radionuclide both for the purpose of using the table to determine the appropriate packaging type, and for the contribution of that chain to the "total activity" required by § 172.203(d) to be included on the shipping paper and by § 172.403(g) to be included on the Radioactive Yellow II and Yellow III labels. The reason is that the A_1 and A_2 values assigned to the parents of those chains have been adjusted to appropriately represent the hazard of all the nuclides in that chain. This will occasionally lead to a situation where the true activity contents of the package can be somewhat greater than the "total" activity listed on the shipping paper and labels. However, the hazard of that decay chain will have been correctly taken into account for the selection of packaging type. The above considerations also imply that in applying the rules for determining which radionuclides should be listed on the shipping paper or labels, the stated daughters in these short half life chains need not be listed, or included in the application of the 95% formula in § 173.433(f).

This commenter also noted that footnote (a) appears in both tables in the NPRM, in §§ 173.435 and 173.436, even though it only refers to A_1 and A_2 values. This was an error, and we have removed that footnote from the table of exemption values in § 173.436, and reordered the remaining footnotes for that table. This commenter also requested the inclusion of an MFP (multiple fission products) entry and an entry for uranium enriched to more than 20% in the A_1/A_2 table in § 173.435. Multiple fission products should be dealt with by the methods described in § 173.433. A request for approval of A_1/A_2 values for nuclides not in the table should be addressed to the Associate Administrator, as indicated in § 173.433, with appropriate justification. In general, it is expected that this determination will be made following the guidelines of the Q system, as described in Appendix I to TS–G–1.1.

Issue 4: Communication Changes

Background. In this final rule we are adopting several changes in the regulations governing hazard communication associated with the transport of Class 7 (radioactive) materials, as well as revising and adding to the definitions in subpart I of 49 CFR 173.

Revisions in hazard communication include the following:

1. We are eliminating entries in the Hazardous Materials Table at § 172.101 presently accompanied by the symbol "D" in column (1) of the Table, and removal of the "I" in column (1) for the remaining Class 7 (radioactive) materials entries.

The "D" symbols, as well as the new proper shipping names and UN identification numbers from TS–R–1 accompanied by the "I" symbols, were introduced for radioactive material entries in the Hazardous Materials Table in the Final Rule for docket HM–215D (66 FR 33316; June 21, 2001). This was done to permit import and export shipments of radioactive materials in accordance with the new international air and sea modal requirements, and to allow shippers to reuse domestically previous imported packagings marked with the new proper shipping names and UN numbers.

As a result of the above action, as of the effective date of this final rule, we will only allow the use of proper shipping names and UN identification numbers established in TS–R–1 and in the international modal regulations. Since we are not adopting domestic use of Type C packages (see Issue 7), we are not incorporating in the HMR proper shipping names and UN identification numbers found in TS–R–1 for Type C packages, or for fissile LSA or SCO materials. In addition, we are not allowing fissile material (above the level considered fissile-excepted) to be transported domestically as LSA material or SCO.

2. We are adopting a requirement to mark UN identification numbers on excepted packages, and to mark package type, international vehicle registration code (the letters USA in the case of the U.S.) on all industrial and Type A packages, and mark the packaging manufacturer on Type A packages.

3. We are specifying that customary activity units (curies, or fractions thereof), if used in shipping paper descriptions or on radioactive labels, must be enclosed in parentheses following the required SI units.

4. We are introducing a criticality safety index (CSI) to express the former criticality control transport index (criticality TI) for fissile material, and the restriction of the term transport index (TI) to the former radiation TI, derived exclusively from the maximum radiation dose rate at one meter from the package. We are also introducing a fissile label for a package of fissile material, on which the CSI for that package must be displayed.

The fissile label will make it obvious that the package is carrying fissile material, and the use of the fissile label in conjunction with the designation of the CSI will reduce the complexity of

the system presently in use. These changes will also simplify decisions as to how many packages can be grouped together, since under the new system the description of radiation and criticality hazards is uncoupled, and during transport each hazard can be considered separately.

5. We are introducing a requirement to mark industrial packagings with the markings TYPE IP–1, TYPE IP–2 or TYPE IP–3.

6. We are removing some former requirements that have become redundant upon adoption of the new proper shipping names, such as the requirement that the shipping description contain the words "Radioactive Material" unless those words are included in the proper shipping name.

7. In accordance with the corresponding change in TS–R–1 (see the discussion for Issue 8), we have removed the isotope plutonium-238 from our definition of fissile material in § 173.403, as well as the reference to it in the list of fissile radionuclides for which the weight in grams or kilograms may be listed instead of or in addition to the activity, in the shipping paper or radioactive label description of the radioactive contents of a package.

8. To improve readability and clarity of the HMR we have moved the labeling requirements for overpacks from § 173.448 to subpart E of part 172.

Discussion. Three commenters did not support the requirement to mark excepted packages and "empty" packages with the UN number preceded by the letters "UN," stating this change will not assist first responders in communicating a package's hazard and will more likely than not simply confuse such personnel. The commenters added they were not aware of any situation where a responder was needlessly or excessively exposed to a hazard because, despite its limited quantity, its radioactive nature was not communicated. The commenters did not think that the extra effort to mark Limited Quantity and Empty packages will result in enhanced safety since the quantity of material in these packages has already been determined to be low-risk, and the extra effort to mark these packages is not rewarded with increased safety. We agree that the risk associated with the transport of excepted packages is small; however, in addition to the small benefit for emergency response involving these packages, the benefits of following the same practice for domestic and international regulations in this regard are sufficient to warrant harmonization with TS–R–1.

Two commenters stated that the proposal to modify § 178.350(b) by removing the wording "and Radioactive Material" from the marking requirement is commendable since this wording is already included in the proper shipping name that is also provided as a marking on the package.

One commenter referenced the proposed § 173.427(a)(6)(vi) and stated the existing § 173.427(a)(6)(vi) requires only the stenciling of non-bulk packages with the words "Radioactive-LSA" or "Radioactive-SCO" and "RQ" as appropriate. Typically only non-bulk packages are marked for reportable quantities as per § 172.324. The proposed paragraph no longer states that only non-bulk packages must be stenciled. The commenter recommended ensuring that the intention was to stencil both bulk and non-bulk packages with the words "Radioactive-LSA" or "Radioactive-SCO" and "RQ" as appropriate. We intend that the "Radioactive-LSA" or "Radioactive-SCO", and "RQ" markings when appropriate, be placed on all Class 7 (radioactive) material packages containing LSA material or SCO, independent of their weight or capacity.

One commenter addressed concerns regarding the proposed change to § 173.424 and the burden that will be imposed upon manufacturers, importers and distributors of consumer products, such as lamps that contain small quantities of radioactive material, if it is adopted as contained in the above referenced docket. The proposed change would modify § 173.424(e) to require the marking "radioactive" on each instrument or article shipped in an excepted package, except for radio-luminescent timepieces. The commenter stated that as is the case with radioactive luminescent timepieces, lighting products, such as lamps, glow-switches or glow bottles that contain small quantities of radioactive material necessary for their operation, are manufactured or imported under either an NRC or Agreement State radioactive materials possession license and distributed (sold) to the general public under an NRC exempt distribution "E" license.

In order for a product to be licensed for exempt distribution, the manufacturer, importer or distributor must satisfy the NRC that it has been manufactured and prototype-tested according to specified standards and that the product meets specified radiation limits, where applicable. In addition, the manufacturer must develop routine quality control testing and production lot sampling procedures to the satisfaction of the agency. According to NRC regulations, a product licensed for exempt distribution may be used and in most cases disposed of by the consumer without regard to its radioactive content. The commenter cited certain other consumer products that will also be affected by this rule change, such as high intensity discharge (HID) lamps and other products which contain thorium.

The commenter argued that to require an NRC-exempt lighting product to be marked as radioactive would be burdensome because "E" licensed lighting products have already been evaluated and licensed for distribution with any marking approved by the NRC. He stated that, in most instances the individual item package, rather than the item itself, is marked with information about the radioactive content; that the new requirement of § 173.424(e) would either supersede or be in addition to the NRC approved product marking; and that the new marking requirement of § 173.424(e) would impose product marking on a large and decade old segment of HID market even though the NRC has found such labeling to be unnecessary. The proposed change to § 173.424(e) would require the product itself to be marked, regardless of size or design, which in some cases could make a readable "radioactive" marking virtually impossible, (*e.g.*, glow switches are sealed glass tubes that measure approximately 20mm long by 9mm in diameter). Individual product marking would entail modifications to production line equipment and possibly even the redesign of certain equipment to accommodate the marking of small components. Marking a lighting product as radioactive would send a mixed message to the consumer, as would be the same marking of a radioactive luminescent timepiece. The NRC has determined that such a product is safe to use without regard to its contained radioactivity and yet § 173.424(e), if enacted as currently written, would require the product to be marked, in the manner of a warning, that it is "radioactive"—a marking the NRC has not deemed necessary.

The commenter also argued that both fluorescent and HID lamps are typically three to four times more energy efficient than incandescent lamps. The Environmental Protection Agency and the Department of Energy actively promote the conversion to more energy efficient lighting, which reduces the amount of coal, oil and gas burned in power plants, as well as the amount of air pollutants including greenhouse gasses released from power plants. A requirement to label these products as radioactive is likely to discourage the

use of these environmentally preferable products. The commenter proposed to change the wording of the instrument or article marking exception to: "* * * (except any device either distributed under a NRC Exempt Distribution License, pursuant to 10 CFR 32.14 or exempt from NRC regulation pursuant to 10 CFR 40.13) * * *"

We agree that in some cases the physical size of the instrument or article that qualifies to be shipped in an excepted package may make it difficult to comply with the requirement to mark "RADIOACTIVE" on such instrument or article. We also agree that the degree of additional safety that this measure would provide is small, while the costs to manufacturers, particularly in the case of items of such small size that they do not easily accommodate the marking, may be unreasonably large, without a commensurate increase in safety. Therefore we are not adopting this proposal. We note, however, that excepted packages of instruments and articles containing small quantities of radioactive material must still have the "RADIOACTIVE" marking if they are to be transported under the IAEA Regulations in TS–R–1, the ICAO Technical Instructions, or the IMDG Code.

A commenter opposed the proposed revision of the requirements pertaining to the labeling of overpacks in § 172.403. Section 172.403(h)(4) in the NPRM, as did its predecessor § 173.448(g)(iv), allows the transport index (TI) of a rigid overpack to be determined by adding the individual indices of the packages inside or by direct measurement of the radiation level at one meter from the outside surface. However, § 172.403(h)(5) in the NPRM states that the label category for an overpack is to be determined by the TI, as determined according to § 172.403(h)(4), and the highest surface radiation level on an individual package inside the overpack, "unless the overpack has been demonstrated to satisfy the packaging requirements for the package type appropriate for the totality of its contents."

The commenter stated that while the purpose of this change is described by RSPA as a clarification, this will lead to confusion. The proposed requirements could lead to a situation where an overpack may require a Yellow-III category label (because of using the highest surface dose rate on an interior package) yet the measured TI to be entered on the label for the overpack (*e.g.* less than 1.0) could correspond to a Yellow-II or White-I label. Thus this proposed change could result in the need to use a Yellow III label on the overpack when a Yellow II label would be sufficient under present requirements, thereby subjecting the carrier to placarding requirements and additional carrier requirements.

According to the commenter this would place a hardship on shippers who would now have to use placarded vehicles and carriers with Commercial Driver's Licenses (CDLs), yet the Type A packages inside would not be better protected or safer in any way. Any Type A package inside an overpack would still be expected to meet the design and performance requirements on its own, regardless of the type of overpack used. Therefore, if the shipper chooses not to or cannot use the sturdier overpack, which would allow him to use the dose rate on the surface of the overpack to determine the overpack category, more packages, with potentially higher radiation levels than that of the overpack, would then be handled by the shipper, carrier and recipient, resulting in additional radiation exposure to shippers, carriers and recipients of these packages. The commenter stated that this proposal should be abandoned.

Another commenter representing a large maritime construction firm stated that its primary concern is regulations related to transportation of Class 7 (radioactive) materials associated with industrial radiography. Radioactive isotopes, primarily iridium-192 and cobalt-60, are used for soundness inspection of welds and critical components in the submarine construction industry. The proposed requirement, to determine the category of Class 7 label on the overpack based in part on the maximum radiation level on the interior package or packages, would seriously impact his firm and many other industry users that normally transport radioactive materials in order to conduct inspections required by government specifications. Users and small businesses would be adversely impacted through costs associated with compliance with the proposed rules, since in many cases both the overpack and the interior package or packages would now be labeled Yellow-III, and whether or not the overpack is used, the vehicle would require a placard. Since DOT regulations require the driver of any vehicle requiring a placard to possess a CDL and to be a "Registered Shipper of Hazardous Materials," this would entail additional costs for the businesses involved, with no additional benefit, or even increased radiation exposure if the company decided not to use the overpack. The commenter stated that the proposed requirement would increase the radiation exposure received by workers incident to the transportation of radioactive materials required for industrial radiography as well as other industries, such as those using moisture density gauges, well logging equipment, alloy identification equipment, and other radioactive devices, since if the labels on the packages and also on the overpack are determined by this proposed requirement to be Radioactive Yellow-III, transporters would now have less incentive to use an overpack. The proposed requirements would reduce the use of overpacks and packages would be transported at radiation levels closer to the maximum limits allowed.

Another commenter expressed concern that radiographers and some density gauge users, who under present regulations can use an overpack to reduce the category of label and therefore avoid having to placard their vehicle, would under the proposed change for determining the category of an overpack be forced to placard their trucks, and that the radiographer and gauge users and the general public could be at risk from terrorist or thieves who would be keenly aware of the presence of radioactive devices that have been invisible to them in the past by stalking the hundredfold increase in radioactive placarded vehicles on the roads. He added that even without the events of 9/11, there have been many gauge thefts out of the back of vehicles, and that placing a placard on the back of a vehicle may appear to increase the safety of the public, but it could increase the risk to the radiographers, gauge users and the public since the devices are relatively easy to steal.

We have reviewed the consequences of the wording proposed for § 172.403(h)(5) in the NPRM, and we agree with the above commenters. The requirement to use a sturdier overpack, which could often imply the need for a Type B packaging, in order to be able to use the overpack surface dose rate to determine its category for labeling purposes, is unreasonably restrictive and in many cases impossible to realize. Therefore, we are removing that restriction in § 172.403(h)(5), and simply requiring that, by the procedure described in § 172.403(b) for packages, the category of the overpack be determined using the maximum dose rate on the surface of the overpack, and the TI for the overpack determined by one of the methods prescribed in § 172.403(h)(3) for a non-rigid overpack, or in § 172.403(h)(4) for a rigid overpack.

One commenter agreed with the proposal in § 178.350(b) to remove the wording "Radioactive Material" from the marking requirement on a DOT

Specification 7A Type A package, as this wording is already included in the proper shipping name that must also be marked on the package. This commenter also agreed with the proposal to retain the ability in §§ 172.203(d) and 172.403(g) to use the customary units of activity as long as they are placed within parentheses after the original quantity in SI units. According to this commenter this will facilitate the ongoing understanding of carriers, end users and potential emergency responders who are accustomed to seeing the customary units to describe the contents of radioactive materials packages.

Two commenters stated that customary units should be required if the SI system is used. One commenter stated that customary units should be required and the SI units be optional, but put in parenthesis, if used. Three commenters supported the proposed changes for §§ 172.203(d) and 172.403(g) that would allow continued use of customary activity units as long as they are placed within parentheses after the original quantity in SI units. As noted elsewhere, we are requiring that customary units, if used, be placed after the required SI units, and be enclosed in parentheses. The present regulations allow the shipper to use customary units after the required SI units. In this final rule, we are adding the requirement that these be enclosed in parentheses.

A commenter stated that some place in the proposed regulations the format of the criticality safety index should be specified for appropriate guidance to both shippers and carriers. The following modification was suggested: The CSI for packages containing fissile material is determined in accordance with the instructions provided in 10 CFR 71.22, 71.23 and 71.59, and is a number rounded up to the nearest tenth. It is recognized that the above information is provided in 10 CFR, but the added phrase specifying the numerical format should be included in DOT's regulations. We agree, and have inserted that clarification in our definition of CSI in § 173.403.

One commenter noted that in § 175.702(b)(2), which deals with the requirements for carriage of packages containing Class 7 (radioactive materials) in a non-exclusive use cargo aircraft only, when the total transport index for all the packages is greater than 50.0 but does not exceed 200.0, and the criticality safety index for all of the packages does not exceed 50.0, the proposed section remains incompatible with IAEA TS–R–1, and in fact it is also incompatible with IAEA Safety Series No. 6, (1985 Edition as Amended 1990). The proposal in the NPRM is that the radioactive material packages be in groups not exceeding 50.0 TI and that each group of 50 TI or less is separated from all other groups of 50 TI or less by at least 6 meters and from humans by at least 9 meters.

The commenter noted that the IAEA TS–R–1 Table IX provides for 200 TI on a cargo aircraft. Paragraph 562 of TS–R–1 states that segregation between the radioactive materials and human occupied space shall be governed by paragraph 306, which prescribes annual dose limits for the purpose of calculating segregation distances. Table 7–6 in the 2001–2002 edition of the ICAO Technical Instructions is calculated on such a basis for TI's between 50.0 and 200.0. He stated that the fifty TI grouping should be abolished and the ICAO segregation table should be adopted. Grouping of packages into 50.0 TI or less involves additional handling and therefore represents a dosage increase. The 50.0 to 200.0 TI segregation table has been in ICAO and IATA for many years, ever since the adoption of IAEA Safety Series No. 6 (1985 Edition as Amended 1990), and it is unlikely that most foreign air carriers entering U.S. airspace are adhering to or are aware of the § 175.702(b)(2) operational requirement. This comment is not within the scope of this rulemaking.

The only substantive changes introduced in § 175.702 in the NPRM were the inclusion of reference to a FISSILE label in § 175.702(b), a restriction to a total CSI of 50 in § 175.702(b), and the introduction of an upper limit of 200 TI for cargo aircraft only. The remaining changes were the rearrangement and renumbering of the previous requirements.

Because we did not propose to adopt the segregation scheme of the ICAO Technical Instructions in our NPRM, we are unable to introduce these changes in this final rule. Consideration of the discrepancy between § 175.702 and the ICAO regulations may be considered in a future rulemaking.

A commenter stated packages should be labeled "Danger—Radioactive Material" rather than "fissile." Another commenter stated that the CSI should be included in the shipping description for fissile material packages and that the fissile label is inadequate and should have more information because 99.9% of the population doesn't know what that means. The commenter suggested adding the radiation symbol and the words "Very Dangerous, Radioactive. Keep far away from public and animals. Guard at all times." A commenter stated that it is not evident that there is a benefit in substituting the CSI for the TI and that, to minimize damages, the maximum amount of information should be given. The same commenter stated that all packages should be labeled Dangerous—Radioactive Material and a radiation warning symbol should be attached to every package. Another commenter supported the proposal to use the new "Fissile" label and the Criticality Safety Index (CSI), stating that the use of the CSI value will remove a source of confusion in the old TI values and the resulting enhancement of the safety of shipments makes the extra efforts necessary to implement this proposal worthwhile.

We agree that it is important that communications be as clear as possible, that their impact correspond to the hazard, and at the same time that the shipper, carrier or first responder not be so overwhelmed by information that the probability of errors is increased rather than diminished. For this reason we feel that the uncoupling of the concepts of TI, which refers to the external radiation hazard, and CSI, which refers to the criticality hazard, is an important improvement over the historical TI, which could have resulted from either of these hazards.

Because the two hazards are quite different, the use of one of various phrases involving the words "radioactive material" on a fissile material package without a Fissile label would actually convey less information than the presence of the Fissile label on the package. In addition, it should be noted that all radioactive material packages, aside from excepted packages and certain LSA and SCO shipments (for which the markings "RADIOACTIVE–LSA" or "RADIOACTIVE–SCO" are substituted), are required to have the proper shipping name marked on the package, and with the adoption of the TS–R–1 proper shipping names, all radioactive material proper shipping names start with the words "Radioactive material."

A commenter questioned why Type C packages and fissile LSA and SCO are exempt from proper shipping names and UN ID numbers. We have not adopted proper shipping names and UN identification numbers for Type C packages, or for fissile LSA material and SCO, because we have decided not to recognize these categories in HMR.

A commenter stated that plutonium weight should not replace the activity but may be added to it in the shipping documents and package labels. We note that this is in fact what appears in the proposed language for §§ 172.203(d)(3) and 172.403(g)(2), and has been the case

previously. The change in these two paragraphs was the removal of reference to plutonium-238 as a fissile nuclide.

Issue 5: Low Specific Activity (LSA) materials and Surface Contaminated Objects (SCO)

Background. On September 28, 1995, in a final rule published under Docket HM–169A (60 FR 50292), we refined the existing Low Specific Activity (LSA) and Surface Contaminated Object (SCO) regulations by adopting complementary, but not additional, features of the LSA and SCO provisions of the IAEA regulations. This approach was considered best because it offered minimal changes to existing requirements while facilitating international transport consistent with IAEA regulations. Shortly after implementing this new regulatory program, we recognized the shortcomings of not adopting the Safety Series No. 6 definition of contamination. We are now bringing the HMR into closer harmony with TS–R–1 by adopting the IAEA definition of contamination.

In accordance with TS–R–1, we have included the phrase "and other ores containing radioactive materials intended to be processed for the use of these radionuclides" in the category of LSA–I referring to uranium and thorium ores and concentrates of such ores.

TS–R–1 (paragraph 226) contains a new category of LSA–I material, consisting of radioactive material, excluding non-excepted fissile material, in which the activity is distributed throughout and the estimated average specific activity does not exceed 30 times the activity concentration exemption values. The purpose of this category is to allow shipment as LSA–I of very low specific activity materials containing one or more of a variety of radionuclides. We are adopting this new category in the definition of LSA–I. A previous LSA–I category, which specifically included mill tailings, contaminated earth, concrete, rubble, other debris, and activated material in which the Class 7 (radioactive) material is essentially uniformly distributed and the average specific activity does not exceed 10^{-1} A_2/g, has been eliminated. The specific materials, *e.g.*, earth, concrete, and rubble, previously listed in the definition may still be classified as LSA–I, as long as they meet the requirements of the new definition.

We are also providing an authorization to transport unpackaged LSA–I and SCO-I by means of qualified tank containers, freight containers and metal intermediate bulk containers as industrial packagings, types 2 and 3 (IP–2 and IP–3). The authorization to use qualified tank containers, freight containers and metal intermediate bulk containers as industrial packagings and the other packaging changes made for LSA and SCO will greatly simplify the HMR with no increase in risk.

We have eliminated the previous paragraph § 173.427(d), which excepted LSA material and SCO that conform to the provisions of 10 CFR 20.2005 from all requirements of the HMR for Class 7 (radioactive) materials, when offered for transportation for disposal or recovery by means other than aircraft. Such material is 1.85 kBq (0.05 μCi) or less of H-3 or C-14 per gram of liquid scintillation counting medium or of animal tissue. These exceptions are no longer needed since the TS–R–1 exemption activity concentrations for these materials adopted in this final rule are 1×106 Bq/g (27 μCi/g) for H-3 and 1×10^4 Bq/g (0.27 μCi/g) for C-14; *i.e.*, they are greater than the concentrations previously excepted. Note, however, that this does not mean that these materials would be exempt from the provisions of the HMR relating to other hazard classes.

Incorporating these changes into the HMR greatly simplifies the LSA and SCO regulations by bringing them into closer harmony with the TS–R–1. Specifically, the addition of a contamination definition and the authority to transport unpackaged LSA and SCO better focuses the regulations on radioactive material that truly poses a hazard to persons, property, and the environment.

Discussion. Several commenters were concerned that the definitions and use of the terms LSA and SCO by DOT and NRC are not totally consistent and encouraged the review of the use of these terms to ensure compatibility with TS–R–1. We agree. This inconsistency has been resolved in this and the NRC's final rules.

Two commenters disagreed with the decision to remove the LSA–I definition of mill tailings, contaminated earth, concrete, rubble or other debris with average specific activity less than 10^{-6}/g, since much of the LSA shipped today is from this category. The commenter stated that eliminating these categories from the regulation will cause confusion and shipping delays. The specific materials mentioned, *e.g.*, earth, concrete, and rubble in the previous definition may still be classified as LSA–I as long as they meet the requirements of the new definition. Furthermore, it is believed the revised activity limits will ultimately reduce confusion and shipping delays by standardizing with the international community and the content of TS–R–1. Training on the new requirements should eliminate any confusion or shipping delays due to the revised definition.

One commenter stated that the actual meaning of "unpackaged" as discussed on 67 FR 21336–21337 and 21358 was unclear. The commenter noted that we had proposed to allow transport of unpackaged LSA–I and SCO–I in § 173.427. The commenter correctly interpreted the proposal to mean that LSA–I and SCO–I material may be shipped unpackaged in accordance with the proposed modification of § 173.427(c) which requires for the unpackaged material, other than for ores containing only naturally occurring radionuclides, that there be no escape of the contents from the conveyance nor a loss of shielding (Shipment of unpackaged LSA–I or SCO–I must also be by exclusive use; note however that unpackaged SCO–I is allowed to be transported non-exclusive use if the conditions of the modified § 173.427(c)(2) are met.) The commenter also correctly concluded that an LSA–I or SCO–I shipment no longer is required to be in a DOT Specification 7A, an industrial packaging, or a strong tight packaging, as is currently required by regulation, if the requirements of the modified § 173.427(c) are met.

One commenter incorrectly assumed that SCO–I material, such as pipes, can serve as their own packaging. The commenter cited TS–R–1 paragraphs 241 (a)(iii) and 523(c) and supplemental TS–G–1.1 (ST–2) information. Specifically, it was stated that SCO–I is allowed to have non-fixed contamination on inaccessible surfaces in excess of the values specified for accessible surfaces. Therefore, items such as pipes resulting from the decommissioning of a facility can be prepared for unpackaged transport in a way to ensure that there is no release of non-fixed contamination from inaccessible surfaces (for which allowable contamination levels may exceed the accessible surface non-fixed contamination limits) into the conveyance by, for example, applying end caps or plugs at both ends of the pipes. The commenter went on to state that the same principle applies equally to valves, compressors, tanks, or other surface contaminated articles which, because the contamination that renders the article SCO is limited to internal surfaces, may effectively serve as their own packagings. While the effective end result is virtually the same, the commenter is mistaken in saying these items serve as their own packaging. Rather, if they meet the definition of

SCO–I material, or suspected non-fixed contamination levels exceed the accessible surface non-fixed contamination limit, but measures are taken to ensure radioactive material is not released into the conveyance by making these surfaces inaccessible, thereby rendering the material fully compatible with the definition for SCO–I, then the material may be transported unpackaged in accordance with § 173.427(c).

The commenter also indicated that the LSA–I and SCO–I provisions addressed in paragraph 540 of TS–R–1 state that, when these materials are transported according to the provisions of paragraph 523, the marking "RADIOACTIVE LSA–I" or "RADIOACTIVE SCO–I" described in paragraph 540 is optional, and is not mandated by (the IAEA) regulation. The commenter encouraged DOT to permit similar flexibility in marking SCO and LSA materials. We interpret this to mean that the commenter would like to have the freedom to make exclusive use shipments of LSA–I or SCO–I without such markings.

We believe that, in accordance with past requirements for similar marking of domestic shipments of LSA or SCO that are required to be transported exclusive use, such markings serve the useful purpose of alerting emergency response personnel, Class 7 (radioactive) material is present in relatively low concentrations. We have therefore decided to retain this requirement. However, the comment focuses our attention on the lack of detail in § 173.427 in our proposed rulemaking concerning transport requirements for unpackaged LSA–I materials and unpackaged SCO–I. Therefore, in this final rule we have included wording in § 173.427(a)(4), (a)(6)(iii), and (a)(6)(vi) to indicate that unpackaged LSA–I and SCO–I are subject to the same transport controls as packaged LSA material and SCO.

Two commenters stated that the new definition for contamination and LSA–I will allow radioactive material to enter industrial and consumer goods. Another commenter stated that the LSA–I definition allowing exemption of materials having an estimated specific activity up to 30 times the exempt activity concentration should be eliminated because it fits the definition of volumetrically contaminated material and neither the NRC nor DOE currently allows for release or recycle of volumetrically contaminated radioactive materials.

We believe the commenters misinterpreted the proposed § 173.403 definition of LSA–I. No section of the proposed LSA–I definition provides an exemption, rather the sections provide bounding criteria of what may be considered LSA–I material.

A commenter stated that all ores, even if not intended to be processed, should be regulated because in the past certain companies have contaminated large areas from ores. As stated previously in Issue 2, we will continue to regulate natural materials and ores that are not intended to be processes for their radioactive content, when their specific activities are greater than ten times the activity concentration exemption values in § 173.436. One commenter stated that external dose rates for LSA and SCO should be required to be less than 1 mrem/year at 3 meters. We believe this comment is outside the scope of the rulemaking.

This commenter also stated there should be no exemptions for H–3 or C–14 in animal tissues. These exceptions have been removed in the final rule since the TS–R–1 exemption activity concentrations for these materials adopted in this final rule are 1×10^6 Bq/g (27 μCi/g) for H–3 and 1×10^4 Bq/g (0.27 μCi/g) for C–14 (*i.e.*, they are greater than the concentrations previously excepted). Note, however, that this does not mean that these materials would be exempt from the provisions of the HMR relating to other hazard classes.

Several commenters disagreed with the new rules that would allow LSA–I and SCO–I to be transported unpackaged, citing the conveyance could become contaminated. We agree that given the amounts of radioactive material contained in LSA–I and SCO–I materials there is a likelihood that cross-contamination of the interior of a conveyance used for unpackaged transport of these materials, in accordance with the proposed § 173.427(c), could occur. However, in order to prevent the spread of contamination to subsequent non-radioactive material shipments in the same conveyance, it is incumbent upon the carrier of an exclusive use shipment to ensure that the conveyance is surveyed and decontaminated, if necessary, in accordance with § 173.443(c), prior to unrestricted release of the conveyance. The carrier may perform such measurements, or these may be made by the consignee or other persons, through appropriate arrangements among the interested parties.

One commenter stated that it is not clear in the definition for "contamination" what is meant by the statement "Non-fixed (removable) radioactive contamination is not significant if it does not exceed the limits specified in § 173.443." We point out that our definition of contamination is similar to our definition of radioactive material, in that the definition designates a threshold value below which the material in question is not subject to the Class 7 hazardous materials transport regulations. In that context we agree that the statement referred to by the commenter is ambiguous and, if "Non-fixed (removable) radioactive contamination" were interpreted as referring to the physical (non-regulatory) definition of contamination, is redundant. Hence, we have removed this phrase from the definition of contamination.

The commenter also requested that the meaning of the terms "distributed throughout" and "estimated average specific activity" be clarified in the definition for LSA–I, and asked whether these terms are intended to be applied as discussed in NUREG–1608/RSPA Advisory Guidance 97–005 for LSA materials. The guidance concerning "distributed throughout" and "essentially uniformly distributed" would be appropriate as provided in NUREG–1608, "Categorizing and Transporting Low Specific Activity Materials and Surface Contaminated Objects." For packages containing at least 0.2 m^3 of LSA material, ten or more equal volumes no greater than 0.1 m^3 each, of objects or materials that are "distributed throughout," should not vary by more than a factor of ten. The specific activity among similarly defined volumes for materials that are "essentially uniformly distributed" should not vary by more than a factor of three. It should be noted that, where the LSA materials contain radionuclides in quantities less than 1 A_2, this determination may be made either quantitatively or qualitatively. The "estimated average specific activity" for radioactive material "distributed throughout" would be an arithmetic average specific activity of material where the range of specific activities does not vary by more than a factor of ten.

Issue 6: Uranium Hexafluoride (UF_6)

Background. Uranium hexafluoride (UF_6) packaging and transportation is regulated under both NRC and DOT requirements. The HMR contain provisions that govern many aspects of UF_6 packaging and shipment preparation. The NRC regulates fissile materials and Type B packaging designs for all materials. Since UF_6 may be a fissile material, it may also be regulated by the NRC.

TS–R–1 contains detailed requirements for UF_6 packagings designed for more than 0.1 kg UF_6. First, TS–R–1 requires the use of the International Organization for Standardization (ISO) Standard 7195, "Packaging of Uranium Hexafluoride (UF_6) for Transport," instead of the ANSI N14.1 standard, previously referenced in DOT's regulations, with the condition that approval by all countries involved in the shipment is obtained (*i.e.*, multilateral approval (Paragraph 629)). Second, TS–R–1 requires that all packages containing more than 0.1 kg UF_6 meet the "normal conditions of transport" drop test, a minimum internal pressure test and the hypothetical accident condition thermal test (Paragraph 630). However, TS–R–1 does allow a national competent authority to waive certain design requirements, including the thermal test for packages designed to contain greater than 9,000 kg UF_6, provided that multilateral approval is obtained. Third, TS–R–1 prohibits use of packages utilizing pressure relief devices (Paragraph 631). Fourth, TS–R–1 includes a new exception for UF_6 packages, regarding the evaluation of a single package.

This new exception (Paragraph 677(b)) allows UF_6 packages to be evaluated without considering the in-leakage of water into the containment system if the packages satisfy certain specified conditions. Under these conditions, a single fissile UF_6 package does not have to be shown to be subcritical under the assumption that there is water inside the containment system. This provision only applies when there is no contact between the valve and any other component of the cylinder under hypothetical accident tests and the valve remains leak-tight following the thermal test, and when there is a high degree of quality control in the manufacture, maintenance, and repair of packagings coupled with tests to demonstrate closure of each package before each shipment. In addition, competent authority package design certificates are also required for international shipments of uranium hexafluoride (paragraph 828).

Commenters to the December 28, 1999 ANPRM asked for the following information to be included in the HMR: (1) Clarification of the requirements for new cylinders, cleaned cylinders, and cylinders containing residual amounts of UF_6 (heel cylinders); (2) additional details regarding approval provisions; and (3) transitional or grandfathering provisions. We agreed with the need for additional information and included the requested guidance in the proposed and final rule. Furthermore, we recommend that shippers and carriers of UF_6 consult with IAEA Safety Guide TS–G–1.1, "Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material," for further clarification.

In this final rule we have incorporated the TS–R–1 changes for packagings containing more than 0.1 kg of UF_6. We have required that the packagings meet the pressure, drop and thermal test requirements found in paragraph 630. We have prohibited the use of pressure relief devices and provided designated packaging certification identification marks in accordance with IAEA TS–R–1 paragraph 828. We have not incorporated our proposal from the NPRM to allow uranium hexafluoride to be packaged and transported in accordance with ISO 7195. The reason is that the 1993 revision of ISO 7195 referenced in TS–R–1 is inconsistent with the ANSI N14.1 requirements, and there has been a delay in publishing a new revision which harmonizes the two standards.

Discussion. Two commenters supported RSPA's position to make only minimal changes to the regulation of uranium hexafluoride. While the commenters did not support the inclusion of industry consensus standards in regulations, they did support RSPA's recognition of the compatibility of ISO 7195 with ANSI N14.1.

One commenter disagreed that the thermal test should be required for domestic shipments of cylinders containing natural or depleted UF_6 given how extremely unlikely it would be for these cylinders to encounter thermal conditions similar to those of the hypothetical accident conditions and the safety basis for imposing such a requirement is questionable. The commenter referenced USEC's study "Probabilistic Safety Evaluation of 48-inch Loaded Depleted and Natural UF_6 Cylinders Involved in the ST–1 Regulatory Fire." The commenter noted the study of North American shipments of the 48-inch cylinders showed the expected frequency of occurrence of the regulatory fire resulting in cylinder rupture was extremely low, ranging from 1,800 to 29,000 years, depending on the mode of shipment.

Another commenter stated that large quantities of depleted UF_6 (about 60,000 Type 48G packages filled with UF_6 tails) are presently in storage. Furthermore, the DOE issued the "Final Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride" on April 23, 1999. The document considered the environmental impacts, benefits, costs, and institutional and programmatic needs associated with the management and use of approximately 700,000 metric tons of depleted uranium hexafluoride. In the Record of Decision for the Long-Term Management and Use of Depleted Uranium Hexafluoride, a decision has been made to convert the depleted UF_6 inventory to depleted uranium oxide for use, storage and disposal, as necessary. Approximately 4,700 cylinders of depleted UF_6 at one facility will need to be transported to a conversion facility. The commenter noted that if the proposed requirements for thermal protection are incorporated into the HMR for the depleted uranium hexafluoride cylinders, costs for overpacking and transporting these cylinders will increase substantially without any demonstrated additional safety benefit. The commenter recommended that the current HMR requirements for cylinders of depleted UF_6 be retained for domestic transportation for a period of five years.

Although the predicted frequency of occurrence of a fire resulting in a cylinder rupture is arguably low, when considering the potential increase in societal risks resulting from transport accidents involving fire and the long-term benefits ensuing from international radioactive material transport harmonization resulting from requiring thermal tests for packages designed to contain UF_6, we believe requirements for the thermal tests for domestic shipments are necessary.

One commenter stated the proposed revisions to modify the packaging requirements for uranium hexafluoride would relax the current requirement that a fissile material package must be designed, or the contents limited, so that a single package would be critically safe if water were to leak into the containment vessel. The commenter suggests the proposed regulations would provide an exception whereby a single fissile UF_6 package does not have to be shown to be subcritical under the assumption that there is water inside the containment system as long as certain conditions are met. The commenter concluded that given the potential serious consequences of a criticality accident, this proposed revision should not be considered or adopted in the absence of better justification and analysis. We disagree. Although this new section of the IAEA regulations (Paragraph 677(b)) allows UF_6 packages to be evaluated without considering the in-leakage of water into the containment system if the packages satisfy certain specified conditions

described above in the Discussion section, this is not a relaxation of previous regulatory requirements, rather, it is an enumeration of existing regulatory agency practices.

Issue 7: Air Transport Requirements

Background. TS–R–1 has introduced two new concepts for the air transport of radioactive material: the Type C package (paragraphs 230, 667–670, 730, 734–737) and Low Dispersible Material (LDM). Type C packages are designed to withstand severe accident conditions associated with air transport without loss of containment or significant increase in external radiation levels. The LDM is a material exception to these new air transport standards that is granted based on a material's limited radiation hazard and low dispersibility.

If qualified as LDM, material in quantities that would otherwise require a Type C package could continue to be transported by aircraft in a Type B package. U.S. regulations do not contain a Type C package or LDM category, but do have specific requirements for the air transport of plutonium (10 CFR 71.64 and 71.74). These specific NRC requirements for air transport of plutonium will continue to apply.

The Type C requirements apply to all radionuclides packaged for air transport that contain a total activity value above 3,000 A_1 or 100,000 A_2, whichever is less, for special form material, or above 3,000 A_2 for all other radioactive material. Below these thresholds, Type B packages may be used in air transport. The Type C package performance requirements are significantly more stringent than those for Type B packages. For example, a 90-meter per second (m/s) impact test is required instead of the 9-meter drop test. A 60-minute fire test is required instead of the 30-minute for Type B packages. These stringent tests are expected to result in package designs that will survive more severe aircraft accidents than Type B package designs.

The LDM specification was added in TS–R–1 to account for radioactive materials (package contents) that have inherently limited dispersibility, solubility, and radiation levels. The test requirements for LDM to demonstrate limited dispersibility, and leachability are a subset of the Type C package requirements (90-m/s impact and 60-minute thermal test) with an added solubility test, and must be performed on the material without packaging. The LDM must also have an external radiation level below 10 mSv/h (1 rem/hr) at 3 meters. Specific acceptance criteria are established for evaluating the performance of the material during and after the tests (less than 100 A_2 in gaseous or particulate form of less than 100 micrometer aerodynamic equivalent diameter and less than 100 A_2 in solution). These stringent performance and acceptance requirements are intended to ensure that these materials can continue to be transported safely in Type B packages aboard aircraft. LDM must be certified as such by the Competent Authority (Paragraphs 803, 804, 828, 830).

In 1996, the NRC communicated to the IAEA that the NRC did not oppose the IAEA adoption of the newly created Type C packaging standards (letter dated May 31, 1996, from James M. Taylor, EDO, NRC, to A. Bishop, President, Atomic Energy Control Board, Ottawa, Canada). However, Mr. Taylor stated in the letter that, to be consistent with United States law, any plutonium air transport to, within or over the United States will be subject to the more rigorous U.S. packaging standards.

A commenter to our 1999 ANPRM asserted that the testing criteria for Type C packages are inadequate. For example, the commenter questioned the rigorousness of the testing described in TS–R–1, indicating that the minimum acceptable impact speed should be increased to at least 129 m/s, as was mandated by Congress. Several commenters stated that it is unclear what the differences are between a Type B and Type C package and that the definitions should be clarified. Several commenters supported the addition of the term LDM and recommended its incorporation into the HMR. Finally, one commenter suggested that the new concept of LDM was introduced to offset the problems encountered in developing a Type C package. The commenter further asserted that the nuclear industry would attempt to certify reprocessed fuel known as MOX as LDM. The commenter believed there are significant safety implications regarding the movement of these substances via transportation by air and very strongly opposed any adoption of requirements in this area.

According to the DOT and NRC MOU, the NRC has responsibility for matters concerning packagings for fissile and greater-than-Type-A quantities of radioactive material. The NRC is not adopting the concepts of Type C packages or LDM at this time. In accordance with the NRC position, RSPA is not adopting the IAEA standards for Type C packaging or LDM in this final rule.

Discussion. All commenters supported the proposal not to adopt the IAEA standards for Type C packaging or Low Dispersible Material. Therefore, as proposed in the NPRM, we are not adopting the IAEA standard for Type C packaging or LDM.

Issue 8: Fissile Material Package and Transport Requirements

Background. Under the MOU between DOT and NRC, the NRC establishes the packaging requirements for the transport of fissile radioactive material, including excepted fissile material (*i.e.*, fissile material which may be transported as if it were non-fissile Class 7 (radioactive) material). In February 1997, the NRC published an emergency final rule (62 FR 5913, February 10, 1997) to amend 10 CFR 71 with respect to the regulations for shipping small quantities of fissile material. This rule was issued in response to a regulatory defect in the fissile material exemption regulations in § 71.53 of 10 CFR identified by an NRC licensee.

Based on the public comments on the emergency final rule, the NRC contracted with Oak Ridge National Laboratory (ORNL) to perform a thorough analysis of the possible hazards involved and to provide recommendations. In July 1998, the NRC published ORNL's conclusions as NUREG/CR–5342, entitled "Assessment and Recommendations for Fissile-Material Packaging Exemptions and General Licenses Within 10 CFR Part 71." Based on the research and recommendations of this report, the NRC in its NPRM to harmonize 10 CFR 71 with TS–R–1, proposed several changes to its requirements for fissile exemptions, which were reiterated in § 173.453 of our NPRM. As a result of comments received by the NRC to the proposed wording in its NPRM, it has made several modifications in its final rule, and we have adopted those changes in this final rule. For further information the reader is directed to the NRC's discussion of Issue 16 in its final rule.

In its NPRM, the NRC also proposed the introduction of a Type B(DP) package, to be certified for use and used both to transport and to store spent nuclear fuel. Such a package would be issued an NRC Certificate of Compliance approving the design of a spent fuel (fissile material) transportation package, in accordance with the requirements of subpart I of 10 CFR 71, and an NRC Certificate of Compliance approving the design of a spent fuel storage cask, in accordance with the requirements of subpart L of 10 CFR 72. To maintain consistency between the NRC and DOT's regulations, we proposed wording in subpart I of 49 CFR 173, in our NPRM in which the concept of a

Type B(DP) was introduced. As a result of comments received by the NRC to the proposed wording in its NPRM, it has decided to withdraw reference to a Type B(DP) package in its final rule. Consequently, we have revised the text in this final rule to remove references to a Type B(DP) package.

As a result of the publication of our ANPRM, several commenters asserted that the TS–R–1 requirements for conducting criticality analyses for fissile materials being shipped by air required clarification. The commenters stated that a guidance note should be issued and included in TS–R–2 (now referred to as TS–G–1.1) when published and the HMR should reflect this clarification. Although we have no authority to make unilateral changes in IAEA documents, we stated we would analyze problems in performing criticality analyses for the shipment of fissile materials by air as they arise, in coordination with the NRC, and the possibility of issuing a guidance document would be considered if it appeared to be an appropriate means to address any problems encountered.

Other commenters stated DOT should provide clear guidance regarding the requirements for obtaining U.S. Competent Authority Certificates for air transport of fissile materials prior to formal harmonization of TS–R–1 and the HMR. However, the NRC and DOT did not propose to adopt TS–R–1 provisions for Type C packages or Low Dispersible Radioactive Material (LDRM). The practical consequence of this is that RSPA's Office of Hazardous Materials Safety, as U.S. Competent Authority, does not intend to issue Certificates of Competent Authority for Type C packages or LDRM. Other Certificates of Competent Authority for the international transport of fissile materials by air will be issued in accordance with §§ 173.471 and 173.473.

Accordingly, in this rulemaking we are: (1) Adopting the NRC fissile material exemption provisions in § 173.453; (2) removing the definition for "fissile material, controlled shipment,"; (3) revising §§ 173.457 and 173.459 to remove the references to "fissile material, controlled shipment"; and (4) establishing requirements for non-exclusive use and exclusive use shipments of fissile material packages based on TS–R–1 package and conveyance CSI limits, since we feel that this will considerably simplify the transport of fissile material packages, while maintaining appropriate criticality safeguards.

Discussion. We received four comments concerning fissile material package and transport requirements regarding the fissile material exceptions in the proposed § 173.453. In accordance with the MOU, we ensured that the comments had been addressed by the NRC review and we have incorportated the revised NRC language for fissile material exceptions into § 173.543 in this final rule. It should be noted that the final rule concerning fissile material exceptions applies to domestic situations only. International transport concerning fissile material exceptions will also need to comply with the requirements of the International Civil Aviation Organization's Technical Instructions (ICAO), the International Maritime Dangerous Goods Code (IMDG Code) or Canadian regulations, as applicable.

A commenter stated that the wording of proposed § 173.417(c) is confusing as it is presently written since the 1A2 steel drum/Type A combination packaging is not a Type B packaging and then suggested that "Type B packaging" be changed to "packaging for fissile material." We agree and the change has been incorporated into this final rule.

Issue 9: Transitional Requirements

Background. Transitional requirements typically authorize: (1) Continued use of existing package designs and packagings already fabricated, although some additional requirements may be imposed; (2) completion of packagings that are in the process of being fabricated or that may be fabricated within a given time period after the regulatory change; and (3) limited modifications to package designs and packagings without the need to demonstrate full compliance with the revised regulations, provided that the modifications do not significantly affect the safety of the package.

Each transition from one edition of the IAEA regulations to another (and the corresponding revisions of the NRC and DOT regulations) included transitional provisions. The transitional provisions in TS–R–1, the latest version, are found in paragraphs 815–818 of that document. Although provisions for continued use of packages and special form sources previously approved in accordance with the 1973 and 1985 editions of the IAEA regulations remain virtually unchanged, TS–R–1 does not provide transitional provisions for packages approved under the 1967 edition of the IAEA regulations.

The TS–R–1 transitional provisions will have several impacts. The primary impact is that under TS–R–1 provisions, Safety Series No. 6 (1967) approved packagings will no longer be authorized. The second impact is that fabrication of packagings designed and approved under Safety Series No. 6 1985 (As Amended 1990) must be completed by a specified date.

In TS–R–1, packages approved for use based on Safety Series No. 6 (1973/1973A revisions) will continue to be authorized for use and can continue to be used through their design life, provided they meet the following conditions: (1) Multilateral approval is obtained, as applicable; (2) TS–R–1 quality assurance requirements are adhered to; (3) TS–R–1 A_1 and A_2 activity values are used; and, (4) if applicable, approval for air transport of fissile radioactive material is obtained. While existing packagings are still authorized, no new packagings may be fabricated to this design standard. Should a safety issue associated with the package be identified, this packaging will need to meet all of the applicable requirements of TS–R–1. In summary, a packaging designed to Safety Series No. 6 (1973/1973A) may continue to be used.

In similar fashion, TS–R–1 states that those packages approved for use based on Safety Series No. 6 (1985/1985A revisions) may continue to be used, provided the packaging meets the following conditions: (1) TS–R–1 quality assurance requirements, (2) TS–R–1 A_1 and A_2 activity values, and, (3) if applicable, approval for air transport of fissile radioactive material. After December 31, 2003, use of these packages may continue under multilateral approval if applicable. Should a safety issue associated with the package be identified, the packaging will need to meet all of the applicable requirements of TS–R–1. Additionally, use of this packaging will end on December 31, 2006. Beginning January 1, 2007, all packages shipped internationally will be required to meet TS–R–1 packaging approval requirements.

The NRC has stated in its final rule that it believes that packages approved under the 1967 edition of Safety Series No. 6 lack the enhanced safety features that have been incorporated in the packages approved under later revisions of the regulations. NRC cites the fact that more recent packages are required to be more leakage resistant, and that all packages presently approved by the NRC must satisfy the pertinent quality assurance requirements described in subpart H of 10 CFR 71. A more complete list of enhancements to package safety requirements since the 1967 IAEA regulations is found in the NRC NPRM (67 FR 21406), and includes: (1) The introduction of the

A1/A2 system; (2) standards for defining acceptable containment system performance; (3) the immersion test for Type A fissile material packages; (4) maximum normal operating pressure; (5) the definition of appropriate test parameters for evaluation of the package under normal and accident condition tests; and (6) quality assurance requirements for the design, fabrication, and use of Type B packages. NRC has also noted that the elimination of packages approved against the 1967 IAEA regulations first became public knowledge in 1996, with the IAEA's publication of ST–1 (later renamed TS–R–1). The NRC is therefore phasing out all of its package design certificates based on the 1967 IAEA Regulations.

In its analysis, NRC considered that designs for 1967-based packages would fall into one of five categories: (1) Package designs that may meet current safety standards with no modifications but have until now not been submitted to the NRC for review against these standards; (2) package designs that can be shown to meet current safety standards after relatively minor design changes; (3) spent fuel casks certified to the 1967 standards, for which stringent quality assurance requirements for design and fabrication did apply; (4) package designs that cannot be shown to meet current safety standards; and (5) packages for which the safety performance of the package design under the current safety standards is not known. NRC believes that it is appropriate to phase out use of designs that fall into the last two categories.

DOT Specification 6L, 6M, 20WC and 21WC packages are packages that have not been shown to satisfy packaging requirements of the 1973, 1985, or 1996 IAEA radioactive material transport regulations. In accordance with the decision by the NRC to phase out packages approved against the 1967 IAEA Regulations, and recognizing that under the MOU between the two agencies that NRC has cognizance over domestic use of Type B and fissile material packages, we proposed in our NPRM that as of the effective date of this final rule no new manufacture of packages of these types be allowed, and that all use of these packages cease as of two years following the effective date of this final rule.

In this final rule, to provide more time for affected parties to adjust to the new requirements and in consultation with the NRC, we have doubled the transition period to four years from the effective date of the rule, and have set the effective date to be nine months after publication of this final rule in the **Federal Register**. Thus, from the date of publication of this final rule, affected parties will have approximately five years to establish appropriate packaging alternatives.

It has been known since the publication of IAEA's ST–1 in 1996 that packages designed in accordance with the 1967 IAEA regulations would no longer be allowed for international transport. Moreover, NRC made clear that it was considering adopting this restriction for domestic transport. Thus, by the end of the five year period affected parties will have had approximately 12 years to adapt to the domestic elimination of these packages.

Discussion. Commenters to the NPRM generally stated that some type of transitional arrangements should be provided in the HMR to clarify how packages manufactured under earlier versions of Safety Series 6 will be phased out, and how and if these packages may be re-validated. One commenter suggested that we should provide a transition period prior to the full adoption of TS–R–1 that would provide shippers and carriers the flexibility to make shipments of radioactive materials under the current HMR requirements (equivalent to Safety Series 6) or under TS–R–1. Several commenters stated that for domestic shipments, we should provide a one-year transition period for complete implementation of the TS–R–1 regulations. Other commenters suggested that we incorporate the following statement into the HMR: "Packages that have been prepared for transport prior to (five-year effective date) may be offered for transport provided that the labeling, marking, and placarding provisions of the regulations in effect at time of shipment are complied with."

We agree that shippers and carriers will need time to adjust to the changes in the regulations introduced in this final rule, and that there should be a sufficiently long transition period for affected shippers to adapt to the removal of the DOT Specification packages. Accordingly, as we mentioned earlier, for most of the new requirements we are delaying the effective date of this rule to one year after its publication in the **Federal Register**. In addition, for reasons discussed below and in Section D, "Regulatory Flexibility Act, Executive Order 13272, and DOT Regulatory Policies and Procedures," we are substantially lengthening the transition period before use of the DOT Specification packages is prohibited, from the two years originally proposed to four years after the effective date of this final rule. Thus, the regulated community will essentially have five years from the date of publication of this final rule before all use of the DOT Specification packages must cease, unless they have been shown to satisfy current performance requirements and are certified by the NRC.

A commenter supported the overall intent of the proposed modifications. As the number of international shipments increases, a common set of regulations will enhance the safety of these shipments. However, the commenter stated that DOT and NRC regulations should also provide allowance for domestic shipments that are unique to the United States. One example is the grandfathering of shipping packages. The commenter suggests that packages manufactured to the 1967 safety standard should be allowed to continue in domestic service, unless a safety problem is identified. The commenter stated that it is a small business and has estimated that replacing the two-year old DOT Specification 6L packages currently in use with newly-designed packages will cost about $500,000.

Two commenters reiterated how important the grandfathering issue pertaining to previously approved packages is to the future success of their organization as well as other small businesses that routinely transport Type B quantities of radioactive materials domestically. The commenters questioned why some packages with proven safety records would be phased out for domestic shipments in as little as two years after the final rule is issued. They noted that significant resources have been invested in transportation packages designed specifically for certain applications, and these packages will no longer be authorized for use should the regulations change as proposed. The commenters did not support the IAEA grandfathering provision for packages designed in accordance with the 1967 standard when such package(s) are limited to domestic-only shipments.

A primary concern of the commenter was with regard to transporting iridium-192, which is used for industrial radiography, and which is an integral part of the oil and gas pipeline industry, commercial and military aircraft safety maintenance programs, and ship construction and repair. The commenter stated that his company is the only domestic commercial source of this radioisotope for industry. The commenter cited extensive shipping experience using the GE–8500 transport container, without incident, for the past 23 years and stated that if the proposed regulations are adopted, none of these containers will be available for use and

there are no other containers available in the world that meet the proposed new requirements for domestic use within the United States.

The commenter estimated that the cost of replacing these transport containers with ones meeting the proposed regulations, and having these packages reviewed and accepted by the NRC, would be at over a million dollars; and disregarding cost, it is unlikely the NRC would approve any new containers before the implementation date. Therefore, adoption of the new regulations would eliminate the company's ability to provide a domestic supply of critical radioisotope for both commercial and military applications and would dictate that only foreign companies could import this material.

A second concern expressed by the commenter was that the proposed rules would essentially remove from service any and all containers that could be used to transport isotopes from the Department of Energy's Advanced Test Reactor for medical or industrial use, and that in order to use this rare domestic reactor source for isotope production a new transportation package would have to be constructed that would meet the Safety Series 6, 1985 criteria. The commenter further stated that the time and cost associated with the design, manufacture, testing, and approval of such a container would likely exceed the financial ability of the commenter's company.

The commenter recommended currently approved DOT specification packages (such as welded special form sources inside a Type A package, within a 20WC overpack) should continue to be approved for domestic shipments. The commenter stated that the cost associated with phasing out transportation packages that have been in use safely for decades cannot be justified solely on the basis of harmonizing the regulations with the IAEA Transportation Safety Standards (TS–R–1). The commenter further recommended that DOT accept Competent Authority Certificates for foreign made Type B packages without requiring revalidation by a U.S. Competent Authority. The commenter stated that the basis for this suggestion is that revalidation by the U.S. of foreign made (Type B(U)) packages for which another country has already issued a Competent Authority Certificate in accordance with TS–R–1 is a redundancy that provides no additional benefit.

We disagree. For safety reasons it has long been NRC and DOT policy that revalidations of foreign package design approvals should be made for import and export, or for domestic use of such packages, only after we have assured ourselves that the packages do in fact meet our safety standards.

Another commenter focused on the proposal to eliminate the manufacture and use of all packages manufactured to IAEA 1967 Safety Series No. 6 requirements used for shipment of Type B quantities of special form radioactive material, two years after the effective date of the regulation. Specifically, the commenter referenced DOT Type 7A packages fitted with a metal jacket and contained in a DOT Specification 20WC overpack, and overpacks manufactured pursuant to NRC Certificate of Compliance (CoC) 6280. The commenter stated that after these packages are prohibited the only means of certifying new transportation packages (either new designs or recertifications of 1967 designs) would be via new Certificates of Compliance issued by the NRC, and there are reasons why the proposal should not be incorporated into regulation. The supporting rationale for the commenter's position can be described under five broad headings; these are discussed in detail below: (1) Increased costs; (2) safeguard/security issues; (3) safety record of 1967 Specification packages; (4) unnecessary harmonization; (5) transition period.

(1) *Increased costs:* The commenter stated that if the proposal is applied to domestic shipments, it is likely to have far different effects than those intended including unacceptably high costs for many small but important business entities, thus either substantially weakening firms or literally driving them out of business with no ready successors. The commenter suggested that there is also a potential for substantial delay in approving new designs or recertifying existing designs. The commenter's organization typically makes approximately 200 shipments per year for its operations and does not own any other overpacks suitable for its shipments. The commenter stated that there are between 100 and 200 20WC Specification containers in use in the United States today, in addition to the 15 owned and used by the commenter, and there are probably between 25 and 50 active NRC-approved 1967 containers in service, in addition to the two owned by the commenter's organization. If these estimates are accurate, the commenter asserts that the overall effect of implementation of the proposal to eliminate use of packages designed to the 1967 IAEA standards would be on the order of 10 to 15 times that projected by the commenter's organization alone.

The commenter stated that it manufactures some 1000 devices and ships them in either NRC CoC or DOT Specification containers built to the 1967 standards in current use throughout the United States, and it is certain that under the proposed regulations at least two CoCs would have to be obtained, either to requalify existing containers or to construct new ones meeting the TS–R–1 requirements. The commenter asserts that it is also possible that as many as a dozen or more CoCs would have to be obtained, depending on the NRC's licensing flexibility.

The commenter estimated that for each required CoC, it will cost at least $500,000 and take upwards of two years to design, test and obtain regulatory approval from the NRC for the corresponding new or requalified package. Thus, the commenter provided the following cost estimates: (1) Redesign/reapproval would range between $1 million and $6 million for the commenter's organization; (2) new overpack construction would cost about $50,000 each, with anticipated total costs of between $600,000 and $750,000; (3) the value of existing overpacks, with a per-unit depreciated value of about $30,000 apiece, would be lost, for a total of approximately $500,000. Therefore, the commenter estimated its overall cost of compliance to be $2–8 million. The commenter concluded that given this cost estimate compared to the commenter's organization's annual revenues and net worth, to proceed would be a sufficiently questionable economic decision that the company would, instead, probably close its doors and go out of business.

Upon consulting with the NRC, we believe that the estimated costs for certifying existing packagings or new designs against current requirements will be far less than the commenter estimated, on the order of $40,000 to $390,000 for each package design, or an estimated $120,000 to $1.17 million total (if complete redesigns consolidate content requirements to three designs). Individual packaging rework or full construction costs are further estimated at $200 to $50,000 each.

The commenter also stated that if the devices they service cannot be legally shipped, the value of these devices will be largely or totally lost from the time they need to be re-sourced or refurbished. At an average cost of approximately $50,000 per unit, this would mean an aggregate cost on the order of $50 million, distributed among several hundred customers. Since we believe a cost-effective solution will be

readily achievable, the value of the devices will not be lost, so we feel that this cost estimate is moot.

The commenter also stated that the organization's devices, which were built to be shipped in DOT Specification packages, contained source shielding and housing containers that were built under Quality Assurance standards that were not governed by the NRC's QA program in 10 CFR Part 71, §§ 71.101–71.135. As a result, the documentation or "QA Paper" for these devices may not conform to NRC QA requirements even though actual design, procurement and construction standards may have been identical or equivalent to NRC standards. Therefore, the commenter stated, it would not be possible to document the "pedigree" of such components as the shielding and the housing of these devices, which are integral to the device but technically part of the "packaging" as defined in NRC and DOT regulations (10 CFR 71.4 and § 173.403). Therefore, unless the NRC either amends or relaxes its interpretation of its QA requirements, the commenter suggests it likely that NRC will not accept packages initially designed and manufactured to DOT specifications. In that event, according to the commenter, the cost of compliance would rise dramatically, as one of three scenarios would follow:

a. Transportation containers weighing upwards of 60,000 pounds would have to be designed that could transport existing devices without taking any credit for the radioactive shielding or structural housing surrounding the source, which would require special highway authorizations and increase costs. The commenter estimated that designing, licensing and constructing such a container, with dedicated tractor and specially designed trailer, would cost upwards of $2,250,000. The cost of succeeding containers, each with its own trailer, would approach $1,000,000 apiece. Shipping costs for these containers would also be an order of magnitude higher than those for current devices ($35,000–$40,000 vs. $3000 per trip now). Even then, the transportation rig would be unable to access numerous locations that can now be reached, thus running the risk that some sources would be stranded. Therefore, this alternative, while technically feasible, is physically cumbersome and sufficiently more costly than current shipping modes that many existing customers would be tempted to buy and ship new devices rather than have existing ones re-sourced or hauled away for decommissioning.

b. Sources could be transferred at the customer's site from the existing device to a specially designed "transportation container," using a portable hot cell transported to the customer's site. This option has not been fully cost estimated because it appears to have almost insuperable obstacles. First, most of the devices are fabricated with welded end-caps, in order to prevent tampering by unauthorized persons. As a result, removing the source is a difficult, potentially high-exposure process when conducted in the field. Second, setting up a hot cell is an unavoidably expensive business—on the order of $300,000 per installation. Even if devices were designed with screw-on end caps (and some are) and special shipping containers were designed to operate with them—thus substantially lessening the labor and radioactive exposure associated with a transfer—it would still be necessary to set up a portable hot cell. This alternative is prohibitively expensive except in extreme conditions. It is also inconsistent with the as low as reasonable achievable (ALARA) goal of minimizing occupational exposures to radiation.

c. Existing sources in existing devices manufactured to DOT specifications would become unshippable in existing packages, and their value would be lost as of the time their sources next need to be removed. There are nearly 1,000 of these devices in service throughout the U.S., so the cost to customers, at an average value of $50,000, would be $50 million. The commenter regarded this scenario as the most likely, since the cost of the other two scenarios is likely to deter market entrants.

As a result, the commenter stated that the actual total numbers of 20WC overpacks and the devices shipped in them are on the order of 10 to 15 times its own. In that event, the commenter stated that the industry-wide economic costs projected can be extrapolated as follows:

Cost of design, testing and licensing of new designs: $10,000,000 to $90,000,000
Costs of construction of new overpacks: $6,250,000 to $12,500,000
Loss of value of existing overpacks: $5,000,000 to $10,000,000
Loss of value of existing devices: $500,000,000 to $1,000,000,000.

Finally, the commenter stated that numerous participants in this market sector are small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 9 601 *et seq.*, and the draft Regulatory Analysis does not account for this fact. The commenter stated that both the NRC and DOT have mis-assessed the impact of their proposals on small entities protected by the Regulatory Flexibility Act. In any event, the commenter suggests that the NRC's characterization of nuclear power plant operators as the typical type of entity affected by the proposal under discussion is incomplete. In addition, the commenter states that affected entities include hospitals, research facilities, blood banks, colleges and the like, numerous of which fall within the size or income categories of small entities.

We do not agree. We find it implausible, given activity levels that are currently routinely transported in legal weight vehicles, that these devices will require overweight vehicle transport. Therefore, we discount this cost estimate. We agree that the option of setting up satellite hot cells to perform refurbishment may not be a cost-effective viable option; however we do not rule out the possibility free market initiatives could make this a desired alternative. We do not believe there will be a loss of value to devices currently in use, since packages that conform to current safety standards will be found to replace those being phased out.

We note that the fact that a packaging may lack complete QA documentation, although "the actual design, procurement and construction standards may have been identical or equivalent to NRC standards," is an important reason for upgrading the packaging, or for replacing it with a packaging that can be shown to satisfy current safety requirements. Only when and if it can be shown that the design, procurement and construction standards were in fact equivalent to current requirements can we have confidence that such is the case.

Assuming conservatively that on the order of 10 to 20 new package designs for the 20WC would need to be approved by the NRC, that from 50 to 100 replacements for the 20WC packagings would need to be manufactured, using typical cost estimates from the NRC of $300,000 to $390,000 for design, testing, and licensing, manufacturing costs of $50,000 per manufactured package, and the commenter's estimate of $30,000 per package for depreciation costs, we believe that a conservative estimate of the industry-wide cost can be projected as follows:

Cost of design, testing and licensing of new designs: $3,000,000 to $7,800,000
Costs of construction of new overpacks: $2,500,000 to $5,000,000
Loss of value of existing overpacks: $1,500,000 to $3,000,000

Estimated total cost to industry:
$7,000,000 to 15,800,000.
Therefore, we conclude that the realistic costs are relatively modest and we believe the commenter has overestimated total industry-wide costs resulting from the proposal by almost two orders of magnitude.

With respect to the assertion by the commenter that numerous participants in this market sector are small entities, we received only three comments regarding the economic cost of removing the 1967 Specification Packages from service. In addition, NRC staff found that only 15 of 127 NRC licensed quality assurance programs belong to small entities, and that of these, only 2 or 3 would be appreciably affected by the elimination of the 1967 based packages. They concluded from these data that this requirement would not cause a significant economic impact for a substantial number of small entities.

(2) *Safeguard/security issues:* The commenter stated that at some point in time every device containing a radioactive source needs either a fresh source, refurbishment, or retirement. The commenter also stated the proposal would make devices and sources now shipped in currently approved packages not legally transportable in any currently licensed container, thus creating hundreds of sites with thousands of orphan sources that could no longer be used, could not be shipped for orderly disposition, and would have to be maintained and safeguarded indefinitely. For instance, one obsolete type of device distributed under the aegis of the former AEC is known to be located in at least five high schools and 28 colleges or universities around the country, awaiting shipment for decommissioning. According to the commenter, under the proposed regulations these would then be orphaned. Therefore, the commenter asserts that facility managements, in coordination with state governments (in Agreement States) or the NRC, must then store them safely, indefinitely, keeping them physically secure, protecting personnel against radiological hazards, and guarding against security hazards, such as theft by terrorists.

To make matters worse, the commenter suggests that as long as these devices are unable to be shipped. no entity possessing them can conduct a final radiation survey and terminate its license. Every such licensee must remain indefinitely on NRC or Agreement State rolls. In the meantime, the commenter asserts that any closure of any facility containing such a device, or any sale or other transfer or conversion, becomes virtually impossible since the current licensee must either remain on the license for the device or transfer it to another qualified potential licensee. This not only greatly complicates normal real estate transactions but basically freezes any facility in its current use and ownership indefinitely. The commenter raised the possibility that one collateral effect of the pending proposal may be that it constitutes a major federal action significantly affecting the human environment, thereby requiring a full-blown Environmental Impact Statement under the National Environmental Policy Act, 42 U.S.C. 4331 *et seq.*

We do not agree, especially given an effective five-year transition period from publication of the final rule, that the loss of authorization to use 1967 Specification packages could result in thousands of sources becoming orphaned. For example, a situation exists where non-licensees find themselves to be in possession of radioactive sources that they did not seek to possess, at hundreds of sites. Even with no transition time, the sources will not immediately become orphaned.

Additionally, we believe that five years will provide a sufficient transition period, in the near future, as an interim transport methodology for those devices that require refurbishment, repair, relocation etc., or if the licensee is undergoing a license termination evolution, while the concurrent process of designing, constructing, and approving packages, in accordance with current safety standards will allow sufficient time for an orderly phase out of the 1967 Specification packages.

(3) *Safety record of 1967 Specification packages:* The commenter stated that the packages designed and built to 1967 specifications and properly maintained have an excellent safety record, and that neither agency alleges any safety problem with their design, which was subjected to 30-foot drop, fire and immersion tests by Sandia Laboratory in 1968. The commenter added that both the NRC and DOT concede in their rulemaking notices that their proposal to eliminate 1967 Specification containers from domestic use does not rest on a health-and-safety foundation and that current container regulations provide adequate safety.

The commenter is correct in stating the packages were subjected to drop, fire, and immersion tests. However, concerning the 1967 Specification packages, since there is often no quality assurance program element, inadequate testing to international contemporary consensus standards, and no stand-alone safety analyses report, the packages, unless recertified to current standards, need to be recognized as being outdated and obsolete.

We also agree there is no current safety issue that would require the immediate elimination of the 1967 Specification packages. However we believe there will be an increase in the level of safety resulting from adopting the proposed regulations, and this increased level of safety is provided at a reasonable cost. Therefore, we are adopting the proposed elimination of the DOT Specification packagings, with a modified implementation time of four years from the effective date of this rule, after a one year period between publication of the final rule in the **Federal Register** and the effective date.

(4) *Unnecessary harmonization:* The commenter stated that neither the NRC nor DOT has advanced a substantial argument, other than consistency with IAEA requirements (which are not binding under U.S. law), for compelling the elimination of these containers from continued use in U.S. domestic commerce. The commenter added it is useful to incorporate technical advances in equipment into regulations, but not sensible to require costly change with respect to adequate existing equipment absent significant offsetting safety or other statutory-policy justifications. The commenter also stated that IAEA requirements, or regulations, are not self-implementing inasmuch as they do not bind the United States, or any member State, unless ratified or accepted by that State's government. Indeed, IAEA recognizes in TS–R–1 that national-level departures from its provisions may be "necessary for solely domestic purposes" and DOT is only obligated to ensure only that U.S. domestic regulations are "consistent with" international standards, and then only "to the extent practicable." Finally, the commenter stated there is neither a tangible safety benefit to be achieved nor a definable risk to be avoided from the proposed elimination of 1967 Specification packages as applied to domestic shipment of Type B quantities of special form radioactive materials.

We agree that the IAEA regulations are not binding in the U.S., unless adopted, and have implemented exceptions when deemed necessary. Since the old packages will be replaced by packages that will have shown to conform to current safety standards, we believe elimination of the 1967 specification packages will increase the level of transportation safety.

(5) *Transition period:* The commenter urged the rulemaking be modified so as to permit the indefinite continued use of

properly maintained existing packages built to 1967 IAEA Safety Series No. 6 Specifications for the shipment of Type B quantities of special form radioactive material within the United States. However, the commenter stated any "sunset" deadline on use of any package design being phased out under this proposal should permit its continued use pending ultimate decision by the NRC on either re-certification of the existing design or approval of a new design.

The commenter suggests that if a specific "sunset" date is chosen, it should be significantly longer than the ones proposed by either the NRC or DOT, which should agree on a common "sunset" date. Due to the time necessary to design, fabricate, test and gain NRC review of a new CoC design, the commenter asserts that the two-year transition period proposed by DOT would cause a shipping hiatus even if costs were not an issue.

We agree. Due to the reasons cited earlier, and after consultation with the NRC, we are providing a nine month window from publication of this final rule in the **Federal Register** to the effective date when it becomes obligatory, and a four year transition period from the effective date before use of the DOT specification packages is no longer allowed. The total transition period from the publication of the final rule to the date when these packages may no longer be used will be approximately five years. This will increase the level of transportation safety at an acceptable cost, provide a reasonable, low-impact solution taking all concerns into consideration, and allow a sufficiently long transition period for introduction of replacement packages.

This five-year transition period is in addition to the time that it can reasonably be assumed that it became general industry knowledge that the use of these packagings would be eliminated domestically. The IAEA "Regulations for the Safe Transport of Radioactive Material" have provided a basis for U.S. radioactive material transport regulations for decades. Paragraph 713 of the 1985 Edition (As Amended 1990) of Safety Series No. 6 stated "Packagings manufactured to a design approved by the competent authority under the provisions of the 1967 Edition of these Regulations may continue to be used, subject to multilateral approval."

The 1996 Edition of the IAEA regulations (TS–R–1) completely eliminated any transitional arrangements for the use of packagings manufactured to a design meeting the requirements of the 1967 Edition of the IAEA regulations. As a consequence of this change, DOT notified all registered users of the Certificate of Competent Authority USA/5800/B for the use of the DOT Specification 20WC packaging for import and export, including this commenter, that the 1996 IAEA regulations had removed the transitional approval provisions for Type B packages constructed in accordance with the 1967 Edition of the IAEA regulations, and that therefore, users of DOT Specification 20WC packaging would be required to show that their package meets the performance criteria of the 1996 regulations or it would have to be transported under a Special Arrangement when used for import or export.

This notification was made via written memoranda sent on each of four different occasions, in 1997, 1998, 1999, and 2000. These memoranda further stated that no Special Arrangements were envisioned after January 1, 2001, since the advent of this requirement would by that time have already been public knowledge for several years. Consequently, for those users who also used this packaging for international shipments, these notifications, along with an effective five-year transition period from the publication of this final rule, will have provided an effective transition period of more than a decade for elimination of the 20WC packaging.

Another commenter stated that DOT and NRC must recognize that while IAEA standards generally have good technical bases, they are consensus standards that do not necessarily consider the risk-informed, performance-based aspects of regulations that we have developed in the United States. Therefore, this commenter suggests that while most of the IAEA standards should be incorporated into U.S. regulations, the unique aspects of the U.S. regulations need to be considered. The commenter agrees that the IAEA standards are appropriate for international shipments, but believes that DOT and NRC regulations should also provide allowance for domestic-only applications. This would include for example, a grandfathering provision.

We believe that this rulemaking process is the appropriate forum that takes into consideration the risk-informed, performance-based aspects the commenter referenced, and that balances individual concerns with the overall lack of clarity in the ability of these packages to meet current safety standards. Therefore as discussed earlier, we have decided to allow a transition period of four years from the effective date of the rule, which is in turn set to nine months after publication of the final rule in the **Federal Register**. This will result in an effective five-year transition period from the date of the final rule publication in the **Federal Register**.

Two commenters stated that the discontinuation of DOT specification packages two years after the effective date of this rule has the potential to impact the timely remediation and closure of U.S. Department of Energy (DOE) sites and the DOE has an excellent safety record using DOT specification packages. Additionally, since significant volumes of material (9,000 packages) are presently prepared in specification packages, the commenter states that repackaging would be time consuming, very costly and would increase the risk to workers whenever it is required. Since it may take two to four years to complete the design, construction, and certification processes to replace these packages, the commenters asserted that the continued use of these packages for five years after the effective date of the rule would allow the DOE to complete many of its shipping campaigns without initiating design, certification and production of new packagings, or to do so in an orderly manner.

We agree. We believe that the two-year time frame was insufficient. We have therefore, changed the transition period to four years from the effective date of the rule, with a nine month effective date from final rule publication in the **Federal Register**. This will allow an effective five-year transition period from the date the rule is published in the **Federal Register**, which would only require a slight acceleration of remediation campaign activities.

Three commenters were concerned the separate DOT and NRC rulemaking proposals had different effective implementation dates and they encouraged DOT to work with the NRC to ensure a common effective date. We agree. We have reached consensus with the NRC to implement a four-year transition time, beginning at the effective date of the rulemakings, with a nine month effective date from final rule publication in the **Federal Register**. This change has been included throughout this final rule as appropriate.

Two commenters supported the proposal to accept the IAEA transitional requirements including the phase out of Type B specification packages and the termination of authorization of Safety Series 6 (1967) packages. The commenters stated that Specification packages and Safety Series 6 (1967) packages have not been designed and

constructed according to standards where their continued use would be consistent with the intent of the regulations. We agree, as discussed above.

Two commenters stated that an issue that is overlooked in the transition to a new regulation is the fact that recurrent training is only required once every three years. Therefore, many organizations only send their personnel to be "DOT Trained" every three years. It may therefore take three years for the shippers to recognize that there have been major changes in the regulation. The commenters recommended that serious consideration be given to reducing the time for recurrent training to one year or incorporating a three-year transition period into the proposal, consistent with these training requirements.

We do not agree. The HMR (§ 172.702(b)) states * * * "a hazmat employee who performs any function subject to the requirements of this subchapter may not perform that function unless instructed in the requirements of this subchapter that apply to that function." Our position regarding all HMR changes is that if a new regulation is adopted, or an existing regulation is changed, that relates to the function performed by a hazmat employee, that hazmat employee must be instructed in those new or revised function specific requirements without regard to the timing of the three year training cycle (Docket HM–222B, 61 FR 27169).

A commenter stated that during the transition phase when DOT Specification packagings would still be authorized for use, the proposed rule does not appear to specify the proper shipping name that would apply for fissile material shipped in a DOT specification packaging and the final rule should make clear what name should be used during transition phase.

We agree. We consider that during the transition period, when a non-fissile or fissile-excepted Type B quantity is transported domestically in a 1967 DOT Specification package or in an NRC-approved B( ) package, the proper shipping name and UN number "Radioactive material, Type B(U) package" and "UN2916" may be used. Similarly, during the transition period when a fissile Type B quantity is transported in a 1967 DOT Specification package or in an NRC-approved B( )F package, "Radioactive material, Type B(U) package, fissile" and "UN3328" may be used.

Issue 10: Other Changes

Background. We are requiring in § 173.424 that the active material in an instrument or article intended to be transported in an excepted package be completely enclosed by the non-active components. This is a requirement which appears in paragraph 517(c) of TS–R–1, and is a change from the wording in Safety Series No. 6. It is intended to enhance the safety of shipments of instruments or articles in excepted packages by making it explicit that the radioactive contents in such an instrument or article must be completely enclosed by the non-radioactive material of which the instrument or article is constructed in order to prevent release of the active contents under normal conditions of transport.

Discussion. A commenter noted that the term "completely enclosed" is not defined in the NPRM. The commenter asked for clarification regarding the exception provided in § 173.424 regarding items that are "completely enclosed" by non-radioactive components. The commenter specifically asked whether items like smoke detectors, which by necessity must have openings for smoke to enter the active volume, would qualify for this exception. The commenter went on to explain that smoke alarms contain a small amount of radioactive material, Americium-241, which is embedded in a gold foil matrix within an ionization chamber, and that the thin gold-americium foil is sandwiched between a thicker silver backing and a palladium laminate. The laminate is thick enough to completely retain the radioactive material, but thin enough to allow the alpha particles to pass.

The commenter requested that RSPA clarify in the final rule that an instrument is not required to provide an air-tight enclosure for the radiation source in order to be considered "completely enclosed." Rather, where the radioactive material is enclosed in or forms a component part of an instrument or other manufactured article where an added degree of protection is provided against escape of material in the event of an accident, such instrument or article should qualify for the exception in § 173.424.

We agree that the intent of the requirement in § 173.424 is not to exclude items such as Americium-241 smoke detectors, and the requirement that the active material be completely enclosed by non-active components is met, in the case of a smoke detector or a similar device, by the combination of the thin laminate and the positioning of the active element within the outer case, even though that case is not air-tight.

In addition to the above comment, we received numerous comments that did not lend themselves to categorization in one of the other nine issues. Therefore, we have elected to discuss these comments here.

One commenter provided a petition signed by several thousand people that called for the United States President, Vice President, Congress and all Federal, state and international regulators and legislative bodies to recapture, stop and prevent release/clearance recycling of radioactive wastes and materials into consumer products and the environment. The petition further supported regulation and isolation of radioactive wastes from nuclear power and weapons and also opposed the use of radioactive materials and wastes in consumer products and building materials including, but not limited to metals, concrete, plastics, glass, paper, wood, soil, and equipment.

The commenter's petition called on the NRC to reverse its efforts and expenditures to release radioactive wastes, to initiate a policy requiring regulatory control and isolation of all radioactive wastes, and demanded the recall of radioactive material and wastes that have been released into the marketplace. The petition also called on DOE to halt all releases of radioactive wastes and materials into the marketplace, to recapture that which has been released, and revocation of the Radioactive Recycle 2000 policy immediately. We acknowledge receipt of the comment; however the comment is not within the scope of this rulemaking.

A commenter stated the proposed rule is too confusing and complicated. We disagree. Although the regulating of radioactive materials involves a degree of technical complexity, particularly because of the need to determine quantities in terms of activity limits and potential exposures, we believe the requirements adopted in this final rule are capable of being understood and complied with. One reason we are allowing an implementation time of one year from publication of the final rule in the **Federal Register** is to allow adequate time for preparation and training for persons responsible for complying with these requirements.

Several commenters stated that over-reliance is placed on unchallenged information of the International Commission on Radiation Protection (ICRP), outdated and incomplete models, lack of information on 350 radionuclides, and a biased scientific opinion on radiation health effects. We

disagree. We believe the ICRP offers a quality and reasonably comprehensive perspective on radiation protection standards. However, during the rulemaking process we do evaluate alternative information and opinions, when submitted to us, which provide reasoned arguments.

Two commenters stated that all the proposals should be withdrawn and that we should adopt public recommendations that improve safety and security and take into account the growth of future radioactive shipments. We disagree. We believe that the proposed rulemaking will improve public safety and is based on projected levels of transportation activities, and that to restart the rulemaking issue would be a public disservice.

Several commenters were opposed to harmonization promulgated by the United Nations and the IAEA. They stated that the international standards-setting process is not democratic, the documents are not freely available, and the deliberations and negotiations are not accessible. The commenters questioned if this process meets the Federal Advisory Committee Act, the Sunshine Act, the Administrative Procedure Act, and the Open Meetings Act. One commenter requested we put interested parties on notice of impending IAEA rulemaking, and receive comments for its consideration as a participant in IAEA's rulemaking process, because neglecting the interests of U.S. stakeholders in the IAEA rulemaking process leaves DOT open to criticism for ill-informed rulemaking that is more in the nature of a legislative fiat from IAEA than a product of the democratic process.

Another commenter stated that although IAEA standards generally have good technical bases, they are consensus standards that do not necessarily consider the risk-informed, performance-based aspects of domestic regulations. Therefore, while most of the IAEA standards should be incorporated into U.S. regulations, the unique aspects of the U.S. regulations need to be considered; the IAEA standards are appropriate for international shipments, but DOT and NRC regulations should also provide allowance for domestic-only applications.

We disagree. We believe that although international agencies, such as the IAEA are not subject to the aforementioned acts, conducting the rulemaking process in accordance with 49 CFR 106, to consider incorporation of their recommendations into U.S. regulations, provides the necessary forum to comply with the Administrative Procedure Act (5 U.S.C. 553). Furthermore, the rulemaking process provides a methodology to deviate from IAEA regulations domestically, where appropriate.

Several commenters generally supported the overall intent of the proposed modifications since a uniform set of requirements for the movement of nuclear materials worldwide is in the public interest for the safe transport of these materials. However, the commenters expressed a concern regarding the slowness of the governmental rulemaking actions. Global businesses are required to comply with the regulations of many countries and many international organizations as well as those of the U.S. during these transitional times, and are therefore forced to operate to two regulatory systems, one for domestic and one for international shipments. This situation places complex demands on management systems, procedures, personnel and training, and for this reason, the commenters stated that the transition to international standards needs to be streamlined so that this impact is minimized more so than is currently the case.

One commenter noted the IAEA two-year cycle is needlessly frequent, resulting in demands on the resources of both the competent authorities and the regulated community to adapt to changes that are unwarranted as they provide little value to a segment of transportation that, based on its track record, requires no improvement. We disagree. We believe the application of the IAEA two-year revision cycle will actually result in a more timely revision process due to the fact that revisions will typically focus on far fewer issues than has been the case with the ten-year revision cycle; the historically lengthy IAEA revision process can cause several significant issues to accumulate, which can compound problems due to simultaneous implementation of new regulations covering several topics.

A commenter recommended that there be a three-year phase-in for implementation of the changes in this final rule, because of costs involved in ordering supplies in quantity, and to allow time for IP containers to be modified to meet the communication changes. We are aware that changes in the regulations may require the investment of time, money and effort. We believe that a three year transition time is too long for the implementation of most of the changes. However, in order to allow more time to make these changes we are including in this final rule a transition time of nine months from the date of publication before mandatory compliance will be required.

Several commenters stated that the term "consignment" should be clarified because in transportation in commerce the term is often considered to mean a package or group of packages offered by a consignor for transport to a single consignee and multiple consignments may be offered to a carrier simultaneously. One commenter questioned if the RSPA usage of "consignment" meant all the packages listed on a single manifest/bill of lading, offered by a single consignor at one time (even if the packages are destined for multiple consignees), or loaded onto a conveyance at a single location. Another commenter suggested the definition of "consignment" presented in ICAO 2001–2002 Section 3.1 and in IATA 2002 Appendix A is a much more workable definition, where consignment means one or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address.

Another commenter stated that "consignment" bears the connotation of all packages in a shipment. The commenter also stated that the inclusion of "load of radioactive material" needs to be better defined, because operations often require the shipment of bulk quantities of radioactive materials (*e.g.*, soil with residual radioactivity). The commenter questioned if the purpose of this statement is to limit the definition of a consignment to one bulk railcar (*e.g.*, gondola), each railcar being one consignment, as opposed to eight or more bulk railcars comprising one consignment. The commenter suggested the proposed rule is also not clear as to whether a rail car with several bulk containers (*e.g.*, 4–6 rail cars) would be defined as a single consignment or if each bulk container would be a "load." The commenter recommended that the definition of "consignment" be clarified to address shipments of bulk containers (*e.g.*, gondolas, intermodals) by rail and other transport vehicles. The definition should account for the difference in hazards from shipping a group of radioactive material packages in an aircraft to shipping several bulk containers on a single railcar and a number of gondolas of radioactive material in a single train. We agree. The definition can be clarified and we have provided a modified definition in the final rule.

A commenter disagreed with the proposed definition of "Quality Assurance" and suggested the wording should specify the use of health physicists, radiation safety officers, nuclear engineers, NRC and DOT

personnel, as well as up to date radiation detectors. We disagree. We believe the definition is adequate and should be brief, since it provides a formal meaning to the subject phrase, recognizing the definition alone is not intended to set forth the comprehensive elements of a quality assurance program.

One commenter was concerned that in some instances, the proposed DOT rules do not incorporate some important aspects of the TS–R–1 standard. A specific case is the determination of transport index (TI) in paragraph 526–527 of TS–R–1. By not including the multiplication factor for large dimension loads, the proposed rule maintains an incompatibility with the IAEA standard.

The commenter is correct in noting we have not included the subject IAEA guidance pertaining to transport index multiplication factors for large dimension loads in the U.S. regulations. There are also several other domestic variations from IAEA regulations, such as communications involving Low Specific Activity shipments and the rules for placarding White-I and Yellow-II shipments. These variations from the IAEA regulations generally result from more than one factor, such as cost/benefit analysis, risk-informed rulemaking, and stakeholder comments. We do intend, however, to continue to analyze whether the IAEA multiplication factor for large dimension loads should be made a U. S. requirement.

A commenter stated that, in the NPRM, § 173.415(d) updates the requirements reference to the new IAEA standards. However, § 173.415(d) continues to include as a requirement that, in order for foreign-made Type A packaging to be used for domestic or export shipments, the packaging must have first been "used for the import of Class 7 * * * materials." Given that the purpose of this NPRM is to "harmonize requirements of the HMR with international standards," retaining this import requirement seems to run counter to this purpose in that TS–R–1 does not have a similar requirement. The commenter requested that the requirement that the packaging first be used for the import of radioactive material be deleted, preferably for both domestic and export shipments, but at least for export shipments.

We agree that the wording in § 173.415(d) requiring that a foreign package that meets the IAEA standards for a Type A package be required to have first been used for the importation of radioactive materials before it can subsequently be used for domestic and export shipments of Class 7 (radioactive) materials, is not necessary. Therefore, in this final rule we have eliminated the requirement that the packaging must have first been used for import of radioactive material.

A commenter stated that DOT should take this opportunity to clarify the intent and understanding of the requirements of § 173.443(a)(1) and (2) by defining what is meant by "wipe efficiency." The use of word "efficiency" has been the source of confusion and misunderstanding for years in the application of § 173.443 in operations to demonstrate compliance. The proposed wording provides a better explanation of the regulatory requirements but could be improved if "efficiency," taken to be 0.10, is defined as the fraction of removable contamination that is taken up by a wipe and counted as a sample, not as the efficiency of the counting instrument used to measure the amount of activity on the wipe. The commenter stated that making this distinction between wipe efficiency and counting efficiency will eliminate the potential confusion. We agree that clarification of the term "wipe efficiency" may be beneficial and we have inserted a parenthetical definition in the subject subparagraph.

We also received numerous other comments that are outside the scope of our proposed rulemaking, and therefore were not considered in this final rule. For example, commenters stated that (1) all radioactive shipments should be on dedicated vehicles or trains; (2) all drivers should be trained on radiation hazards and security measures; (3) there should always be a second person in the cab of the vehicle during radioactive material transport; (4) radioactive material transport should always be escorted, both in front and in back of the transport vehicle; (5) radioactive material placards should read "Keep Back, Radioactive Material Transport"; (6) a DOT and NRC inspector should check every fissile material package/shipping cask as it comes into each state; (7) no air or water shipment of spent fuel should be allowed; (8) the use of commercial airlines or airports for any radioactive shipments should not be allowed; (9) packages subjected to a crush test should be able to withstand being run over by a freight train or tank; (10) radioactive material should not be on the same conveyance as animals, fish, birds, or members of the public; (11) DOT's segregation distances cause unsatisfactory exposures to crews and passengers; (12) criticized DOT's issuance of an exemption for uranyl nitrate; (13) depleted uranium should be more regulated; (14) all packages should be double packed, not just strong, tight; (15) most radioactive material shippers, handlers and emergency responders need more training, personnel, and equipment; (16) excepted packages should not be allowed if they are designed only to prevent release of active contents under normal conditions of transport, due to the possibility of surprise terrorist attacks, which are not a normal condition of transport; (17) DOT allows casks to reach staggering contamination levels by the time it reaches its destination, therefore en route decontaminations should be performed during transport; (18) fissile material packages should not be mixed with other packages; (19) transport vehicles should be equipped with side rails which cause detonation of any terrorist launched explosive prior to coming in contact with radioactive material packages; (20) women of childbearing age should not be allowed to work around any radiation source.

III. Section-by-Section Review

Part 171

Section 171.7

In the table of material incorporated by reference, we are removing the references to the DOE Uranium Hexafluoride Good Practices manual, the 1985 IAEA Regulations for the Safe Transport of Radioactive Material, Safety Series No. 6 and two ISO standard entries. We are revising the reference to the IAEA Regulations for the Safe Transport of Radioactive Material, No. TS–R–1, 1996 Edition and we are adding three new entries consisting of references to two ISO standards and a United States Enrichment Corporation Good Handling Practices for Uranium Hexafluoride.

Section 171.11

On June 21, 2001, in a final rule, published under Docket HM–215D [66 FR 33336], we added paragraphs to §§ 171.11 and 171.12 to clarify that only the current definition of radioactive material applies (*i.e.*, 70 Bq/g (0.002 microcurie/g)) when transporting a Class 7 (radioactive) material domestically. In addition, we maintained the current provisions in §§ 171.11 and 171.12, including the values for Type A packaging contents. Therefore, in § 171.11, we are removing paragraph (d)(6)(vi) that limits the Class 7 (radioactive) material to the current definition in § 173.403. As a result, offerors of radioactive material shipments by air will no longer have to satisfy either of two different definitions of Class 7 (radioactive) material, since

now both the HMR and the ICAO Technical Instructions will both use the TS–R–1 definition. To clarify that the exceptions described in § 173.422 apply to instruments or articles containing natural uranium or thorium, and empty packagings, as well as limited quantities of radioactive material, we are also changing the phrase "limited quantities" in § 171.11(d)(6)(iii) and (iv) to "excepted packages."

Section 171.12

In § 171.12, we are revising paragraphs (d) introductory text and (d)(4) to remove the reference to Safety Series No. 6, 1985 edition and replace it with TS–R–1, 1996 edition. In addition, we are removing paragraph (d)(7) that limits the Class 7 (radioactive) material definition to the current definition in § 173.403. This again will result in the use of the TS–R–1 definition of Class 7 (radioactive) material for both domestic and international shipments.

Part 172

Section 172.101

In the Hazardous Materials Table, we are revising the radioactive material (Class 7) entries consistent with new entries introduced in the UN Recommendations and IAEA's "Regulations for the Safe Transport of Radioactive Material, No. TS–R–1." In addition, we are removing those radioactive material entries that currently allow for domestic shipment only.

Section 172.203

In paragraph (d) we are removing two requirements that would become redundant upon adoption of the new proper shipping names, the previous requirement that the words "Radioactive Material" be entered on the shipping paper unless already contained in the proper shipping name, and the previous requirement that for a shipment of low specific activity material or surface contaminated objects, the appropriate group notation of LSA–I, LSA–II, LSA–II, SCO–I, or SCO–II be entered in the shipping description. In addition, we are requiring that customary units, if used, be enclosed in parentheses. Because the isotope plutonium-238 has been removed from the definition of fissile material, we are removing plutonium-238 from the list of fissile radionuclides for which the weight in grams or kilograms may be listed instead of or in addition to the activity. We are requiring that the criticality safety index be included in the shipping description for fissile material packages, and we are moving to a separate paragraph the requirement that the words "Highway route controlled quantity" be included in the shipping description for a package containing a highway route controlled quantity of Class 7 (radioactive) materials.

Section 172.310

We are revising paragraph (b) to require industrial packagings to be marked "Type IP–1," "Type IP–2," or "Type IP–3," as appropriate. In addition, we are revising paragraph (c) to remove the reference to Type B package designs, and to bring the wording into closer correspondence to that in TS–R–1. We are also redesignating paragraphs (c) and (d) as (d) and (e), and adding a new paragraph (c) to require the outside of a Type IP–2, Type IP–3 or Type A packaging to be marked with the international vehicle registration code of the country of origin of design.

Section 172.400

For fissile material packages, TS–R–1 (paragraph 218) introduced the concept of a CSI to replace the "TI for criticality control purposes," and decoupled it from the determination of the TI for such a package. The CSI must be displayed on packages of fissile material (paragraphs 544 and 545) using a new "FISSILE" label. The redefined TI is determined in the same way as the "TI for radiation control purposes" and continues to be displayed on the traditional "radioactive material" label. Therefore, we are revising the table in § 172.400 to add the new "FISSILE" label.

Section 172.402

Paragraph (d) is being revised to require each package containing fissile material, other than fissile excepted, to bear the new FISSILE label. (See discussion under § 172.400 above.)

Section 172.403

We are adding a new paragraph (e) to require each FISSILE label to be completed with the CSI. (See discussion under § 172.400 above.) In paragraph (g)(1), for LSA–I material, we are authorizing the entry of "LSA–I" on RADIOACTIVE YELLOW II and YELLOW III labels as an alternative to listing the radionuclides contained in the material. Paragraph (g)(2) is revised to require that customary units, if used, be enclosed in parentheses. Because the isotope plutonium-238 has been removed from the definition of fissile material, we are also revising paragraph (g)(2) to remove plutonium-238 from the list of fissile radionuclides for which the weight in grams or kilograms may be listed instead of or in addition to the activity.

For convenience to the reader, we are adding a new paragraph (h) to incorporate the requirements presently in § 173.448(g) pertaining to the labeling of overpacks.

Section 172.441

We are adding a new § 172.441 to identify the specification requirements for the new "FISSILE" label. (See discussion under § 172.400 above.)

Part 173

Section 173.401

We are revising paragraph (b)(2) to more accurately and succinctly reflect the present contents of paragraphs (b)(2) and (b)(3). We are adding a new paragraph (b)(3) to except from the HMR such items as thoriated metallic engine parts, depleted uranium counterweights, tritium exit signs, and similar items containing radioactive material which are an integral part of, and are routinely used in the normal operation of a transport vehicle. In addition, we are adding a new paragraph (b)(4) to expand upon those areas when the HMR would not apply by excepting from the HMR, under specific conditions Class 7 (radioactive) material in natural material and ores containing naturally occurring radionuclides, respectively. The new paragraph (b)(4) is intended to except from the HMR the majority of shipments of ores and materials that contain naturally occurring radionuclides, but that are to be used to produce materials whose benefits lie in their non-radiological qualities (such as coal, gypsum, phosphates, non-radioactive metals, *etc.*). The upper limit of 10 times the activity concentration or consignment activity thresholds assures that worker and public doses will remain small from these unregulated materials, while the exemption permits their continued use in commerce without making that use economically unfeasible.

Section 173.403

We are revising this section by removing the definitions for "Non-fixed radioactive contamination," and "Fissile material, controlled shipment," and revising the definitions for "A_1," "A_2," "Containment system," "Exclusive use," "Fissile material," "Low Specific Activity (LSA) material," "Low toxicity alpha emitters," "Maximum normal operating pressure," "Multilateral approval," "Package," "Radioactive contents," "Radioactive

material," "Special form Class 7 (radioactive) material," "Surface Contaminated Object (SCO)," "Transport Index (T)(I)," "Unilateral approval," "Unirradiated uranium," and "Uranium—natural, depleted, or enriched." New definitions for "Consignment," "Contamination," "Criticality Safety Index (CSI)," "Deuterium," "Exemption value," "Fissile material package," "Fixed radioactive contamination," "Graphite," and "Quality assurance" are added.

The following definitions are removed:

Non-fixed radioactive contamination. We are removing this definition but its essential elements will be added to the definition of "contamination" for clarity. (See discussion under the definition for contamination below.)

Fissile material, controlled shipment. We are removing this definition as part of the revision of §§ 173.457 and 173.459 of this subchapter, in order to simplify the requirements for transporting fissile material.

The following definitions are revised:

A_1. We are revising this definition for clarity.

A_2. We are revising this definition for clarity.

Containment system. We are revising this definition to be consistent with the NRC.

Exclusive use. We are revising this definition to clarify that a vehicle survey is required under certain circumstances after use.

Fissile material. We are revising this definition for consistency with TS–R–1 and to include uranium-233, uranium-235, plutonium-239, plutonium-241, or any combination of these radionuclides. We are removing Plutonium-238 from the definition of "fissile material," because plutonium-238 is only fissionable, not fissile. It refers only to the fissile radionuclides themselves and does not include the non-fissile material containing these fissile radionuclides.

Low Specific Activity (LSA) material. We are revising the definition of LSA–I to allow shipments of very low specific activity materials containing one or more of a variety of radionuclides, and to remove the present category which refers to mill tailings, contaminated earth, concrete, rubble, other debris, and activated material in which Class 7 (radioactive) material is essentially uniformly distributed and the average specific activity does not exceed 10^{-6} A_2/g.

Low toxicity alpha emitters. We are revising this definition for consistency with TS–R–1 and primarily includes physical and chemical concentrates in addition to natural uranium, depleted uranium, natural thorium, uranium-235, uranium-238, thorium-228 and thorium-230 when contained in ores; or alpha emitters with a half-life of less than 10 days.

Maximum normal operating pressure. We are revising this definition to align the HMR with the wording in TS–R–1 and 10 CFR 71.4.

Multilateral approval. We are revising this definition for clarity by adding the word "design." The Competent Authority approval for a package is actually for the package design.

Package. We are revising this definition for clarity. The definitions of each package type in § 173.403 include the requirements they must satisfy if their contents are not fissile. Therefore, we are including the caveat that if the contents are fissile, additional requirements must be satisfied. In addition, the definitions of types of packages are rearranged, to put the package types in an order more closely reflecting their increased capability to retain the contents under normal, as well as hypothetical accidental, conditions of transportation.

Radioactive contents. We are revising this definition to be consistent with TS–R–1.

Radioactive material. We are revising this definition to be consistent with TS–R–1. Currently, we use a specific activity threshold of 70 Bq/g (0.002 microcurie/g) for defining a material as radioactive for transportation purposes. The HMR applies to all radioactive materials with specific activities above this value. Therefore, radioactive materials with specific activities equal to or below this value are not regulated. The 70 Bq/g specific activity value is applied collectively for all radionuclides present in a material; *i.e.*, if a chain of radionuclides is present, the sum of the activities of all radionuclides in the chain is to be compared with 70 Bq/g. During the development of TS–R–1, it was recognized that there is no technical justification for the use of a single activity-based exemption (70 Bq/g) value for all radionuclides. As a result, it was concluded that a more rigorous technical approach would be to base radionuclide exemptions on a uniform dose basis, rather than a uniform specific activity (also known as activity concentration) basis. (Please refer to a more detailed discussion of this in Section II of this final rule under Issue No. 1.)

Special form Class 7 (radioactive) material. We are revising this definition to be consistent with TS–R–1.

Surface Contaminated Object (SCO). We are revising this definition for clarity.

Transport Index. We are revising this definition to be consistent with TS–R–1. This is the number which is used to provide control over radiation exposure and is assigned to a package, overpack or freight container, or to unpackaged LSA–I or SCO–I.

Unilateral approval. We are revising this definition by adding the word "design." The Competent Authority approval for a package is actually for the package design.

Unirradiated uranium. We are revising this definition to be consistent with TS–R–1.

Uranium—natural, depleted, or enriched. We are revising this definition for clarity. Minor word and number changes, in addition to clarifying that "natural uranium" does not refer to ores, and that all unirradiated uranium contains a small amount of uranium-234.

We are adding the following definitions:

Consignment. We are adding this definition to clarify to what total quantity of radioactive material the consignment activity exemption values are to be applied.

Contamination. We are adding this definition for consistency with TS–R–1. The definition includes the definitions for "fixed radioactive contamination" and "non-fixed radioactive contamination." The quantitative definition of contamination is in Safety Series No. 6, 1985 Edition (As Amended 1990) as well as TS–R–1. It was inadvertently omitted in the previous harmonization rulemaking (HM–169A, September 28, 1995). The consequence would be that non-radioactive materials with radioactive substances on the surface in levels below those listed in the definition for contamination would not be considered radioactive for purposes of transportation.

Criticality Safety Index (CSI). This definition is added to be consistent with TS–R–1. The introduction of the CSI is intended to simplify the representation on labels, and on shipping papers of a package's criticality hazard and its radiation hazard by using separate numbers to describe the two. Currently, the TI serves a dual role, in that for fissile packages a TI is determined for the radiation hazard, another for the criticality hazard, and then the final TI assigned to the packages is the greater of the two. The introduction of the CSI permits the use of the TI exclusively for describing the radiation hazard. This reduces the uncertainty inherent in not knowing whether the TI value is

because of one hazard or the other, and should aid shippers, carriers, and emergency responders in understanding the hazards associated with a radioactive materials package.

Deuterium. This definition is added due to the occurrence of the term in the revised language for fissile excepted material in § 173.453.

Exemption value. This definition is added to clarify that the phrase refers to the activity concentration or consignment activity thresholds above which a material would be considered sufficiently radioactive to be subject to the HMR, and to distinguish it from a DOT exemption, defined in § 171.8.

Fissile material package. This definition is added to clarify that Type AF package, Type BF package, Type B(U)F package, Type B(M)F package, or fissile material package means a fissile material packaging together with its fissile material contents.

Fixed radioactive contamination. This definition is added to be consistent with TS–R–1. (See discussion under the definition for "contamination" above.)

Graphite. This definition is added due to the occurrence of the term in the revised language for fissile excepted material in § 173.453.

Quality assurance (QA). This definition is added to be consistent with TS–R–1. We currently require evidence of a QA program for issuing Certificates of Competent Authority, but do not define it, except to indicate that a NRC approved program is acceptable, or also that adhering to §§ 173.474 and 173.475 is acceptable for export of DOT Specification packages. Therefore, the introduction of the TS–R–1 definition will clarify what we mean by a QA program, and call attention to the fact that this is something we associate with radioactive material transport.

Section 173.411

We are revising paragraph (b)(5)(ii) to correct the reference to the ISO Standard 1496. As described in the 1985 Edition of Safety Series No. 6 and in TS–R–1, the reference should be to Part 1, Cargo Containers, instead of Part 3, Tank Containers.

Section 173.415

We are removing an outdated transition statement in paragraph (a), removing Type B (*i.e.*, any Type B packaging which does not meet 1973 or later NRC or IAEA performance requirements) as an authorized Type A packaging in paragraph (c), and changing the IAEA reference from Safety Series No. 6 to TS–R–1 for Type A packagings of foreign origin in paragraph (d).

Section 173.416

In paragraphs (a) and (b) we are removing Type B (*i.e.*, any Type B packaging which does not meet 1973 or later NRC or IAEA performance requirements) as an authorized Type B packaging. We are deleting paragraphs (d), (e) and (f), and revising paragraph (c) to discontinue the use of DOT Specification 6M, 20WC and 21WC as authorized Type B packagings, and to specify that 4 years after the effective date of the final rule, these DOT Specification packages may no longer be used.

Section 173.417

We are removing paragraphs (a)(1), (a)(2), (a)(6), (b)(1) and (b)(2) to discontinue the use of DOT Specification 6L, 6M and 1A2 as authorized fissile materials packagings. We are also adding a new paragraph (c) to specify that 4 years after the effective date of the final rule, these packages may no longer be used. Tables 2, 4, and 5 are removed. Tables 3 and 6 are redesignated as Tables 2 and 3, respectively. Paragraphs (a)(3), (a)(4), (a)(5), (a)(7) and (a)(8) are redesignated as (a)(1)(i), (a)(1)(ii), (a)(1)(iii), (a)(2) and (a)(3), respectively, and (b)(3), (b)(4), and (b)(5) as (b)(1) through (b)(3). In the new paragraphs (a)(1)(iii) and (b)(2) the references to Safety Series No. 6 have been changed to No. TS–R–1. The new paragraph (a)(2) is revised to include the greater than 0.1 kg of uranium hexafluoride provision. Type B packagings are removed from the new paragraphs (a)(1)(ii), (a)(1)(iii), (b)(1) and (b)(2).

Section 173.420

We are revising § 173.420 to introduce new performance packaging requirements for packagings containing more than 0.1 kg of UF_6.

Section 173.421

We are revising paragraph (a) to indicate that an excepted package of a limited quantity of Class 7 (radioactive) material is not excepted from all marking requirements.

Section 173.422

Consistent with the new marking provisions for excepted packages containing radioactive materials in TS–R–1, we are eliminating the requirement in § 173.422(a) for a certification statement for such packages. In addition, we are adding the requirement that excepted packages be marked with the UN identification number, and removing the reference to § 173.423, since § 173.422 deals with Class 7 (radioactive) material classed as Class 7, while § 173.423 refers only to multiple hazard limited quantity Class 7 (radioactive) materials, which by § 173.2a(a) are classed in terms of the other hazard or hazards.

Section 173.424

We are revising § 173.424 to indicate that an excepted package containing a radioactive instrument or article is not excepted from all marking requirements. In addition, we are requiring that the active material in an instrument or article containing radioactive material be completely enclosed by the non-active components.

Section 173.425

We are revising all references to "table 7" to read "table 4", this is due to the combining and deleting of several tables in subpart I.

Section 173.426

We are revising § 173.426 to indicate that excepted packages of articles containing natural uranium or thorium are not excepted from all marking requirements.

Section 173.427

We are revising § 173.427 to clarify: (1) LSA/SCO transportation and packaging requirements; (2) that fissile LSA is prohibited; *i.e.*, that material containing fissile radionuclides may be classified as LSA only if it satisfies one of the sets of conditions in § 173.453 to be considered fissile-excepted material; and (3) exclusive use requirements and provisions. In addition, we are also revising this section to authorize the transportation of unpackaged LSA–I and SCO–I material, and removing the present exception for LSA material and SCO conforming to the provisions specified in 10 CFR 20.2005.

Section 173.428

We are revising § 173.428 to include a requirement for marking an empty package with the UN identification number. We are redesignating paragraphs (c), (d) and (e) as (d), (e) and (f). In addition, we are adding a new paragraph (c) to require that the outer surface of any uranium or thorium component of a radioactive materials package intended to be shipped as an empty package be covered by an inactive sheath. This is a safety improvement, and makes this requirement consistent with that in TS–R–1 for the transport of empty radioactive material packages.

Section 173.431

We are revising paragraph (b) to remove the reference to a Type B package.

Section 173.433

We are revising § 173.433 to reference the nuclide-specific exemption values, and clarify how these may be calculated for mixtures. We are also revising the wording to reflect more closely the wording in TS–R–1, and to incorporate the TS–R–1 expression for determining the limits on activities of radionuclides which may be transported in a Type A package when some of the material is in special form and some in normal form.

Section 173.435

We are replacing the present "Table of A_1 and A_2 values for radionuclides," with accompanying footnotes, with the A_1 and A_2 values and accompanying footnotes from Table I of TS–R–1. The exception to allow the domestic transport of up to 20 Ci of Mo-99 in a Type A package is retained. In addition, the Safety Series No. 6 values of A_1 and A_2 is retained for Cf-252.

Section 173.436

In accordance with our adoption of the nuclide-specific exemption values found in TS–R–1, we are adding a new § 173.436 to contain a table entitled "Exempt material activity concentrations and exempt consignment activity limits for radionuclides." This table, along with accompanying footnotes, is taken from Table I of TS–R–1.

Section 173.441

The title is revised to include exclusive use provisions. Paragraph (d) is redesignated paragraph (e). A new paragraph (d) is added in order to assemble in one location the total TI restrictions for non-exclusive use and exclusive use shipments of Class 7 (radioactive) materials.

Section 173.443

We are revising Table 11, in § 173.443 to list the true non-fixed contamination limits for the outer surfaces of packages. In addition, we are revising paragraph (a)(1) to indicate that in calculating the contamination level from the activity measured on the wipe, the true wipe efficiency must be used or a default efficiency of 0.10 may be assumed.

Section 173.447

We are revising § 173.447 to reflect the introduction of additional transportation controls based on the criticality safety index for fissile material packages.

Section 173.448

We are revising § A173.448 to remove the requirements in § 173.448(g)(1) for the labeling of overpacks and relocate them to § 172.403(h). Relocating the requirements for the labeling of overpacks to § 172.403(h) is more logical and should aid the reader.

Section 173.453

We are revising § 173.453 to be consistent with the new fissile material exceptions included in NRC rulemaking.

Section 173.457

We are simplifying the requirements for transporting fissile material packages by incorporating in § 173.457 the TS–R–1 concept of CSI and TS–R–1 CSI limits, and by eliminating the concept of "fissile material, controlled shipment," which was originally developed to control transport of Fissile Class III materials, under a now obsolete scheme for classifying fissile material packages. Because all fissile material transport is now limited by the total CSI which may be carried on a conveyance, this concept is no longer needed.

Section 173.459

We are revising § 173.459(a) to replace the reference to the criticality control transport index with the criticality safety index. With the elimination of the concept of "fissile material, controlled shipment" and the inclusion of the total TI limits in § 173.441 and total CSI limits in § 173.457, we are removing § 173.459(b) and (c), that refer to circumstances under which a shipment would become a fissile material, controlled shipment. Because the total CSI conveyance limits provide adequate safeguards against criticality, these paragraphs are no longer needed.

Section 173.645

We are revising all references to "table 12" to read "table 10", this is due to the combining and deleting of several tables in subpart I.

Section 173.469

We are revising the reference for the alternate leak test methods in paragraph (a)(4)(ii) from ISO/TR 4826–1979(E) to ISO 9978–1992(E). For clarity, we are revising the requirements in paragraph (c) pertaining to the application of leaching assessment methods. To allow for the substitution of the Class 4 impact test from ISO 2919–1980(E) for the basic impact and percussion tests, we are revising paragraph (d)(1) to include the TS–R–1 restriction that the sealed capsule and contents have a mass less than 200g.

Section 173.471

We are revising the introductory text to remove Type B as a sub-class of NRC approved packages, since the NRC no longer issues certificates for this sub-class.

Section 173.473

We are revising the introductory text to clarify the types of foreign-made packages that would require certification, and to change the reference to Safety Series No. 6 to that for No. TS–R–1.

Section 173.476

We are revising paragraph (c)(4) to specify what the required quality assurance program should cover. In addition, we are adding a new paragraph (c)(5) to require that a description of any planned pre-shipment actions for use in the consignment of special form radioactive material be included in an application for a U.S. Competent Authority Certificate for Special Form Material. The former is in Safety Series No. 6, 1985 Edition, but never included in the HMR; the latter is new to TS–R–1.

Section 173.477

We are adding a new § 173.477 to define the approval requirements for packagings containing more than 0.1 kg of UF_6.

Part 174

Section 174.700

We are revising § 174.700(b) to reflect the fact that the upper TI limit of 50 refers to both the total TI and the total CSI for non-exclusive use shipments. In addition, we are adding a new paragraph (d) to emphasize that the appropriate transport restrictions for fissile material packages apply to transport by rail. In addition, existing paragraphs (d) through (f) are redesignated (e) through (g).

Part 175

Section 175.700

We are revising paragraph (a) by adding a requirement to limit the CSI to a maximum of 3.0 for a fissile material package transported in a passenger carrying aircraft; this is necessary because under TS–R–1 the historical limitation of 3.0 TI on a passenger carrying aircraft would only limit the radiation hazard and not the criticality hazard. In addition, we are adding a new paragraph (e) to ensure that any package, overpack or consignment having a criticality safety index greater than 50 shipped by air must be transported under exclusive use.

Section 175.702

We are revising paragraph (b) to include the requirements for cargo aircraft only, based on the separate TS–R–1 limits on total transport index and total criticality safety index.

Section 175.703

We are revising paragraph (b) to reference the new location for the requirements on overpacks. Paragraph (c) is revised to replace the reference to fissile material, controlled shipment with general requirements for shipments of fissile material by air. Paragraph (e) is revised to indicate that packages with radiation levels higher than those allowed by these regulations may be transported by air under special arrangements approved by the Associate Administrator.

Part 176

Section 176.700

We are removing paragraph (c) due to the elimination of the term "fissile material, controlled shipment. Paragraphs (d) and (e) are being redesignated (c) and (d) respectively. In addition, the requirement that groups of radioactive material packages containing fissile material be separated by at least 6 m (20 feet) from all other such groups is being moved to § 176.704.

Section 176.704

We are revising § 176.704 including the section title to reflect the introduction of additional transportation controls based on the criticality safety index for fissile material packages, and the decoupling of package controls according to transport indices and criticality safety indices. We are also replacing Table III with Table IIIA to list "Transport Index Limits" and Table IIIB for the "Criticality Safety Index Limits." In addition, we are adding to this section the requirement that groups of radioactive material packages containing fissile material be separated by at least 6 m (20 feet) from all other such groups (see discussion under § 176.700).

Section 176.708

We are revising § 176.708 to provide more detailed dose rate guidance pertaining to an alternate method for determining segregation distances, in accordance with the requirements of the latest IMDG Code. We are also restricting the use of this alternate method to the case of exclusive use shipments, for which § 176.704(f) requires a radiation protection program approved by the competent authority of the flag state of the vessel.

Part 177

Section 177.842

In § 177.842, paragraph (f) is revised to remove the reference to fissile material, controlled shipments, and in paragraph (g), a reference to transport index for fissile material packages is being replaced by one to criticality safety index.

Part 178

Section 178.350

In § 178.350, paragraph (b) is being revised to remove the wording "and Radioactive Material" from the marking requirement. It is duplicative since all proper shipping names include the words "Radioactive Material." In addition, we are adding a new paragraph (c) to note that each package must comply with the marking requirement of § 178.3(a)(2) and that each DOT specification packaging must be marked with the name and address or symbol of the manufacturer.

Section 178.352

As a result of our discontinued use of DOT Specification 6L metal packagings as an authorized fissile material packaging, we are removing in its entirety § 178.352.

Section 178.354

As a result of our discontinued use of DOT Specification 6M metal packagings as an authorized Type B and fissile material packaging, we are removing in its entirety § 178.354.

Section 178.362

As a result of our discontinued use of DOT Specification 20WC wooden protective jacket as an authorized Type B packaging, we are removing in its entirety § 178.362.

Section 178.364

As a result of our discontinued use of DOT Specification 21WC wooden-steel protective overpack as an authorized Type B packaging, we are removing in its entirety § 178.364.

IV. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. The final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

In consideration of the changes in this rule, we looked to and reviewed the "Regulatory Analysis of Major Revision of 10 CFR Part 71" NUREG/CR–6713, dated March 2001 prepared for the Nuclear Regulatory Commission (NRC) in support of its related final rule. A copy of that document is available for review in this docket (RSPA–99–6283).

Potential benefits identified in this final rule include enhanced safety resulting from the consistency of domestic and international requirements for transportation of radioactive materials. In addition, the amendments should permit continued access to foreign markets by domestic shippers of radiopharmaceuticals and other radioactive materials.

The NUREG/CR–6713 analysis of regulatory amendments concerning revisions to packaging standards, including the phased elimination of certain DOT specification packagings (*e.g.*, DOT 6L, 6M, 20WC and 21WC) in favor of NRC approved packagings indicates that none of the evaluated changes (individually or collectively) are expected to result in significant economic impacts to NRC licensees. We believe the same holds true for all other shippers, *e.g.*, contractors performing work in support of the Department of Defense and the Department of Energy.

One area that has the greatest potential for substantially increased costs to shippers of radioactive materials concerns large stocks of depleted uranium hexafluoride (UF_6) stored in currently authorized packagings at three different locations. If it is eventually determined that this material should be moved off-site to one or more conversion facilities, it is likely that the current packagings will not meet the new standards. In that case the existing packages likely will be required to be overpacked in order to meet the standard for a hypothetical fire test. That action could result in a one-time cost of $9 million to $13 million to design overpacks, purchase overpacks, and purchase additional trailers with the proper tie-down locations. However, because the likely number and location of UF_6 conversion facilities is purely speculative at this time, these potential costs were not a significant factor in our determination to adopt higher standards for presently on-going shipments of UF_6. As appropriate, we could subsequently revisit the issue of packaging standards for existing packages of depleted UF_6 in a separate rulemaking docket.

B. Executive Order 13132

This rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"). This rule preempts State, local and Indian tribe requirements but does not adopt any regulation that has direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(i) The designation, description, and classification of hazardous material;

(ii) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(iii) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;

(iv) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(v) The design, manufacturing, fabricating, marking, maintenance, reconditioning, repairing, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This rule concerns the classification, packaging, marking, labeling, and handling of hazardous material, among other covered subjects and preempts any State, local, or Indian tribe requirements not meeting the "substantively the same" standard. This rule is necessary to incorporate changes already adopted in international standards. If the amendments adopted in this final rule were not made, U.S. companies, including numerous small entities competing in foreign markets, will be at an economic disadvantage. These companies would be forced to comply with a dual system of regulation. The amendments are intended to avoid this result.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if the Secretary of Transportation issues a regulation concerning any of the covered subjects, the Secretary must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption of this final rule is October 1, 2004.

C. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act, Executive Order 13272, and DOT Regulatory Policies and Procedures

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. We have determined that, while the requirements in this final rule apply to a substantial number of small entities, there will not be a significant economic impact on those small entities.

Need for the final rule. In 1958, at the request of the Economic and Social Council of the United Nations, the International Atomic Energy Agency (IAEA) undertook the development of international regulations for the safe transportation of radioactive materials. The initial regulations published by IAEA in 1961 were recommended to member states as the basis for national regulations and for application to international transportation. Most nations have since adopted the IAEA regulations as a basis for regulations governing the transportation of radioactive materials. In 1964, 1967, 1973, and 1985, IAEA published extensive revisions of these regulations, and again in 1996 as "Regulations for the Safe Transport of Radioactive Material, IAEA Safety Standards Series No. ST–1." The most recent revision, made in 2000, involved a few minor changes and a redesignation as "Regulations for the Safe Transport of Radioactive Material, IAEA Safety Standards Series No. TS–R–1" (ST–1, Revised).

In October 1968, DOT published amendments to the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) for radioactive materials which were in substantial conformance with the 1967 IAEA regulations (Docket HM–2, 33 FR 14918). RSPA updated the Hazardous Materials Regulations (HMR) in 1983 to incorporate the 1973 IAEA revision and in 1995 to incorporate the 1983 IAEA revision. RSPA has not updated the HMR to incorporate the most recent revisions to the IAEA standards. The final rule we are issuing under Docket No. HM–230 will incorporate the 1996 and 2000 IAEA revisions to its radioactive materials transportation standards, known as "TS–R–1."

The continually increasing amount of radioactive materials transported in international commerce warrants the harmonization of domestic and international transportation requirements to the greatest extent possible. Harmonization serves to facilitate international transportation while assuring the protection of people, property, and the environment. Shippers and carriers are able to train their hazmat employees in a single set of requirements for packaging, communication of hazards, handling, stowage, and the like, thereby minimizing the possibility of improperly transporting a shipment of radioactive materials because of differences in national regulations. Similarly, many shippers find that consistency in regulations for the transportation of radioactive materials aids their understanding of what is required, thereby permitting them to more easily comply with these safety regulations when shipping radioactive materials in international commerce.

Description of Actions. In this final rule, we are amending the HMR to:

—Adopt the nuclide-specific exemption activity concentrations and the nuclide-specific exemption consignment activities listed in TS–R–1 to assure continued consistency between domestic and international regulations for the basic definition of radioactive material;

—Provide an exception in the HMR that certain naturally occurring radioactive materials would not be subject to the requirements of the HMR so long as their specific activities do not exceed 10 times the activity concentration exemption values;

—Incorporate the TS–R–1 changes in the A1 and A2 values into the HMR;

—Adopt the new proper shipping names and UN identification numbers, except for those referring to Type C packages, to fissile LSA material and to fissile SCOs;

—Require, if customary units are used, that the appropriate quantity and customary units be placed within

parentheses positioned after the original quantity expressed in the International System of Units (SI units);
—Adopt the use of the Criticality Safety Index (CSI) to refer to what was formerly the criticality control transport index, and to restrict the use of the concept of transport index (TI) to a number derived purely from the maximum radiation level at one meter from the package;
—Require the new fissile label be placed on each fissile material package, and that the CSI for that package be noted on the fissile label;
—Adopt the requirement that excepted packages be marked with the UN identification number, that industrial packagings be marked with the package type, and that Type IP–2 and IP–3 industrial packages and Type A packages be marked with the international vehicle registration code of the country of origin of packaging design;
—Remove some former requirements that would become redundant upon adoption of the new proper shipping names, such as the requirement that the shipping description contain the words "Radioactive Material" unless those words are included in the proper shipping name;
—Remove plutonium-238 (Pu-238) from the definition of fissile material and remove the reference to Pu-238 in the list of fissile radionuclides for which the weight in grams or kilograms may be listed instead of or in addition to the activity, in the shipping paper or radioactive label description of the radioactive contents of a package;
—Adopt a definition of contamination, and include an authority to transport unpackaged LSA material and SCO, and an authority to use qualified tank containers, freight containers and metal intermediate bulk containers as industrial packagings, types 2 and 3 (IP–2 and IP–3);
—Adopt the new class of LSA–I material, consisting of radioactive material in which the activity is distributed throughout and the estimated average specific activity does not exceed 30 times the activity concentration exemption level, and to remove the present category referring to mill tailings, contaminated earth, concrete, rubble, other debris, and activated material that is essentially uniformly distributed, with specific activity not exceeding 10^{-6} A_2/g;
—Incorporate the TS–R–1 changes for packagings containing more than 0.1 kg of uranium hexafluoride (UF_6);
—Require UF_6 packagings to meet the pressure, drop and thermal test requirements, to prohibit the use of pressure relief devices, and to certify the packagings in accordance with TS–R–1 requirements;
—Revise § 173.453 to reflect the NRC "fissile material exemption provisions," to remove the definition of "fissile material, controlled shipment," and to revise §§ 173.457 and 173.459 to remove the references to "fissile material, controlled shipment" and to base requirements for non-exclusive use and exclusive use shipments of fissile material packages on TS–R–1 package and conveyance CSI limits;
—Accept the IAEA transitional requirements and begin the phase out of packages satisfying the 1967 IAEA requirements, including DOT specification packages;
—Prohibit the manufacture of all Type B specification packages conforming to Safety Series No. 6 (1967) as of the effective date of this rule, while allowing continued use of these packages for three years after the effective date of this rule; and
—Add a requirement that the active material in an instrument or article intended to be transported in an excepted package be completely enclosed by the non-active components.

Identification of potentially affected small entities. Businesses likely to be affected by the final rule are those that ship or transport radioactive materials such as radiopharmaceuticals; radioisotopes; radiography devices; research and industrial sources, including gauges containing radioactive materials for measuring levels, thickness, and density; waste contaminated with low levels of radioactivity from industrial, medical, and electricity-generating facilities; and new and used nuclear power plant fuel.

There are 103 licensed nuclear power plants in the United States; these 103 plants are operated by 41 companies. In addition, there are 750 shippers and carriers registered with RSPA in accordance with 49 CFR Part 107 who say that they ship or transport large quantities of radioactive materials in a single package. There are also many thousands more persons who ship or transport smaller amounts of radioactive material. About 3 million packages of radioactive materials are shipped each year; the vast majority are radiopharmaceuticals and radioisotopes used in medical applications.

Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of "small business" has the same meaning as under the Small Business Act (the Act). Since no such special definition has been established, we employ the thresholds published by SBA for industries subject to the HMR under the Act the 41 companies operating licensed nuclear power plants in the United States are not small businesses because the electric output of each company exceeds the 4-million-megawatts-per-year threshold established by SBA. Of the 750 shippers and carriers registered with RSPA under 49 CFR Part 107, approximately 71 percent "self-identify" as small businesses using the SBA criteria. NRC indicates that 15 companies (12%) of the 127 quality assurance programs licensed in accordance with NRC requirements, are small entities. Based on data compiled by the U.S. Census Bureau in 1977, we believe that approximately 90 percent of firms that ship or transport smaller amounts of radioactive materials are small businesses.

We believe that most revisions to the HMR adopted in this final rule will result in an overall net benefit as measured by increased transportation efficiencies, reduced compliance costs, and decreases in exposure risks for transportation workers and the general public. See "Regulatory Analysis of Major Revision of 10 CFR Part 71" prepared by the Nuclear Regulatory Commission and included in the HM–230 rulemaking docket for a detailed discussion of the costs and benefits of the specific provisions of the final rule.

The greatest impact on small entities that ship or transport radioactive materials concerns the revised requirements for hazard communication—reformatting shipping papers and package markings to reflect revised hazardous materials descriptions and proper shipping names, marking the "UN" number on excepted packages of Class 7 materials, and a new labeling requirement to communicate the criticality safety index of packages containing fissile materials. These amendments will necessitate modifications to the business procedures of both shippers and carriers and will require retraining of employees, but are not expected to adversely affect on core business operations. Moreover, these revisions will improve the accuracy of the shipping descriptions applicable to specific radioactive materials, providing for a more accurate and complete indication of the hazards related to a specific shipment. Overall, these revisions will result in improved hazard communication, thereby enabling transportation workers and emergency

response personnel to quickly and efficiently identify hazards and mitigate potential risks to the public and the environment.

Several commenters to the notice of proposed rulemaking published April 30, 2002 suggest that, for one segment of the industry, the potential impacts of the proposed regulatory changes on small businesses could be significant. These commenters are concerned about the proposals in the NPRM that would eliminate the use of all packagings designed to IAEA standards in effect prior to 1973, including packages built to current DOT specifications for which no NRC approval is now required, in favor of packagings designed and constructed in accordance with the more recent IAEA standards and approved under new Certificates of Compliance issued by NRC.

The TS–R–1 standard on which this final rule is based includes provisions for the continued use of packages and special form sources previously approved in accordance with the 1973 and 1985 editions of the IAEA regulations. However, TS–R–1 does not provide transitional provisions for packages approved under the 1967 edition of the IAEA regulations. NRC has stated that packages approved under the 1967 edition lack the safety enhancements that were incorporated into later editions of the IAEA standards; for example, packages must now be made more leak resistant and must conform to applicable NRC quality assurance requirements. NRC staff believe that the designs for 1967-based packages will fall into one of five categories: (1) Package designs that may meet current safety standards with no modifications but have until now not been submitted to the NRC for review against these standards; (2) package designs that can be shown to meet current safety standards after relatively minor design changes; (3) spent fuel casks certified to the 1967 standards, for which stringent quality assurance requirements for design and fabrication did apply; (4) package designs that cannot be shown to meet current safety standards; and (5) packages for which the safety performance of the package design under the current safety standards is not known. NRC staff believe that it is appropriate to phase out use of designs that fall into the last two categories.

DOT Specification 6L, 6M, 20WC and 21WC packages are packages that have not been shown to satisfy packaging requirements of the 1973, 1985, or 1996 IAEA radioactive material transport regulations. In accordance with the decision by the NRC to phase out packages approved against the 1967 IAEA Regulations, and recognizing that under the Memorandum of Understanding between the two agencies the NRC has cognizance over domestic use of Type B and fissile material packages, we proposed in our NPRM that as of the effective date of this final rule no new manufacture of packages of these types be allowed, and that all use of these packages cease as of two years following the effective date of this final rule.

Among the specific packagings at issue are those used to transport special form Type B shipments of radioactive material. They are used for equipment, such as calibrators and irradiators, that contain Type B quantities of cobalt-60 or cesium-137 sources. This equipment is used by nuclear power plants, universities, hospitals and blood banks, and in private and government research facilities. Most of the packagings used to transport the equipment are designed to qualify under DOT regulations as Type 7A packages, which, when fitted with a metal jacket and placed in a DOT Specification 20WC overpack, are authorized for the transportation of Type B shipments of radioactive materials in special form. Other types of packagings that would be eliminated include containers used to transport iridium-192 and nuclear isotopes for medical or industrial use. Commenters note that these packagings have an excellent safety history.

The commenters state that the proposed prohibition on the use of these 20WC containers would require companies to apply to NRC to requalify existing containers to the new IAEA standards or construct new containers that meet the IAEA standards. One commenter suggests that he would incur costs of at least $500,000 to obtain regulatory approval from NRC for each requalified or newly constructed 20WC packaging and that his costs for replacing currently authorized 20WC packagings could total from $2 million to $8 million. This commenter also asserts that total industry costs to upgrade or replace 20WC packagings could exceed $100 million. Another commenter who ships iridium-192 using a DOT specification packaging states that his costs of compliance with the new regulations will be well over $1 million. A third commenter estimates that replacing the DOT specification packages currently in use with newly-designed and NRC-approved packagings will cost around $500,000. Two of these commenters state that the costs of replacing or requalifying currently authorized DOT specification packagings could well exceed their companies' financial capabilities.

NRC estimates of the potential costs associated with obtaining regulatory approvals are significantly less than the costs suggested by commenters. For package designs that may meet current safety standards without design modifications, the cost of obtaining NRC certification against the TS–R–1 standards would range from $30,000 to $70,000 per design. For package designs that may need minor design changes to meet current safety standards, the cost of obtaining NRC certification against the TS–R–1 standards would range from $40,000 to $190,000 per design. To replace packagings that cannot be shown to meet the TS–R–1 standards, the cost to design, construct, and obtain NRC approval for the new designs would range from $350,000 to $440,000 per new design.

It is possible to gain NRC approval for a Type B packaging with a range of contents and/or a range of dimensions, so long as the applicant demonstrates that the "worst case" configuration(s) will satisfy the performance requirements. On this basis, if, as one commenter suggests, there are currently between 50 to 100 20WCs containers in use, it seems reasonable to assume that no more than 10 to 20 replacement packages (packages that would have to be designed from scratch, tested, evaluated, reviewed and approved by the NRC) would need to be approved by NRC to transport the types of shipments made in 20WCs today.

Assuming conservatively, therefore, that on the order of 10 to 20 new package designs for the 20WC would need to be approved by the NRC, that from 50 to 100 replacements for the 20WC packagings would need to be manufactured, using typical cost estimates from the NRC of $300,000 to $390,000 for design, testing, and licensing, manufacturing costs of $50,000 per manufactured package, and a commenter's estimate of $30,000 per package for depreciation costs, we believe that a conservative estimate of the industry-wide cost can be projected as follows:

Cost of design, testing and licensing of new designs: $3,000,000 to $7,800,000
Costs of construction of new overpacks: $2,500,000 to $5,000,000
Loss of value of existing overpacks: $1,500,000 to $3,000,000
Estimated total cost to industry: $7,000,000 to $15,800,000

Over the long term, the benefits of an internationally-harmonized regulatory system will exceed the costs associated with implementing the system. Uniform

regulations facilitate compliance and thus enhance overall safety—companies and their employees must know and understand a single set of regulatory requirements rather than multiple requirements applicable to multiple jurisdictions. Carriers are able to train their employees in a single set of requirements for the classification, packaging, communication of hazards, handling, stowage, and the like, thereby minimizing the possibility of improperly transporting a shipment of hazardous materials because of differences in national regulations. Similarly, many shippers find that consistency in regulations for the transportation of hazardous materials aids their understanding of what is required, thereby permitting them to more easily comply with these safety regulations. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international transportation requirements to the greatest extent possible. Harmonization serves to facilitate international transportation while assuring the protection of people, property, and the environment.

Commenters recommend that the final rule provide for a "substantially" longer transition time than the two-year phase-out period proposed in the April 30, 2002 NPRM. We note in this regard that in 1996, IAEA first published that 1967 packagings would be discontinued from use. Thus, persons using such packagings have been on notice since 1996 that new packagings would be required. Nonetheless, we agree with commenters that those companies that may incur increased compliance costs as a result of the elimination of currently authorized packagings for the transportation of certain radioactive materials should be provided with more time to plan for and transition to the new system. Therefore, in this final rule, we are permitting continued use of currently authorized DOT specification 6L, 6M, 20WC, and 21WC packagings for a period of 4 years after the effective date of the final rule; since the effective date of this final rule is October 1, 2004, the industry will actually have a 5-year period to transition to the new packaging system. The 5-year transition period will provide companies with sufficient time to plan and implement the changes in an orderly and deliberate fashion and will help to minimize the costs that will be incurred as a result of the transition. Based on a 5-year transition period and using the cost estimates detailed above, we estimate that total industry costs to develop and obtain approval for packagings to replace the 1967 packagings currently in use will range from $1,400,000 to $3,160,000 per year (undiscounted).

As noted above, of the 127 quality assurance programs registerd with NRC, 15, or 12 percent, are small entities. NRC expects that of these 15 small entities, only 2 or 3 will be adversely affected by the requirements in this final rule applicable to 1967 packagings, based on the nature of the companies' businesses and day-to-day operations. Moreover, our April 30, 2002 NPRM noted that our preliminary assessment of the impact of the IAEA revisions on small business was subject to modification depending on comments received and encouraged commenters to address the potential economic impacts of the proposals. Out of a total of about 150 comments, we received only three comments from persons identifying themselves as small businesses.

Reporting and recordkeeping requirements. This final rule includes no new reporting or recordkeeping requirements.

Related Federal rules and regulations. As in past rulemakings to incorporate updates of the international regulations into the HMR, we are working in close cooperation with NRC in the development of this rulemaking. Currently, DOT and NRC jointly regulate the transportation of radioactive material in the United States in accordance with a July 2, 1979 Memorandum of Understanding (MOU; 44 FR 38690). In accordance with this MOU:

1. DOT regulates both shippers and carriers and has issued:

- Packaging requirements;
- Communication requirements for:

—Shipping paper contents,
—Package labeling and marking requirements, and
—Vehicle placarding requirements;

- Training and emergency response requirements; and
- Highway routing requirements.

2. NRC requires its licensees to satisfy requirements to protect public health and safety and to assure the common defense and security, and:

- Certifies Type B and fissile material package designs and approves package quality assurance programs for its licensees;
- Provides technical support to DOT and works with DOT to ensure consistency with respect to the transportation of radioactive materials; and
- Conducts inspections of licensees in accordance with DOT requirements.

This rulemaking is being coordinated by RSPA with NRC to ensure that consistent regulatory standards are maintained for radioactive material transportation regulations, and to ensure coordinated publication of rules by both agencies.

Alternate proposals for small businesses. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes. In the case of radioactive materials transportation, it is not possible to establish exceptions or differing standards and still accomplish the objectives of Federal hazmat law.

This final rule was developed under the assumption that small businesses make up the overwhelming majority of entities that will be subject to its provisions, particularly regarding the phase-out of currently authorized DOT specification packagings for the transportation of certain types of radioactive material. Thus, we considered how to minimize expected compliance costs as we developed this final rule. As an accommodation to small businesses, the final rule permits continued use of currently authorized DOT specification packagings for a period of 4 years following the final rule's effective date, or effectively 5 years from the date of publication of this final rule. This extended transition period will provide companies with sufficient time to plan and implement the changes in an orderly and deliberate fashion and will help to minimize the costs that will be incurred as a result of the transition.

Conclusion. In consideration of the fact that a limited number of small entities will be affected by the provisions of this final rule and on the basis of the analysis of regulatory amendments prepared by NRC in support of its associated final rule, I hereby certify that, while this final rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities.

This final rule has been developed in accordance with Executive Order 13272 ("Proper Consideration of Small Entities in Agency Rulemaking") and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

E. Paperwork Reduction Act

RSPA has a current information collection approval under OMB No. 2137–0510, Radioactive (RAM) Transportation Requirements, with

15,270 burden hours and $139,895.60 annual cost for burden. This final rule identifies information collection that RSPA submitted to OMB for approval based on requirements in the proposed rule. OMB approved the information collection on April 24, 2003. The approved information collection and recordkeeping burden is as follows:

OMB No.: 2137–0510.

Number of Respondents: 3,817.

Total Annual Responses: 21,519.

Total Annual Burden Hours: 15,270.

Total Annual Burden Cost: $139,895.60.

Requests for a copy of the information collection should be directed to Deborah Boothe, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8102, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $100 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

The NRC prepared an environmental assessment entitled: "Environmental Assessment (EA) of Major Revision to Packaging and Transportation of Radioactive Material Regulations", Final Report, March 2002, on its proposed rule which addresses issues also raised in this rulemaking. On the basis of this EA, we find that there are no significant environmental impacts associated with this final rule. A copy of the environmental assessment prepared by the NRC is available for review in the docket.

I. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Motor carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

■ In consideration of the foregoing, 49 CFR Chapter I, Subchapter C is amended to read as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

■ 1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 2. In § 171.7, in paragraph (a)(3), the table is amended as follows:

■ a. Under the entry "Department of Energy (USDOE)," the entry for "USDOE, ORO 651-Uranium Hexafluoride; A Manual of Good Practices, Revision 6, 1991 edition" is removed;

■ b. Under the entry "International Atomic Energy Agency (IAEA)," the entries "IAEA, Regulations for the Safe Transport of Radioactive Material Safety Series No. 6, 1985 Edition (As Amended 1990); Including 1985 Edition (Supplemented 1986 and 1988)" and "IAEA, Regulations for the Safe Transport of Radioactive Material, No. TS–R–1, 1996 Edition" are removed and a new entry "IAEA, Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS–R–1 (ST–1, Revised)" is added in alphabetical order;

■ c. Under the entry "International Organization for Standardization," the entries for "ISO/TR 4826–1979(E)–Sealed radioactive sources—Leak test methods" and "ISO 1496–3–1995(E)—Series 1 Freight Containers—Specification and Testing—Part 3: Tank Containers for Liquid, Gases and Pressurized Dry Bulk" are removed and two new entries "ISO 1496–1: 1990(E)—Series 1 freight containers—Specification and testing, Part 1: General cargo containers" and "ISO 9978:1992(E)—Radiation protection—Sealed radioactive sources—Leakage test methods, February 15, 1992, First Edition" are added in alpha-numeric order; and

■ d. A new entry for "United States Enrichment Corporation, Inc. (USEC) is added in appropriate alpha-numeric order.

The revisions and additions read as follows:

§ 171.7 Reference material.

(a) Matter incorporated by reference—

* * *

(3) Table of material incorporated by reference. * * *

Source and name of material	9 CFR reference
* * * * * * *	
International Atomic Energy Agency (IAEA) * * *	
IAEA, Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS–R–1 (ST–1, Revised)	171.12, 173.415, 173.416, 173.417, 173.473
* * * * * * *	
International Organization for Standardization * * *	
* * * * * * *	
ISO 1496—1: 1990(E)—Series 1 freight containers—Specification and testing, Part 1: General cargo containers. Fifth Edition, (August 15, 1990)	173.411
* * * * * * *	
ISO 9978:1992(E)—Radiation protection—Sealed radioactive sources—Leakage test methods. First Edition, (February 15, 1992)	173.469
* * * * * * *	
United States Enrichment Corporation, Inc. (USEC):	
USEC Inc., 6903 Rockledge Drive, Bethesda, MD 20817.	
USEC–651—Good Handling Practices for Uranium Hexafluoride, Revision 8, January 1999	173.417

* * * * *

■ 3. In § 171.11, paragraph (d)(6)(vi) is removed and paragraphs (d)(6)(iii) and (d)(6)(iv) are revised to read as follows:

§ 171.11 Use of ICAO Technical Instructions.

* * * * *

(d) * * *

(6) * * *

(iii) Except for excepted packages of Class 7 (radioactive) materials, the provisions of §§ 172.204(c)(4), 173.448(e), (f) and (g)(3) of this subchapter apply.

(iv) Excepted packages of radioactive materials must meet the provisions of §§ 173.421, 173.424, 173.426 or 173.428 of this subchapter, as appropriate.

* * * * *

■ 4. In § 171.12, paragraph (d) is revised to read as follows:

§ 171.12 Import and export shipments.

* * * * *

(d) *Use of International Atomic Energy Agency (IAEA) regulations for Class 7 (radioactive) materials.* Class 7 (radioactive) materials being imported into or exported from the United States, or passing through the United States in the course of being shipped between places outside the United States, may be offered and accepted for transportation when packaged, marked, labeled, and otherwise prepared for shipment in accordance with IAEA "Regulations for the Safe Transport of Radioactive Material," No. TS–R–1 1996 edition (IBR, see § 171.7), if—

(1) Highway route controlled quantities (see § 173.403 of this subchapter) are shipped in accordance with §§ 172.203(d)(4), 172.507 and 173.22(c) of this subchapter;

(2) For fissile materials and Type B packages, the competent authority certification and any necessary revalidation is obtained from the appropriate competent authorities as specified in §§ 173.471, 173.472 and 173.473 of this subchapter and all requirements of the certificates and revalidations are met;

(3) Type A package contents are limited in accordance with § 173.431 of this subchapter;

(4) The country of origin for the shipment has adopted, No. TS–R–1 of the IAEA "Regulations for the Safe Transport of Radioactive Material," 1996 edition;

(5) The requirements of § 173.448 are fulfilled, when applicable; and

(6) Shipments comply with the requirements for emergency response information prescribed in subpart G of part 172 of this subchapter.

* * * * *

PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

■ 5. The authority citation for part 172 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 6. In § 172.101, the Hazardous Materials Table is amended by removing and revising, in appropriate alphabetical sequence, the following entries to read as follows:

§ 172.101 Purpose and use of hazardous materials table.

* * * * *

§ 172.101 HAZARDOUS MATERIALS TABLE

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification Nos.	PG	Label codes	Special provisions (§ 172.102)	(8) Packaging (§ 173. * * *)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	* * *		*		*		*	*		*			
	[REVISE:]												
	Radioactive material, excepted package—articles manufactured from natural uranium or depleted uranium or natural thorium.	7	UN2909		None		422, 426	422, 426	422, 426			A	
	* * *		*		*		*	*		*			
	Radioactive material, excepted package—empty packaging.	7	UN2908		Empty		422, 428	422, 428	422, 428			A	
	* * *		*		*		*	*		*			
	Radioactive material, excepted package—instruments or articles.	7	UN2911		None		422, 424	422, 424				A	
	* * *		*		*		*	*		*			
	Radioactive material, low specific activity (LSA–I) *non fissile or fissile-excepted.*	7	UN2912		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
	Radioactive material, low specific activity (LSA–II) *non fissile or fissile-excepted.*	7	UN3321		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
	Radioactive material, low specific activity (LSA–III) *non fissile or fissile excepted.*	7	UN3322		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
	* * *		*		*		*	*		*			
	Radioactive material, surface contaminated objects (SCO–I or SCO–II) non fissile or fissile-excepted.	7	UN2913		7	A56	421, 422, 428.	427	427			A	95
	Radioactive material, transported under special arrangement, *non fissile or fissile excepted.*	7	UN2919		7	A56, 139						A	95, 105
	Radioactive material, transported under special arrangement, fissile.	7	UN331		7	A56,139						A	95,105
	Radioactive material, Type A package, fissile *non-specdial form.*	7	UN3327		7	A56, W7, W8	453	417	417			A	95, 105, 131
	Radioactive material, Type A package *non-special form, non fissile or fissile-excepted.*	7	UN2915		7	A56, W7, W8		415	415			A	95, 130
	Radioactive material, Type A package, special form *non fissile or fissile-excepted.*	7	UN3332		7	A56, W7, W8		415, 476	415, 476			A	95
	Radioactive material, Type A package, special form, fissile.	7	UN3333		7	A56, W7, W8	453	417, 476	417, 476			A	95, 105
	Radioactive material, Type B(M) package, fissile	7	UN3329		7	A56	453	417	417			A	95, 105
	Radioactive material, Type B(M) package *non fissile or fissile-excepted.*	7	UN2917		7	A56		416	416			A	95, 105
	Radioactive material, Type B(U) package, fissile	7	UN3328		7	A56	453	417	417			A	95, 105
	Radioactive material, Type B(U) package *non fissile or fissile-excepted.*	7	UN2916		7	A56		416	416			A	95, 105
	Radioactive material, uranium hexafluoride *non fissile or fissile-excepted.*	7	UN2978		7, 8		423	420, 427	420, 427			A	95, 132
	* * *		*		*		*	*		*			
	[REMOVE:]												
D	Radioactive material, excepted package—articles manufactured from natural or depleted uranium or natural thorium.	7	UN2910		None		422, 426	422, 426	422, 426			A	
D	Radioactive material, excepted package—empty package or empty packaging.	7	UN2910		empty		428	428	428			A	

D	Radioactive material, excepted package—instruments or articles.	7	UN2910		None		422, 424	422, 424	422, 424			A	
D	Radioactive material, fissile, n.o.s	7	UN2918		7	A56	453	417	417			A	95, 105
D	Radioactive material, low specific activity, n.o.s. or Radioactive material, LSA, n.o.s..	7	UN2912		7	A56, T5, TP4	421, 428	427	427			A	95, 129
D	Radioactive material, n.o.s	7	UN2982		7	A56	421, 428	415, 416	415, 416			A	95
D	Radioactive material, special form, n.o.s	7	UN2974		7	A56	421, 424	415, 416	415, 416			A	95
D	Radioactive material, surface contaminated object or Radioactive material SCO.	7	UN2913		7	A56	421, 424, 426.	427	427			A	95
D	Thorium metal, pyrophoric	7	UN2975		7, 4.2	A56	None	418	None			D	95
D	Thorium nitrate, solid	7	UN2976		7, 5.1		None	419	None	Forbidden	15 kg	A	95
D	Uranium hexafluoride, *fissile excepted or non-fissile*	7	UN2978		7, 8		423	420, 427	420, 427			A	95, 132
D	Uranium hexafluoride, fissile (with more than 1 percent U–235).	7	UN2977		7, 8		453	417, 420	417, 420			A	95, 132
D	Uranium metal, pyrophoric	7	UN2979		7, 4.2	A56	None	418	None			D	95
D	Uranyl nitrate hexahydrate solution	7	UN2980		7, 8		421, 427	415, 416, 417.	415, 416, 417.			D	95
D	Uranyl nitrate, solid	7	UN2981		7, 5.1		None	419	None	Forbidden	15 kg	A	95

■ 7. In § 172.203, paragraph (d) is revised to read as follows:

§ 172.203 Additional description requirements.

* * * * *

(d) *Radioactive material.* The description for a shipment of a Class 7 (radioactive) material must include the following additional entries as appropriate:

(1) The name of each radionuclide in the Class 7 (radioactive) material that is listed in § 173.435 of this subchapter. For mixtures of radionuclides, the radionuclides that must be shown must be determined in accordance with § 173.433(f) of this subchapter. Abbreviations, *e.g.*, "^{99}Mo," are authorized.

(2) A description of the physical and chemical form of the material, if the material is not in special form (generic chemical description is acceptable for chemical form).

(3) The activity contained in each package of the shipment in terms of the appropriate SI units (*e.g.*, Becquerels (Bq), Terabecquerels (TBq), etc.). The activity may also be stated in appropriate customary units (Curies (Ci), milliCuries (mCi), microCuries (uCi), etc.) in parentheses following the SI units. Abbreviations are authorized. Except for plutonium-239 and plutonium-241, the weight in grams or kilograms of fissile radionuclides may be inserted instead of activity units. For plutonium-239 and plutonium-241, the weight in grams of fissile radionuclides may be inserted in addition to the activity units.

(4) The category of label applied to each package in the shipment. For example: "RADIOACTIVE WHITE-I."

(5) The transport index assigned to each package in the shipment bearing RADIOACTIVE YELLOW-II OR RADIOACTIVE YELLOW-III labels.

(6) For a package containing fissile Class 7 (radioactive) material:

(i) The words "Fissile Excepted" if the package is excepted pursuant to § 173.453 of this subchapter; or otherwise

(ii) The criticality safety index for that package.

(7) For a package approved by the U.S. Department of Energy (DOE) or U.S. Nuclear Regulatory Commission (NRC), a notation of the package identification marking as prescribed in the applicable DOE or NRC approval (see § 173.471 of the subchapter).

(8) For an export shipment or a shipment in a foreign made package, a notation of the package identification marking as prescribed in the applicable International Atomic Energy Agency (IAEA) Certificate of Competent Authority which has been issued for the package (see § 173.473 of the subchapter).

(9) For a shipment required by this subchapter to be consigned as exclusive use:

(i) An indication that the shipment is consigned as exclusive use; or

(ii) If all the descriptions on the shipping paper are consigned as exclusive use, then the statement "Exclusive Use Shipment" may be entered only once on the shipping paper in a clearly visible location.

(10) For the shipment of a package containing a highway route controlled quantity of Class 7 (radioactive) materials (see § 173.403 of this subchapter) the words "Highway route controlled quantity" or "HRCQ" must be entered in association with the basic description.

* * * * *

■ 8. Section 172.310 is revised to read as follows:

§ 172.310 Class 7 (radioactive) materials.

In addition to any other markings required by this subpart, each package containing Class 7 (radioactive) materials must be marked as follows:

(a) Each package with a gross mass greater than 50 kg (110 lb) must have its gross mass including the unit of measurement (which may be abbreviated) marked on the outside of the package.

(b) Each industrial, Type A, Type B(U), or Type B(M) package must be legibly and durably marked on the outside of the packaging, in letters at least 13 mm (0.5 in) high, with the words "TYPE IP–1," "TYPE IP–2," "TYPE IP–3," "TYPE A," "TYPE B(U)" or "TYPE B(M)," as appropriate. A package which does not conform to Type IP–1, Type IP–2, Type IP–3, Type A, Type B(U) or Type B(M) requirements may not be so marked.

(c) Each package which conforms to an IP–1, IP–2, IP–3 or a Type A package design must be legibly and durably marked on the outside of the packaging with the international vehicle registration code of the country of origin of the design. The international vehicle registration code for packages designed by a United States company or agency is the symbol "USA."

(d) Each package which conforms to a Type B(U) or Type B(M) package design must have the outside of the outermost receptacle, which is resistant to the effects of fire and water, plainly marked by embossing, stamping or other means resistant to the effects of fire and water with a radiation symbol that conforms to the requirements of Appendix B of this part.

(e) Each Type B(U), Type B(M) or fissile material package destined for export shipment must also be marked "USA" in conjunction with the specification marking, or other package certificate identification. (See §§ 173.471, 173.472, and 173.473 of this subchapter.)

■ 9. In § 172.400, in paragraph (b), the table is amended by adding immediately after the entry for "7 RADIOACTIVE YELLOW-III", the following entry to read as follows:

§ 172.400 General labeling requirements.

* * * * *

(b) * * *

Hazard class or division	Label name	Label design or section reference
* * * * *	*	*
7 (fissile radioactive material; see § 172.402)	FISSILE	172.441
* * * * *	*	*

* * * * *

■ 10. In § 172.402, paragraph (d) is revised to read as follows:

§ 172.402 Additional labeling requirements.

* * * * *

(d) *Class 7 (Radioactive) Materials.* Except as otherwise provided in this paragraph, each package containing a Class 7 material that also meets the definition of one or more additional hazard classes must be labeled as a

Class 7 material as required by § 172.403 and for each additional hazard.

(1) For a package containing a Class 7 material that also meets the definition of one or more additional hazard classes, whether or not the material satisfies § 173.4(a)(1)(iv) of this subchapter, a subsidiary label is not required on the package if the material conforms to the remaining criteria in § 173.4 of this subchapter.

(2) Each package or overpack containing fissile material, other than fissile-excepted material (see § 173.453 of this subchapter) must bear two FISSILE labels, affixed to opposite sides of the package or overpack, which conforms to the figure shown in § 172.441; such labels, where applicable, must be affixed adjacent to the labels for radioactive materials.

* * * * *

■ 11. In § 172.403, a new paragraph (e) is added, paragraph (g) is amended by revising paragraphs (g)(1), (g)(2), and (g)(3), and a new paragraph (h) is added to read as follows:

§ 172.403 Class 7 (radioactive) materials.

* * * * *

(e) *FISSILE label.* For packages required in § 172.402 to bear a FISSILE label, each such label must be completed with the criticality safety index (CSI) assigned in the NRC or DOE package design approval, or in the certificate of approval for special arrangement or the certificate of approval for the package design issued by the Competent Authority for import and export shipments. For overpacks and freight containers required in § 172.402 to bear a FISSILE label, the CSI on the label must be the sum of the CSIs for all of the packages contained in the overpack or freight container.

* * * * *

(g) * * *

(1) *Contents.* Except for LSA–I material, the names of the radionuclides as taken from the listing of radionuclides in § 173.435 of this subchapter (symbols which conform to established radiation protection terminology are authorized, *i.e.*, ^{99}Mo, ^{60}Co, *etc.*). For mixtures of radionuclides, with consideration of space available on the label, the radionuclides that must be shown must be determined in accordance with § 173.433(f) of this subchapter. For LSA–I material, the term "LSA–I" may be used in place of the names of the radionuclides.

(2) *Activity.* The activity in the package must be expressed in appropriate SI units (*e.g.*, Becquerels (Bq), Terabecquerels (TBq), *etc.*). The activity may also be stated in appropriate customary units (Curies (Ci), milliCuries (mCi), microCuries (uCi), *etc.*) in parentheses following the SI units. Abbreviations are authorized. Except for plutonium-239 and plutonium-241, the weight in grams or kilograms of fissile radionuclides may be inserted instead of activity units. For plutonium-239 and plutonium-241, the weight in grams of fissile radionuclides may be inserted in addition to the activity units.

(3) *Transport index.* (see § 173.403 of this subchapter.)

(h) When one or more packages of Class 7 (radioactive) material are placed within an overpack, the overpack must be labeled as prescribed in this section, except as follows:

(1) The "contents" entry on the label may state "mixed" in place of the names of the radionuclides unless each inside package contains the same radionuclide(s).

(2) The "activity" entry on the label must be determined by adding together the number of becquerels of the Class 7 (radioactive) materials packages contained therein.

(3) For an overpack, the transport index (TI) must be determined by adding together the transport indices of the Class 7 (radioactive) materials packages contained therein, except that for a rigid overpack, the transport index (TI) may alternatively be determined by direct measurement as prescribed in § 173.403 of this subchapter under the definition for "transport index," taken by the person initially offering the packages contained within the overpack for shipment.

(4) The category of Class 7 label for the overpack must be determined from the table in § 172.403(c) using the TI derived according to paragraph (c)(3) or (c)(4) of this section, and the maximum surface radiation level on the surface of the overpack.

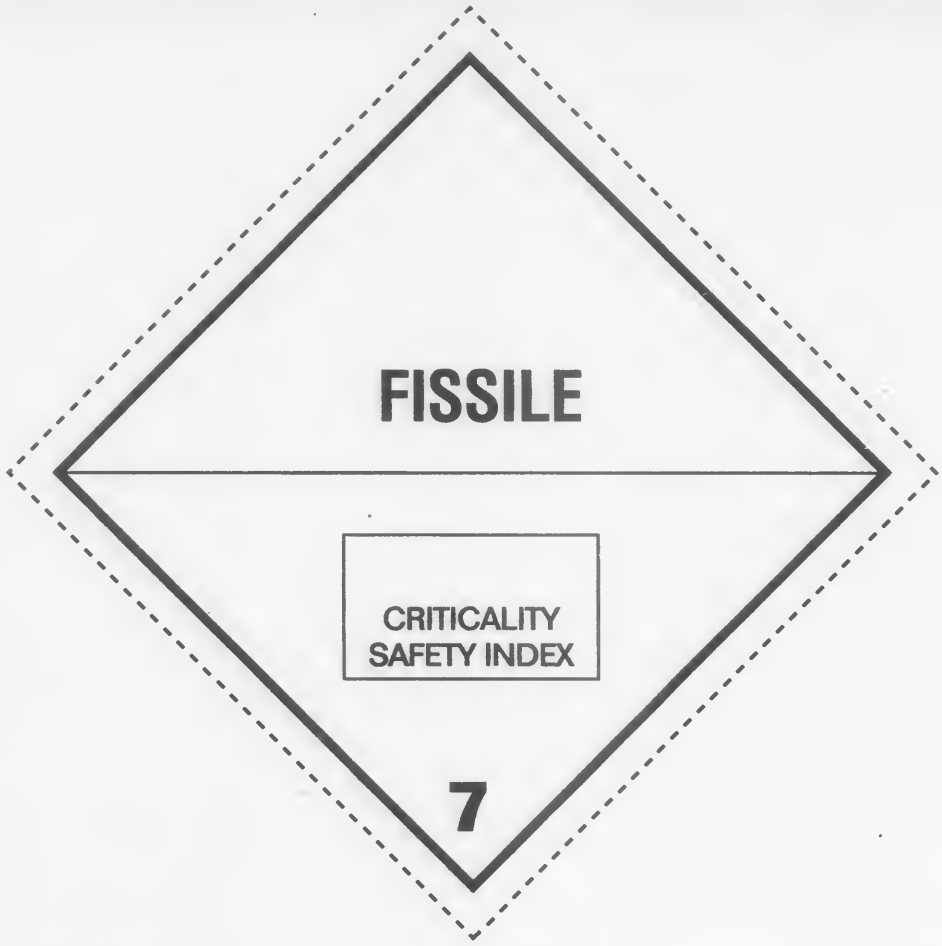
(5) The category of the Class 7 label of the overpack, and not that of any of the packages contained therein, must be used in accordance with Table 1 of § 172.504(e) to determine when the transport vehicle must be placarded.

(6) For fissile material, the criticality safety index which must be entered on the overpack FISSILE label is the sum of the criticality safety indices of the individual packages in the overpack, as stated in the certificate of approval for the package design issued by the NRC or the U.S. Competent Authority.

■ 12. A new § 172.441 is added to read as follow:

§ 172.441 FISSILE label.

(a) Except for size and color, the FISSILE label must be as follows:



(b) In addition to complying with § 172.407, the background color on the FISSILE label must be white.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

■ 13. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.53.

■ 14. In § 173.401, paragraphs (b)(2) and (b)(3) are revised and a new paragraph (b)(4) is added to read as follows:

§ 173.401 Scope.

* * * * *

(b) * * *

(2) Class 7 (radioactive) materials that have been implanted or incorporated into, and are still in, a person or live animal for diagnosis or treatment.

(3) Class 7 (radioactive) material that is an integral part of the means of transport.

(4) Natural material and ores containing naturally occurring radionuclides which are not intended to be processed for use of these radionuclides, provided the activity concentration of the material does not exceed 10 times the values specified in § 173.436.

■ 15. Section 173.403 is revised to read as follows:

§ 173.403 Definitions.

For purposes of this subpart—

A_1 means the maximum activity of special form Class 7 (radioactive) material permitted in a Type A package. This value is either listed in § 173.435 or may be derived in accordance with the procedures prescribed in § 173.433.

A_2 means the maximum activity of Class 7 (radioactive) material, other than special form material, LSA material, and SCO, permitted in a Type A package. This value is either listed in § 173.435 or may be derived in accordance with the procedures prescribed in § 173.433.

Class 7 (radioactive) material See the definition of *Radioactive material* in this section.

Closed transport vehicle means a transport vehicle or conveyance equipped with a securely attached exterior enclosure that during normal transportation restricts the access of unauthorized persons to the cargo space containing the Class 7 (radioactive) materials. The enclosure may be either temporary or permanent, and in the case of packaged materials may be of the "see-through" type, and must limit access from top, sides, and bottom.

Consignment means a package or group of packages or load of radioactive material offered by a person for transport in the same shipment.

Containment system means the assembly of components of the packaging intended to retain the Class 7 (radioactive) material during transport.

Contamination means the presence of a radioactive substance on a surface in quantities in excess of 0.4 Bq/cm^2 for

beta and gamma emitters and low toxicity alpha emitters or 0.04 Bq/cm^2 for all other alpha emitters. Contamination exists in two phases.

(1) *Fixed radioactive contamination* means radioactive contamination that cannot be removed from a surface during normal conditions of transport.

(2) *Non-fixed radioactive contamination* means radioactive contamination that can be removed from a surface during normal conditions of transport.

Conveyance means:

(1) For transport by public highway or rail: any transport vehicle or large freight container;

(2) For transport by water: any vessel, or any hold, compartment, or defined deck area of a vessel including any transport vehicle on board the vessel; and

(3) For transport by aircraft, any aircraft.

Criticality Safety Index (CSI) means a number (rounded up to the next tenth) which is used to provide control over the accumulation of packages, overpacks or freight containers containing fissile material. The CSI for packages containing fissile material is determined in accordance with the instructions provided in 10 CFR 71.22, 71.23, and 71.59. The CSI for an overpack, freight container, or consignment containing fissile material packages is the arithmetic sum of the criticality safety indices of all the fissile material packages contained within the overpack, freight container, or consignment.

Design means the description of a special form Class 7 (radioactive) material, a package, packaging, or LSA–III, that enables those items to be fully identified. The description may include specifications, engineering drawings, reports showing compliance with regulatory requirements, and other relevant documentation.

Deuterium means, for the purposes of § 173.453, deuterium and any deuterium compound, including heavy water, in which the ratio of deuterium atoms to hydrogen atoms exceeds 1:5000.

Exclusive use means sole use by a single consignor of a conveyance for which all initial, intermediate, and final loading and unloading are carried out in accordance with the direction of the consignor or consignee. The consignor and the carrier must ensure that any loading or unloading is performed by personnel having radiological training and resources appropriate for safe handling of the consignment. The consignor must provide to the initial carrier specific written instructions for maintenance of exclusive use shipment controls, including the vehicle survey requirement of § 173.443 (c) as applicable, and include these instructions with the shipping paper information provided to the carrier by the consignor.

Exemption value means either an exempt material activity concentration or an exempt consignment activity limit listed in the table in § 173.436, or determined according to the procedures described in § 173.433, and used to determine whether a given physically radioactive material is sufficiently radioactive to be subject to the HMR (see definition of radioactive material). An exemption value is different from an exemption, as defined in § 171.8 of this subchapter.

Fissile material means plutonium^{239}, plutonium^{241}, uranium^{233}, uranium^{235}, or any combination of these radionuclides. This term does not apply to material containing fissile nuclides, unirradiated natural uranium and unirradiated depleted uranium, or to natural uranium or depleted uranium that has been irradiated in thermal reactors only.

Freight container means a reusable container having a volume of 1.81 cubic meters (64 cubic feet) or more, designed and constructed to permit it being lifted with its contents intact and intended primarily for containment of packages in unit form during transportation. A "small freight container" is one which has either one outer dimension less than 1.5 m (4.9 feet) or an internal volume of not more than 3.0 cubic meters (106 cubic feet). All other freight containers are designated as "large freight containers."

Graphite means, for the purposes of § 173.453, graphite with a boron equivalent content less than 5 parts per million and density greater than 1.5 grams per cubic centimeter.

Highway route controlled quantity means a quantity within a single package which exceeds:

(1) 3,000 times the A_1 value of the radionuclides as specified in § 173.435 for special form Class 7 (radioactive) material;

(2) 3,000 times the A_2 value of the radionuclides as specified in § 173.435 for normal form Class 7 (radioactive) material; or

(3) 1,000 TBq (27,000 Ci), whichever is least.

Limited quantity of Class 7 (radioactive) material means a quantity of Class 7 (radioactive) material not exceeding the material's package limits specified in § 173.425 and conforming with requirements specified in § 173.421.

Low Specific Activity (LSA) material means Class 7 (radioactive) with limited specific activity which satisfies the descriptions and limits set forth below. Shielding materials surrounding the LSA material may not be considered in determining the estimated average specific activity of the package contents. LSA material must be in of three groups:

(1) LSA–I:

(i) Uranium and thorium ores, concentrates of uranium and thorium ores, and other ores containing naturally occurring radionuclides which are intended to be processed for the use of these radionuclides; or

(ii) Solid unirradiated natural uranium or depleted uranium or natural thorium or their solid or liquid compounds or mixtures; or

(iii) Radioactive material other than fissile material, for which the A_2 value is unlimited; or

(iv) Other radioactive material, excluding fissile material in quantities not excepted under § 173.453, in which the activity is distributed throughout and the estimated average specific activity does not exceed 30 times the values for activity concentration specified in § 173.436, or 30 times the default values listed in Table 10B of § 173.433.

(2) LSA–II:

(i) Water with tritium concentration up to 0.8 TBq/L (20.0 Ci/L); or

(ii) Other radioactive material in which the activity is distributed throughout and the average specific activity does not exceed 10^{-4} A_2/g for solids and gases, and 10^{-5} A_2/g for liquids.

(3) LSA–III. Solids (*e.g.*, consolidated wastes, activated materials), excluding powders, that meet the requirements of § 173.468 and in which:

(i) The radioactive material is distributed throughout a solid or a collection of solid objects, or is essentially uniformly distributed in a solid compact binding agent (such as concrete, bitumen, ceramic, *etc.*);

(ii) The radioactive material is relatively insoluble, or it is intrinsically contained in a relatively insoluble material, so that, even under loss of packaging, the loss of Class 7 (radioactive) material per package by leaching when placed in water for seven days would not exceed 0.1 A_2; and

(iii) The estimated average specific activity of the solid, excluding any shielding material, does not exceed 2×10^{-3} A_2/g.

Low toxicity alpha emitters means natural uranium; depleted uranium; natural thorium; uranium-235 or uranium-238; thorium-232; thorium-228 and thorium-230 when contained in

ores or physical and chemical concentrates; and alpha emitters with a half-life of less than 10 days.

Maximum normal operating pressure means the maximum gauge pressure that would develop in a containment system during a period of one year, in the absence of venting or cooling, under the heat conditions specified in 10 CFR 71.71(c)(1).

Multilateral approval means approval of a package design or shipment by the relevant Competent Authority of the country of origin and of each country through or into which the package or shipment is to be transported. This definition does not include approval from a country over which Class 7 (radioactive) materials are carried in aircraft, if there is no scheduled stop in that country.

Natural thorium means thorium with the naturally occurring distribution of thorium isotopes (essentially 100 percent by weight of thorium-232).

Normal form Class 7 (radioactive) material means Class 7 (radioactive) which has not been demonstrated to qualify as "special form Class 7 (radioactive) material."

Package means the packaging together with its radioactive contents as presented for transport.

(1) "Excepted package" means a packaging together with its excepted Class 7 (radioactive) materials as specified in §§ 173.421–173.426 and 173.428.

(2) "Industrial package" means a packaging that, together with its low specific activity (LSA) material or surface contaminated object (SCO) contents, meets the requirements of §§ 173.410 and 173.411. Industrial packages are categorized in § 173.411 as either:

(i) "Industrial package Type 1 (IP–1)";

(ii) "Industrial package Type 2 (IP–2)"; or

(iii) "Industrial package Type 3 (IP–3)".

(3) "Type A package" means a packaging that, together with its radioactive contents limited to A_1 or A_2 as appropriate, meets the requirements of §§ 173.410 and 173.412 and is designed to retain the integrity of containment and shielding required by this part under normal conditions of transport as demonstrated by the tests set forth in § 173.465 or § 173.466, as appropriate. A Type A package does not require Competent Authority approval.

(4) "Type B package" means a packaging designed to transport greater than an A_1 or A_2 quantity of radioactive material that, together with its radioactive contents, is designed to retain the integrity of containment and shielding required by this part when subjected to the normal conditions of transport and hypothetical accident test conditions set forth in 10 CFR part 71.

(i) "Type B(U) package" means a Type B packaging that, together with its radioactive contents, for international shipments requires unilateral approval only of the package design and of any stowage provisions that may be necessary for heat dissipation.

(ii) "Type B(M) package" means a Type B packaging, together with its radioactive contents, that for international shipments requires multilateral approval of the package design, and may require approval of the conditions of shipment. Type B(M) packages are those Type B package designs which have a maximum normal operating pressure of more than 700 kPa/cm² (100 lb/in²) gauge or a relief device which would allow the release of Class 7 (radioactive) material to the environment under the hypothetical accident conditions specified in 10 CFR part 71.

(5) "Fissile material package" means a packaging, together with its fissile material contents, which meets the requirements for fissile material packages described in subpart E of 10 CFR 71. A fissile material package may be a Type AF package, a Type B(U)F package, or a Type B(M)F package.

Packaging means, for Class 7 (radioactive) materials, the assembly of components necessary to ensure compliance with the packaging requirements of this subpart. It may consist of one or more receptacles, absorbent materials, spacing structures, thermal insulation, radiation shielding, service equipment for filling, emptying, venting and pressure relief, and devices for cooling or absorbing mechanical shocks. The conveyance, tie-down system, and auxiliary equipment may sometimes be designated as part of the packaging.

Quality assurance means a systematic program of controls and inspections applied by each person involved in the transport of radioactive material which provides confidence that a standard of safety prescribed in this subchapter is achieved in practice.

Radiation level means the radiation dose-equivalent rate expressed in millisievert(s) per hour or mSv/h (millirems(s) per hour or mrem/h). Neutron flux densities may be converted into radiation levels according to Table 1:

TABLE 1.—NEUTRON FLUENCE RATES TO BE REGARDED AS EQUIVALENT TO A RADIATION LEVEL OF 0.01 MSV/H (1 MREM/H)[1]

Energy of neutron	Flux density equivalent to 0.01 mSv/h (1 mrem/h) neutrons per square centimeter per second (n/cm²/s)
Thermal (2.510E–8) MeV	272.0
1 keV	272.0
10 keV	281.0
100 keV	47.0
500 keV	11.0
1 MeV	7.5
5 MeV	6.4
10 MeV	6.7

[1] Flux densities equivalent for energies between those listed in this table may be obtained by linear interpolation.

Radioactive contents means a Class 7 (radioactive) material, together with any contaminated or activated solids, liquids and gases within the packaging.

Radioactive instrument or article means any manufactured instrument or article such as an instrument such as an instrument, clock, electronic tube or apparatus, or similar instrument or article having Class 7 (radioactive) material in gaseous or non-dispersible solid form as a component part.

Radioactive material means any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the table in § 173.436 or values derived according to the instructions in § 173.433.

Special form Class 7 (radioactive) material means either an indispersible solid radioactive material or a sealed capsule containing radioactive material which satisfies the following conditions:

(1) It is either a single solid piece or a sealed capsule containing radioactive material that can be opened only by destroying the capsule;

(2) The piece or capsule has at least one dimension not less than 5 mm (0.2 in); and

(3) It satisfies the test requirements of § 173.469. Special form encapsulations designed in accordance with the requirements of § 173.389(g) in effect on June 30, 1983 (see 49 CFR part 173, revised as of October 1, 1982), and constructed prior to July 1, 1985 and special form encapsulations designed in accordance with the requirements of § 173.403 in effect on March 31, 1996 (see 49 CFR part 173, revised as of October 1, 1995), and constructed prior to April 1, 1997, may continue to be used. Any other special form

encapsulation must meet the requirements of this paragraph (3).

Specific activity of a radionuclide means the activity of the radionuclide per unit mass of that nuclide. The specific activity of a material in which the radionuclide is essentially uniformly distributed is the activity per unit mass of the material.

Surface Contaminated Object (SCO) means a solid object which is not itself radioactive but which has radioactive material distributed on its surface. SCO exists in two phases:

(1) SCO–I: A solid object on which:

(i) The non-fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4 Bq/cm^2 (10^{-4} microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 0.4 Bq/cm^2 (10^{-5} microcurie/cm^2) for all other alpha emitters;

(ii) The fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^4 Bq/cm^2 (1.0 microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 4×10^3 Bq/cm^2 (0.1 microcurie/cm^2) for all other alpha emitters; and

(iii) The non-fixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^4 Bq/cm^2 (1 microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 4×10^3 Bq/cm^2 (0.1 microcurie/cm^2) for all other alpha emitters.

(2) SCO–II: A solid object on which the limits for SCO–I are exceeded and on which:

(i) The non-fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 400 Bq/cm^2 (10^{-2} microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 40 Bq/cm^2 (10^{-3} microcurie/cm^2) for all other alpha emitters;

(ii) The fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 8×10^5 Bq/cm^2 (20 microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 (2 microcuries/cm^2) for all other alpha emitters; and

(iii) The non-fixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 8×10^5 Bq/cm^2 (20 microcuries/cm^2) for beta and gamma and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 (2 microcuries/cm^2) for all other alpha emitters.

Transport index (TI) means the dimensionless number (rounded up to the next tenth) placed on the label of a package, to designate the degree of control to be exercised by the carrier during transportation. The transport index is determined by multiplying the maximum radiation level in millisieverts (mSv) per hour at 1 m (3.3 ft) from the external surface of the package by 100 (equivalent to the maximum radiation level in millirem per hour at 1 m (3.3 ft)).

Type A quantity means a quantity of Class 7 (radioactive) material, the aggregate radioactivity which does not exceed A_1 for special form Class 7 (radioactive) material of A_2 for normal form Class 7 (radioactive) material, where A_1 and A_2 values are given in §173.435 or are determined in accordance with §173.433.

Type B quantity means a quantity of material greater than a Type A quantity.

Unilateral approval means approval of a package design solely by the Competent Authority of the country of origin of the design.

Unirradiated thorium means thorium containing not more than 10^{-7} grams uranium-233 per gram of thorium-232.

Unirradiated uranium means uranium containing not more than 2×10^3 Bq of plutonium per gram of uranium-235, not more than 9×10^6 Bq of fission products per gram of uranium-235 and not more than 5×10^{-3} g of uranium-236 per gram of uranium-235.

Uranium—natural, depleted or enriched means the following:

(1)(i) "Natural uranium" means chemically separated uranium containing the naturally occurring distribution of uranium isotopes (approximately 99.28% uranium-238 and 0.72% uranium-235 by mass).

(ii) "Depleted uranium" means uranium containing a lesser mass percentage of uranium-235 than in natural uranium.

(iii) "Enriched uranium" means uranium containing a greater mass percentage of uranium-235 than 0.72%.

(2) In all cases listed in this definition, a very small mass percentage of uranium-234 is present.

■ 16. In §173.411, paragraph (b)(5)(ii) is revised to read as follows:

§173.411 Industrial packagings.

* * * * *

(b) * * *

(5) * * *

(ii) Be designed to conform to the standards prescribed in ISO 1496–1: 1990(E) "Series 1 Freight Containers—Specification and testing—Part 1: General cargo containers," excluding dimensions and ratings (IBR, see §171.7 of this subchapter);

* * * * *

■ 17. In § 173.415, paragraphs (a), (c) and (d) are revised to read as follows:

§ 173.415 Authorized Type A packages.

* * * * *

(a) DOT Specification 7A (see § 178.350 of this subchapter) Type A general packaging. Each offeror of a Specification 7A package must maintain on file for at least one year after the latest shipment, and shall provide to DOT on request, complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with that specification.

* * * * *

(c) Any Type B(U) or Type B(M) packaging authorized pursuant to § 173.416.

(d) Any foreign-made packaging that meets the standards in "IAEA Regulations for the Safe Transport of Radioactive Material No. TS–R–1" (IBR, see § 171.7 of this subchapter) and bears the marking "Type A". Such packagings may be subsequently used for domestic and export shipments of Class 7 (radioactive) materials provided the offeror obtains the applicable documentation of tests and engineering evaluations and maintains the documentation on file in accordance with paragraph (a) of this section. These packagings must conform with requirements of the country of origin (as indicated by the packaging marking) and the IAEA regulations applicable to Type A packagings.

■ 18. Section 173.416 is revised to read as follows:

§ 173.416 Authorized Type B packages.

Each of the following packages is authorized for shipment of quantities exceeding A_1 or A_2, as appropriate:

(a) Any Type B(U) or Type B(M) packaging that meets the applicable requirements of 10 CFR part 71 and that has been approved by the U.S. Nuclear Regulatory Commission may be shipped pursuant to § 173.471.

(b) Any Type B(U) or B(M) packaging that meets the applicable requirements in "IAEA Regulations for the Safe Transport of Radioactive Material, No. TS–R–1" (IBR, see § 171.7 of this subchapter) and for which the foreign Competent Authority Certificate has been revalidated by DOT pursuant to § 173.473. These packagings are authorized only for export and import shipments.

(c) Continued use of an existing Type B packaging constructed to DOT Specification 6M, 20WC, or 21WC is authorized until October 1, 2008 if it conforms in all aspects to the requirements of this subchapter in effect on October 1, 2003.

■ 19. Section 173.417 is revised to read as follows:

§ 173.417 Authorized fissile materials packages.

(a) Except as provided in § 173.453, fissile materials containing not more than A_1 or A_2 as appropriate, must be packaged in one of the following packagings:

(1)(i) Any packaging listed in § 173.415, limited to the Class 7 (radioactive) materials specified in 10 CFR part 71, subpart C;

(ii) Any Type AF, Type B(U)F, or Type B(M)F packaging that meets the applicable standards for fissile material packages in 10 CFR part 71; or

(iii) Any Type AF, Type B(U)F, or Type B(M)F packaging that meets the applicable requirements for fissile material packages in Section VI of the International Atomic Energy Agency "Regulations for the Safe Transport of Radioactive Material, No. TS–R–1 (IBR, see § 171.7 of this subchapter)," and for which the foreign Competent Authority certificate has been revalidated by the U.S. Competent Authority, in accordance with § 173.473. These packages are authorized only for export and import shipments.

(2) A residual "heel" of enriched solid uranium hexafluoride may be transported without a protective overpack in any metal cylinder that meets both the requirements of § 173.415 and § 178.350 of this subchapter for Specification 7A Type A packaging, and the requirements of § 173.420 for packagings containing greater than 0.1 kg of uranium hexafluoride. Any such shipment must be made in accordance with Table 2, as follows:

TABLE 2.—ALLOWABLE CONTENT OF URANIUM HEXAFLUORIDE (UF_6 "HEELS" IN A SPECIFICATION 7A CYLINDER

Maximum cylinder diameter		Cylinder volume		Maximum uranium 235-enrichment (weight) percent	Maximum "Heel" weight per cylinder			
					UF6		Uranium-235	
Centimeters	Inches	Liters	Cubic feet		kg	lb	kg	lb
12.7	5	8.8	0.311	100.0	0.045	0.1	0.031	0.07
20.3	8	39.0	1.359	12.5	0.227	0.5	0.019	0.04
30.5	12	68.0	2.410	5.0	0.454	1.0	0.015	0.03
76.0	30	725.0	25.64	5.0	11.3	25.0	0.383	0.84
122.0	48	3,084.0	[1] 108.9	4.5	22.7	50.0	0.690	1.52
122.0	48	4,041.0	[2] 142.7	4.5	22.7	50.0	0.690	1.52

[1] 10 ton.
[2] 14 ton.

(3) DOT Specification 20PF–1, 20PF–2, or 20PF–3 (see § 178.356 of this subchapter), or Specification 21PF–1A, 21PF–1B, or 21PF–2 (see § 178.358 of this subchapter) phenolic-foam insulated overpack with snug fittings inner metal cylinders, meeting all requirements of §§ 173.24, 173.410, 173.412, and 173.420 and the following:

(i) Handling procedures and packaging criteria must be in accordance with United States Enrichment Corporation Report No. USEC–651 or ANSI N14.1 (IBR, see § 171.7 of this subchapter); and

(ii) Quantities of uranium hexafluoride are authorized as shown in Table 3 of this section, with each package assigned a minimum criticality safety index as also shown.

(b) Fissile Class 7 (radioactive) materials with radioactive content exceeding A_1 or A_2 must be packaged in one of the following packagings:

(1) Type B(U), or Type B(M) packaging that meets the standards for packaging of fissile materials in 10 CFR part 71, and is approved by the U.S. Nuclear Regulatory Commission and used in accordance with § 173.471;

(2) Type B(U) or Type B(M) packaging that also meets the applicable requirements for fissile material packaging in Section VI of the International Atomic Energy Agency "Regulations for the Safe Transport of Radioactive Material, No. TS–R–1," and for which the foreign Competent Authority certificate has been revalidated by the U.S. Competent Authority in accordance with § 173.473. These packagings are authorized only for import and export shipments; or

(3) DOT Specifications 20PF–1, 20PF–2, or 20PF–3 (see § 178.356 of this subchapter), for DOT Specifications 21PF–1A or 21PF–1B (see § 178.356 of this subchapter) phenolic-foam insulated overpack with snug fitting inner metal cylinders, meeting all requirements of §§ 173.24, 173.410, and 173.412, and the following:

(i) Handling procedures and packaging criteria must be in accordance with United States Enrichment Corporation Report No. USEC–651 or ANSI N14.1; and

(ii) Quantities of uranium hexafluoride are authorized as shown in Table 3, with each package assigned a minimum criticality safety index as also shown:

TABLE 3.—AUTHORIZED QUANTITIES OF URANIUM HEXAFLUORIDE

Protective overpack specification number	Maximum inner cyclinder diameter		Maximum weight of UF6 contents		Maximum U–235 enrichment (weight/percent)	Minimum criticality safety index
	Centimeters	Inches	Kilograms	Pounds		
20PF–1	12.7	5	25	55	100.0	0.1
20PF–2	20.3	8	116	255	12.5	0.4
20PF–3	30.5	12	209	460	5.0	1.1
21PF–1A[1] or 21PF–1B[1]	[2] 76.0	[2] 30	2,250	4,950	5.0	5.0
21PF–1A[1] or 21PF–1B[1]	[3] 76.0	[3] 30	2,282	5,020	5.0	5.0

TABLE 3.—AUTHORIZED QUANTITIES OF URANIUM HEXAFLUORIDE—Continued

Protective overpack specification number	Maximum inner cyclinder diameter		Maximum weight of UF6 contents		Maximum U–235 enrichment (weight/percent)	Minimum criticality safety index
	Centimeters	Inches	Kilograms	Pounds		
21PF–2[1]	[2]76.0	[2]30	2,250	4,950	5.0	5.0
21PF–2[1]	[3]76.0	[3]30	2,282	5,020	5.0	5.0

[1] For 76 cm (30 in) cylinders, the maximum H/U atomic ratio is 0.088.
[2] Model 30A inner cylinder (reference USEC–651).
[3] Model 30B inner cylinder (reference USEC–651).

(c) Continued use of an existing fissile material packaging constructed to DOT Specification 6L, 6M, or 1A2, is authorized until October 1, 2008 if it conforms in all respects to the requirements of this subchapter in effect on October 1, 2003.

■ 20. Section 173.420 is revised to read as follows:

§ 173.420 Uranium hexafluoride (fissile, fissile excepted and non-fissile).

(a) In addition to any other applicable requirements of this subchapter, quantities greater than 0.1 kg of fissile, fissile excepted or non-fissile uranium hexafluoride must be offered for transportation as follows:

(1) Before initial filling and during periodic inspection and test, packagings must be cleaned in accordance with American National Standard N14.1 (IBR, see § 171.7 of this subchapter).

(2) Packagings must be designed, fabricated, inspected, tested and marked in accordance with—

(i) American National Standard N14.1 in effect at the time the packaging was manufactured;

(ii) Specifications for Class DOT–106A multi-unit tank car tanks (see §§ 179.300 and 179.301 of this subchapter);

(iii) Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter), provided the packaging—

(A) Was manufactured on or before June 30, 1987;

(B) Conforms to the edition of the ASME Code in effect at the time the packaging was manufactured;

(C) Is used within its original design limitations; and

(D) Has shell and head thicknesses that have not decreased below the minimum value specified in the following table:

Packaging model	Minimum thickness; millimeters (inches)
1S, 2S	1.58 (0.062)
5A, 5B, 8A	3.17 (0.125)
12A, 12B	4.76 (0.187)
30B	7.93 (0.312)
48A, F, X, and Y	12.70 (0.500)
48T, O, OM, OM Allied, HX, H, and G	6.35 (0.250)

(3) Each package shall be designed so that it will:

(i) withstand a hydraulic test at an internal pressure of at least 1.4 MPa (200 psi) without leakage;

(ii) withstand the test specified in § 173.465(c) without loss or dispersal of the uranium hexafluoride; and

(iii) withstand the test specified in 10 CFR 71.73(c)(4) without rupture of the containment system.

(4) Uranium hexafluoride must be in solid form.

(5) The volume of solid uranium hexafluoride, except solid depleted uranium hexafluoride, at 20°C (68° F) may not exceed 61% of the certified volumetric capacity of the packaging. The volume of solid depleted uranium hexafluoride at 20° C (68° F) may not exceed 62% of the certified volumetric capacity of the packaging.

(6) The pressure in the package at 20° C (68° F) must be less than 101.3 kPa (14.8 psig).

(b) Each packaging for uranium hexafluoride must be periodically inspected, tested, marked and otherwise conform with the American National Standard N14.1.

(c) Each repair to a packaging for uranium hexafluoride must be performed in accordance with the American National Standard N14.1.

(d) Non-fissile uranium hexafluoride, in quantities of less than 0.1 kg, may be shipped in packaging that meets §§ 173.24, 173.24a, and 173.410.

■ 21. In § 173.421, paragraph (a) introductory text is revised to read as follows:

§ 173.421 Excepted packages for limited quantities of Class 7 (radioactive) materials.

(a) A Class 7 (radioactive) material with an activity per package which does not exceed the limited quantity package limits specified in Table 4 in § 173.425, and its packaging, are excepted from requirements in this subchapter for specification packaging, labeling, marking (except for the UN identification number marking requirement described in § 173.422(a)), and if not a hazardous substance or hazardous waste, shipping papers, and the requirements of this subpart if:

* * * * *

■ 22. Section 173.422 is revised to read as follows:

§ 173.422 Additional requirements for excepted packages containing Class 7 (radioactive) materials.

An excepted package of Class 7 (radioactive) material that is prepared for shipment under the provisions of § 173.421, § 173.424, § 173.426, or § 173.428 is not subject to any additional requirements of this subchapter, except for the following:

(a) The outside of each package must be marked with the four digit UN identification number for the material preceded by the letters UN, as shown in column (4) of the Hazardous Materials Table in § 172.101 of this subchapter;

(b) Sections 171.15 and 171.16 of this subchapter, pertaining to the reporting of incidents;

(c) Sections 174.750, 175.700(b), and 176.710 of this subchapter (depending on the mode of transportation), pertaining to the reporting of decontamination;

(d) The training requirements of subpart H of part 172 of this subchapter; and

(e) For materials that meet the definition of a hazardous substance or a hazardous waste, the shipping paper requirements of subpart C of part 172 of this subchapter.

■ 23. Section 173.424 is revised to read as follows:

§ 173.424 Excepted packages for radioactive instruments and articles.

A radioactive instrument or article and its packaging are excepted from requirements in this subchapter for specification packaging, labeling, marking (except for the UN identification number marking requirement described in § 173.422(a)), and if not a hazardous substance or

hazardous waste, shipping papers and the requirements of this subpart if:

(a) Each package meets the general design requirements of § 173.410;

(b) The activity of the instrument or article does not exceed the relevant limit listed in Table 4 in § 173.425;

(c) The total activity per package does not exceed the relevant limit listed in Table 4 in § 173.425;

(d) The radiation level at 10 cm (4 in) from any point on the external surface of any unpackaged instrument or article does not exceed 0.1 mSv/hour (10 mrem/hour);

(e) The active material is completely enclosed by non-active components (a device performing the sole function of containing radioactive material shall not be considered to be an instrument or manufactured article);

(f) The radiation level at any point on the external surface of a package bearing the article or instrument does not exceed 0.005 mSv/hour (0.5 mrem/hour), or, for exclusive use domestic shipments, 0.02 mSv/hour (2 mrem/hour);

(g) The nonfixed (removable) radioactive surface contamination on the external surface of the package does not exceed the limits specified in § 173.443(a);

(h) Except as provided in § 173.426, the package does not contain more than 15 g of uranium-235; and

(i) The package is otherwise prepared for shipment as specified in § 173.422.

§ 173.425 [Amended]

■ 24. In § 173.425:

■ a. In the introductory text, "table 7" is revised to read "Table 4".

b. In the table heading the wording "TABLE 7" is revised to read "TABLE 4".

■ 25. In § 173.426, the introductory text is revised to read as follows:

§ 173.426 Excepted packages for articles containing natural uranium or thorium.

A manufactured article in which the sole Class 7 (radioactive) material content is natural uranium, unirradiated depleted uranium or natural thorium, and its packaging, are excepted from the requirements in this subchapter for specification packaging, labeling, marking (except for the UN identification number marking requirement described in § 173.422(a)), and if not a hazardous substance or hazardous waste, shipping papers and the requirements of this subpart if:

* * * * *

■ 26. Section 173.427 is revised to read as follows:

§ 173.427 Transport requirements for low specific activity (LSA) Class 7 (radioactive) materials and surface contaminated objects (SCO).

(a) In addition to other applicable requirements specified in this subchapter, LSA materials and SCO, unless excepted by paragraph (c) or (d) of this section, must be packaged in accordance with paragraph (b) of this section and, unless excepted by paragraph (d) of this section, must be transported in accordance with the following conditions:

(1) The external dose rate may not exceed an external radiation level of 10 mSv/h (1 rem/h) at 3 m from the unshielded material;

(2) The quantity of LSA and SCO material in any single conveyance may not exceed the limits specified in Table 5;

(3) LSA material and SCO that are or contain fissile material must conform to the applicable requirements of § 173.453;

(4) Packaged and unpackaged Class 7 (radioactive) materials must conform to the contamination control limits specified in § 173.443;

(5) External radiation levels may not exceed those specified in § 173.441; and

(6) For LSA material and SCO consigned as exclusive use:

(i) Shipments shall be loaded by the consignor and unloaded by the consignee from the conveyance or freight container in which originally loaded;

(ii) There may be no loose radioactive material in the conveyance; however, when the conveyance is the packaging, there may not be any leakage of radioactive material from the conveyance;

(iii) Packaged and unpackaged Class 7 (radioactive) materials must be braced so as to prevent shifting of lading under conditions normally incident to transportation;

(iv) Specific instructions for maintenance of exclusive use shipment controls shall be provided by the offeror to the carrier. Such instructions must be included with the shipping paper information;

(v) Except for shipments of unconcentrated uranium or thorium ores, the transport vehicle must be placarded in accordance with subpart F of part 172 of this subchapter;

(vi) For domestic transportation only, packaged and unpackaged Class 7 (radioactive) materials containing less than an A_2 quantity are excepted from the marking and labeling requirements of this subchapter. However, the exterior of each package or unpackaged Class 7 (radioactive) materials must be stenciled or otherwise marked "RADIOACTIVE—LSA" or "RADIOACTIVE—SCO", as appropriate, and packages or unpackaged Class 7 (radioactive) materials that contain a hazardous substance must be stenciled or otherwise marked with the letters "RQ" in association with the description in this paragraph (a)(6)(vi); and

(vii) Transportation by aircraft is prohibited except when transported in an industrial package in accordance with Table 6 of this section, or in an authorized Type A or Type B package.

(b) Except as provided in paragraph (c) of this section, LSA material and SCO must be packaged as follows:

(1) In an industrial package (IP–1, IP–2 or IP–3; § 173.411), subject to the limitations of Table 6;

(2) In a DOT Specification 7A (§ 178.350 of this subchapter) Type A package;

(3) In any Type B, B(U), or B(M) packaging authorized pursuant to § 173.416;

(4) For domestic, exclusive use transport of less than an A_2 quantity only, in a packaging which meets the requirements of §§ 173.24, 173.24a, and 173.410; or

(5) For exclusive use transport of liquid LSA–I only, in either:

(i) Specification 103CW, 111A60W7 (§§ 179.200, 179.201, 179.202 of this subchapter) tank cars. Bottom openings in tanks are prohibited; or

(ii) Specification MC 310, MC 311, MC 312, MC 331 or DOT 412 (§ 178.348 or § 178.337 of this subchapter) cargo tank motor vehicles. Bottom outlets are not authorized. Trailer-on-flat-car service is not authorized.

(c) LSA material and SCO in groups LSA–I and SCO–I may be transported unpackaged under the following conditions:

(1) All unpackaged material, other than ores containing only naturally occurring radionuclides, shall be transported in such a manner that under normal conditions of transport there will be no escape of the radioactive contents from the conveyance nor will there be any loss of shielding;

(2) Each conveyance must be under exclusive use, except when only transporting SCO–I on which the contamination on the accessible and the inaccessible surfaces is not greater than 4.0 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters and 0.4 Bq/cm^2 for all other alpha emitters; and

(3) For SCO–I where it is suspected that non-fixed contamination exists on inaccessible surfaces in excess of the values specified in paragraph (c)(2) of this section, measures shall be taken to

ensure that the radioactive material is not released into the conveyance or to the environment.

(d) LSA and SCO that exceed the packaging limits in this section must be packaged in accordance with 10 CFR part 71.

(e) Tables 5 and 6 are as follows:

TABLE 5.—CONVEYANCE ACTIVITY LIMITS FOR LSA MATERIAL AND SCO

Nature of material	Activity limit for conveyances
1. LSA–I	No limit.
2. LSA–II and LSA–III; non-Combustible solids.	No limit.
3. LSA–II and LSA–III; Combustible solids and all liquids and gases.	100 A_2
4. SCO	100 A_2

TABLE 6.—INDUSTRIAL PACKAGE INTEGRITY REQUIREMENTS FOR LSA MATERIAL AND SCO

Contents	Industrial packaging type	
	Exclusive use shipment	Non exclusive use shipment
1. LSA–I:		
Solid	IP–1	IP–1
Liquid	IP–1	IP–2
2. LSA–II:		
Solid	IP–2	IP–2
Liquid and gas	IP–2	IP–3
3. LSA–III:	IP–2	IP–3
SCO–I	IP–1	IP–1
SCO–II	IP–2	IP–2

■ 27. In § 173.428, the introductory text is revised, paragraphs (c), (d) and (e) are redesignated as paragraphs (d), (e) and (f) respectively, and a new paragraph (c) is added to read as follows:

§ 173.428 Empty Class 7 (radioactive) materials packaging.

A packaging which previously contained Class 7 (radioactive) materials and has been emptied of contents as far as practical, is excepted from the shipping paper and marking (except for the UN identification number marking requirement described in § 173.422(a)) requirements of this subchapter, provided that—

* * * * *

(c) The outer surface of any uranium or thorium in its structure is covered with an inactive sheath made of metal or some other substantial material;

* * * * *

■ 28. In § 173.431, paragraph (b) is revised to read as follows:

§ 173.431 Activity limits for Type A and Type B packages.

* * * * *

(b) The limits on activity contained in a Type B(U) or Type B(M) package are those prescribed in §§ 173.416 and 173.417, or in the applicable approval certificate under §§ 173.471, 173.472 or 173.473.

■ 29. Section 173.433 is revised to read as follows:

§ 173.433 Requirements for determining basic radionuclide values, and for the listing of radionuclides on shipping papers and labels.

(a) For individual radionuclides listed in the table in § 173.435 and § 173.436:

(1) A_1 and A_2 values are given in the table in § 173.435; and

(2) Activity concentration exemption values and consignment activity exemption values are given in the table in § 173.436.

(b) For individual radionuclides which are not listed in the tables in § 173.435 or § 173.436:

(1) the radionuclide values in Tables 7 or 8 of this section may be used; or

(2) other basic radionuclide values may be used provided they are first approved by the Associate Administrator or, for international transport, multilateral approval is obtained from the pertinent Competent Authorities.

(c) In calculating A_1 or A_2 values for a radionuclide not listed in the table in § 173.435:

(1) Where the chemical form of each radionuclide is known, it is permissible to use the A_2 value related to its solubility class as recommended by the International Commission on Radiological Protection, if the chemical forms under both normal and accident conditions of transport are taken into consideration.

(2) A single radioactive decay chain in which the radionuclides are present in their naturally-occurring proportions, and in which no daughter nuclide has a half life either longer than 10 days or longer than that of the parent nuclide, will be considered as a single radionuclide, and the activity to be taken into account and the A_1 or A_2 value to be applied will be those corresponding to the parent nuclide of that chain. Otherwise, the parent and daughter nuclides will be considered as a mixture of different nuclides.

(d) Mixtures of radionuclides whose identities and respective activities are known must conform to the following conditions:

(1) For special form Class 7 (radioactive) material, the activity which may be transported in a Type A package must satisfy:

$$\sum_i \frac{B(i)}{A_1(i)} \leq 1$$

Where:

B(i) is the activity of radionuclide i in special form; and

A_1 (i) is the A_1 value for radionuclide i.

(2) For normal form Class 7 (radioactive) material, the activity which may be transported in a Type A package must satisfy:

$$\sum_j \frac{C(j)}{A_2(j)} \leq 1$$

Where:

C(j) is the activity of radionuclide j in normal form; and

A_2(j) is the A_2 value for radionuclide j.

(3) If the package contains both special and normal form Class 7 (radioactive) material, the activity which may be transported in a Type A package must satisfy:

$$\sum_i \frac{B(i)}{A_1(i)} + \sum_j \frac{C(j)}{A_2(j)} \leq 1$$

Where:

The symbols are defined as in paragraphs (d)(2) and (d)(3) of this section.

(4) Alternatively, the A_1 value for a mixture of special form material may be determined as follows:

$$A_1 \text{ for mixture} = \frac{1}{\sum_i \frac{f(i)}{A_1(i)}}$$

Where:

f(i) is the fraction of activity for radionuclide i in the mixture; and

A_1(i) is the appropriate A_1 value for radionuclide i.

(5) Alternatively, the A_2 value for mixtures of normal form material may be determined as follows:

$$A_2 \text{ for mixture} = \frac{1}{\sum_i \frac{f(i)}{A_2(i)}}$$

Where:

f(i) is the fraction of activity for normal form radionuclide i in the mixture; and

A_2(i) is the appropriate A_2 value for radionuclide i.

(6) The exempt activity concentration for mixtures of nuclides may be determined as follows:

$$\text{Exempt consignment activity limit for mixture} = \frac{1}{\sum_i \frac{f(i)}{[A](i)}}$$

Where:

f(i) is the fraction of activity concentration of nuclide i in the mixture; and

[A] (i) is the activity concentration for exempt material containing nuclide i.

(7) The activity limit for an exempt consignment for mixtures of nuclides may be determined as follows:

$$\text{Exempt consignment activity limit for mixture} = \frac{1}{\sum_i \frac{f(i)}{A(i)}}$$

Where:

f(i) is the fraction of activity of nuclide i in the mixture; and

A(i) is the activity limit for exempt consignments for nuclide i.

(e) When the identity of each nuclide is known but the individual activities of some of the radionuclides are not known, the radionuclides may be grouped and the lowest A_1 or A_2 value, as appropriate, for the radionuclides in each group may be used in applying the formulas in paragraphs (d)(1) through (d)(5) of this section. Groups may be based on the total alpha activity and the total beta/gamma activity when these are known, using the lowest A_1 or A_2 values for the alpha emitters or beta/gamma emitters, respectively.

(f) When the identity of each nuclide is known but the individual activities of some of the radionuclides are not known, the radionuclides may be grouped and the lowest [A] (activity concentration for exempt material) or A (activity limit for exempt consignment) value, as appropriate, for the radionuclides in each group may be used in applying the formulas in paragraphs (d)(6) and (d)(7) of this section. Groups may be based on the total alpha activity and the total beta/gamma activity when these are known, using the lowest [A] or A values for the alpha emitters or beta/gamma emitters, respectively.

(g) *Shipping papers and labeling.* For mixtures of radionuclides, the radionuclides (n) that must be shown on shipping papers and labels in accordance with §§ 172.203 and 172.403 of this subchapter, respectively, must be determined on the basis of the following formula:

$$\sum_{i=1}^{n} \frac{a_{(i)}}{A_{(i)}} \geq 0.95 \sum_{i=1}^{n+m} \frac{a_{(i)}}{A_{(i)}}$$

Where:

n + m represents all the radionuclides in the mixture;

m are the radionuclides that do not need to be considered;

$a_{(i)}$ is the activity of radionuclide i in the mixture; and

$A_{(i)}$ is the A_1 or A_2 value, as appropriate for radionuclide i.

(h) Tables 7 and 8 are as follows:

TABLE 7.—GENERAL VALUES FOR A_1 AND A_2

Radioactive contents	A_1		A_2	
	(TBq)	(Ci)	(TBq)	(Ci)
1. Only beta or gamma emitting nuclides are known to be present	1×10^{-1}	2.7×10^{0}	2×10^{-2}	5.4×10^{-1}
2. Only alpha emitting nuclides are known to be present	2×10^{-1}	5.4×10^{0}	9×10^{-5}	2.4×10^{-3}
3. No relevant data are available	1×10^{-3}	2.7×10^{-2}	9×10^{-5}	2.4×10^{-3}

TABLE 8.—GENERAL EXEMPTION VALUES

Radioactive contents	Activity concentration for exempt material		Activity limits for exempt consignments	
	(Bq/g)	(Ci/g)	(Bq)	Ci)
1. Only beta or gamma emitting nuclides are known to be present	1×10^{1}	2.7×10^{-10}	1×10^{4}	2.7×10^{-7}
2. Only alpha emitting nuclides are known to be present	1×10^{-1}	2.7×10^{-12}	1×10^{3}	2.7×10^{-8}
3. No relevant data are available	1×10^{-1}	2.7×10^{-12}	1×10^{3}	2.7×10^{-8}

■ 30. Section 173.435 is revised to read as follows:

§ 173.435 Table of A_1 and A_2 values for radionuclides.

The table of A_1 and A_2 values for radionuclides is as follows:

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Ac-225 (a)	Actinium (89)	8.0×10^{-1}	2.2×10^{1}	6.0×10^{-3}	1.6×10^{-1}	2.1×10^{3}	5.8×10^{4}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
Ac-227 (a)		9.0×10^{-1}	2.4×10^{1}	9.0×10^{-5}	2.4×10^{-3}	2.7	7.2×10^{1}
Ac-228		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	8.4×10^{4}	2.2×10^{6}
Ag-105	Silver (47)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.1×10^{3}	3.0×10^{4}
Ag-108m (a)		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	9.7×10^{-1}	2.6×10^{1}
Ag-110m (a)		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.8×10^{2}	4.7×10^{3}
Ag-111		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	5.8×10^{3}	1.6×10^{5}
Al-26	Aluminum (13)	1.0×10^{-1}	2.7	1.0×10^{-1}	2.7	7.0×10^{-4}	1.9×10^{-2}
Am-241	Americium (95)	1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.3×10^{-1}	3.4
Am-242m (a)		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	3.6×10^{-1}	1.0×10^{1}
Am-243 (a)		5.0	1.4×10^{2}	1.0×10^{-3}	2.7×10^{-2}	7.4×10^{-3}	2.0×10^{-1}
Ar-37	Argon (18)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.7×10^{3}	9.9×10^{4}
Ar-39		4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	1.3	3.4×10^{1}
Ar-41		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.5×10^{6}	4.2×10^{7}
As-72	Arsenic (33)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	6.2×10^{4}	1.7×10^{6}
As-73		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	8.2×10^{2}	2.2×10^{4}
As-74		1.0	2.7×10^{1}	9.0×10^{-1}	2.4×10^{1}	3.7×10^{3}	9.9×10^{4}
As-76		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.8×10^{4}	1.6×10^{6}
As-77		2.0×10^{1}	5.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	3.9×10^{4}	1.0×10^{6}
At-211 (a)	Astatine (85)	2.0×10^{1}	5.4×10^{2}	5.0×10^{-1}	1.4×10^{1}	7.6×10^{4}	2.1×10^{6}
Au-193	Gold (79)	7.0	1.9×10^{2}	2.0	5.4×10^{1}	3.4×10^{4}	9.2×10^{5}
Au-194		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.5×10^{4}	4.1×10^{5}
Au-195		1.0×10^{1}	2.7×10^{2}	6.0	1.6×10^{2}	1.4×10^{2}	3.7×10^{3}
Au-198		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.0×10^{3}	2.4×10^{5}
Au-199		1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	7.7×10^{3}	2.1×10^{5}
Ba-131 (a)	Barium (56)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.1×10^{3}	8.4×10^{4}
Ba-133		3.0	8.1×10^{1}	3.0	8.1×10^{1}	9.4	2.6×10^{2}
Ba-133m		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	2.2×10^{4}	6.1×10^{5}
Ba-140 (a)		5.0×10^{-1}	1.4×10^{1}	3.0×10^{-1}	8.1	2.7×10^{3}	7.3×10^{4}
Be-7	Beryllium (4)	2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	1.3×10^{4}	3.5×10^{5}
Be-10		4.0×10^{1}	1.1×10^{3}	6.0×10^{-1}	1.6×10^{1}	8.3×10^{-4}	2.2×10^{-2}
Bi-205	Bismuth (83)	7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.5×10^{-3}	4.2×10^{4}
Bi-206		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	3.8×10^{3}	1.0×10^{5}
Bi-207		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.9	5.2×10^{1}
Bi-210		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.6×10^{3}	1.2×10^{5}
Bi-210m (a)		6.0×10^{-1}	1.6×10^{1}	2.0×10^{-2}	5.4×10^{-1}	2.1×10^{-5}	5.7×10^{-4}
Bi-212 (a)		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	5.4×10^{5}	1.5×10^{7}
Bk-247	Berkelium (97)	8.0	2.2×10^{2}	8.0×10^{-4}	2.2×10^{-2}	3.8×10^{-2}	1.0
Bk-249 (a)		4.0×10^{1}	1.1×10^{3}	3.0×10^{-1}	8.1	6.1×10^{1}	1.6×10^{3}
Br-76	Bromine (35)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	9.4×10^{4}	2.5×10^{6}
Br-77		3.0	8.1×10^{1}	3.0	8.1×10^{1}	2.6×10^{4}	7.1×10^{5}
Br-82		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.0×10^{4}	1.1×10^{6}
C-11	Carbon (6)	1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.1×10^{7}	8.4×10^{8}
C-14		4.0×10^{1}	1.1×10^{3}	3.0	8.1×10^{1}	1.6×10^{-1}	4.5
Ca-41	Calcium (20)	Unlimited	Unlimited	Unlimited	Unlimited	3.1×10^{-3}	8.5×10^{-2}
Ca-45		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	6.6×10^{2}	1.8×10^{4}
Ca-47 (a)		3.0	8.1×10^{1}	3.0×10^{-1}	8.1	2.3×10^{4}	6.1×10^{5}
Cd-109	Cadmium (48)	3.0×10^{1}	8.1×10^{2}	2.0	5.4×10^{1}	9.6×10^{1}	2.6×10^{3}
Cd-113m		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	8.3	2.2×10^{2}
Cd-115 (a)		3.0	8.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.9×10^{4}	5.1×10^{5}
Cd-115m		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	9.4×10^{2}	2.5×10^{4}
Ce-139	Cerium (58)	7.0	1.9×10^{2}	2.0	5.4×10^{1}	2.5×10^{2}	6.8×10^{3}
Ce-141		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.1×10^{3}	2.8×10^{4}
Ce-143		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{4}	6.6×10^{5}
Ce-144 (a)		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.2×10^{2}	3.2×10^{3}
Cf-248	Californium (98)	4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	5.8×10^{1}	1.6×10^{3}
Cf-249		3.0	8.1×10^{1}	8.0×10^{-4}	2.2×10^{-2}	1.5×10^{-1}	4.1
Cf-250		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	4.0	1.1×10^{2}
Cf-251		7.0	1.9×10^{2}	7.0×10^{-4}	1.9×10^{-2}	5.9×10^{-2}	1.6
Cf-252 (h)		5.0×10^{-2}	1.4	3.0×10^{-3}	8.1×10^{-2}	2.0×10^{1}	5.4×10^{2}
Cf-253 (a)		4.0×10^{1}	1.1×10^{3}	4.0×10^{-2}	1.1	1.1×10^{3}	2.9×10^{4}
Cf-254		1.0×10^{-3}	2.7×10^{-2}	1.0×10^{-3}	2.7×10^{-2}	3.1×10^{2}	8.5×10^{3}
Cl-36	Chlorine (17)	1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{-3}	3.3×10^{-2}
Cl-38		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	4.9×10^{6}	1.3×10^{8}
Cm-240	Curium (96)	4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	7.5×10^{2}	2.0×10^{4}
Cm-241		2.0	5.4×10^{1}	1.0	2.7×10^{1}	6.1×10^{2}	1.7×10^{4}
Cm-242		4.0×10^{1}	1.1×10^{3}	1.0×10^{-2}	2.7×10^{-1}	1.2×10^{2}	3.3×10^{3}
Cm-243		9.0	2.4×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.9×10^{-3}	5.2×10^{1}
Cm-244		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	3.0	8.1×10^{1}
Cm-245		9.0	2.4×10^{2}	9.0×10^{-4}	2.4×10^{-2}	6.4×10^{-3}	1.7×10^{-1}
Cm-246		9.0	2.4×10^{2}	9.0×10^{-4}	2.4×10^{-2}	1.1×10^{-2}	3.1×10^{-1}
Cm-247 (a)		3.0	8.1×10^{1}	1.0×10^{-3}	2.7×10^{-2}	3.4×10^{-6}	9.3×10^{-5}
Cm-248		2.0×10^{-2}	5.4×10^{-1}	3.0×10^{-4}	8.1×10^{-3}	1.6×10^{-5}	4.2×10^{-3}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
Co-55	Cobalt (27)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.1×10^{5}	3.1×10^{6}
Co-56		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.1×10^{3}	3.0×10^{4}
Co-57		1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	3.1×10^{2}	8.4×10^{3}
Co-58		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.2×10^{3}	3.2×10^{4}
Co-58m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	2.2×10^{5}	5.9×10^{6}
Co-60		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.2×10^{1}	1.1×10^{3}
Cr-51	Chromium (24)	3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	3.4×10^{3}	9.2×10^{4}
Cs-129	Cesium (55)	4.0	1.1×10^{2}	4.0	1.1×10^{2}	2.8×10^{4}	7.6×10^{5}
Cs-131		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	3.8×10^{3}	1.0×10^{5}
Cs-132		1.0	2.7×10^{1}	1.0	2.7×10^{1}	5.7×10^{3}	1.5×10^{5}
Cs-134		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.8×10^{1}	1.3×10^{3}
Cs-134m		4.0×10^{1}	1.1×10^{3}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{5}	8.0×10^{6}
Cs-135		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	4.3×10^{-5}	1.2×10^{-3}
Cs-136		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.7×10^{3}	7.3×10^{4}
Cs-137 (a)		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.2	8.7×10^{1}
Cu-64	Copper (29)	6.0	1.6×10^{2}	1.0	2.7×10^{1}	1.4×10^{5}	3.9×10^{6}
Cu-67		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	2.8×10^{4}	7.6×10^{5}
Dy-159	Dysprosium (66)	2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	2.1×10^{2}	5.7×10^{3}
Dy-165		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{5}	8.2×10^{6}
Dy-166 (a)		9.0×10^{-1}	2.4×10^{1}	3.0×10^{-1}	8.1	8.6×10^{3}	2.3×10^{5}
Er-169	Erbium (68)	4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	3.1×10^{3}	8.3×10^{4}
Er-171		8.0×10^{-1}	2.2×10^{1}	5.0×10^{-1}	1.4×10^{1}	9.0×10^{4}	2.4×10^{6}
Eu-147	Europium (63)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.4×10^{3}	3.7×10^{4}
Eu-148		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.0×10^{2}	1.6×10^{4}
Eu-149		2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	3.5×10^{2}	9.4×10^{3}
Eu-150 (short lived).		2.0	5.4×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.1×10^{4}	1.6×10^{6}
Eu-150 (long lived).		7 x 10 – 1	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.1×10^{4}	1.6×10^{6}
Eu-152		1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.5	1.8×10^{2}
Eu-152m		8.0×10^{-1}	2.2×10^{1}	8.0×10^{-1}	2.2×10^{1}	8.2×10^{4}	2.2×10^{6}
Eu-154		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.8	2.6×10^{2}
Eu-155		2.0×10^{1}	5.4×10^{2}	3.0	8.1×10^{1}	1.8×10^{1}	4.9×10^{2}
Eu-156		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	2.0×10^{3}	5.5×10^{4}
F-18	Fluorine (9)	1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.5×10^{6}	9.5×10^{7}
Fe-52 (a)	Iron (26)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.7×10^{5}	7.3×10^{6}
Fe-55		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	8.8×10^{1}	2.4×10^{3}
Fe-59		9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	1.8×10^{3}	5.0×10^{4}
Fe-60 (a)		4.0×10^{1}	1.1×10^{3}	2.0×10^{-1}	5.4	7.4×10^{-4}	2.0×10^{-2}
Ga-67	Gallium (31)	7.0	1.9×10^{2}	3.0	8.1×10^{1}	2.2×10^{4}	6.0×10^{5}
Ga-68		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.5×10^{6}	4.1×10^{7}
Ga-72		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{5}	3.1×10^{6}
Gd-146 (a)	Gadolinium (64)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.9×10^{2}	1.9×10^{4}
Gd-148		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	1.2	3.2×10^{1}
Gd-153		1.0×10^{1}	2.7×10^{2}	9.0	2.4×10^{2}	1.3×10^{2}	3.5×10^{3}
Gd-159		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.9×10^{4}	1.1×10^{6}
Ge-68 (a)	Germanium (32)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.6×10^{2}	7.1×10^{3}
Ge-71		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.8×10^{3}	1.6×10^{5}
Ge-77		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.3×10^{5}	3.6×10^{6}
Hf-172 (a)	Hafnium (72)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.1×10^{1}	1.1×10^{3}
Hf-175		3.0	8.1×10^{1}	3.0	8.1×10^{1}	3.9×10^{2}	1.1×10^{4}
Hf-181		2.0	5.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.3×10^{2}	1.7×10^{4}
Hf-182		Unlimited	Unlimited	Unlimited	Unlimited	8.1×10^{-6}	2.2×10^{-4}
Hg-194 (a)	Mercury (80)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.3×10^{-1}	3.5
Hg-195m (a)		3.0	8.1×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.5×10^{4}	4.0×10^{5}
Hg-197		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	9.2×10^{3}	2.5×10^{5}
Hg-197m		1.0×10^{1}	2.7×10^{2}	4.0×10^{-1}	1.1×10^{1}	2.5×10^{4}	6.7×10^{5}
Hg-203		5.0	1.4×10^{2}	1.0	2.7×10^{1}	5.1×10^{2}	1.4×10^{4}
Ho-166	Holmium (67)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	2.6×10^{4}	7.0×10^{5}
Ho-166m		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.6×10^{-2}	1.8
I-123	Iodine (53)	6.0	1.6×10^{2}	3.0	8.1×10^{1}	7.1×10^{4}	1.9×10^{6}
I-124		1.0	2.7×10^{1}	1.0	2.7×10^{1}	9.3×10^{3}	2.5×10^{5}
I-125		2.0×10^{1}	5.4×10^{2}	3.0	8.1×10^{1}	6.4×10^{2}	1.7×10^{4}
I-126		2.0	5.4×10^{1}	1.0	2.7×10^{1}	2.9×10^{3}	8.0×10^{4}
I-129		Unlimited	Unlimited	Unlimited	Unlimited	6.5×10^{-6}	1.8×10^{-4}
I-131		3.0	8.1×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.6×10^{3}	1.2×10^{5}
I-132		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.8×10^{5}	1.0×10^{7}
I-133		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{4}	1.1×10^{6}
I-134		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	9.9×10^{5}	2.7×10^{7}
I-135 (a)		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.3×10^{5}	3.5×10^{6}
In-111	Indium (49)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	1.5×10^{4}	4.2×10^{5}
In-113m		4.0	1.1×10^{2}	2.0	5.4×10^{1}	6.2×10^{5}	1.7×10^{7}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
In-114m (a)		1.0×10^{1}	2.7×10^{2}	5.0×10^{-1}	1.4×10^{1}	8.6×10^{2}	2.3×10^{4}
In-115m		7.0	1.9×10^{2}	1.0	2.7×10^{1}	2.2×10^{5}	6.1×10^{6}
Ir-189 (a)	Iridium (77)	1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	1.9×10^{3}	5.2×10^{4}
Ir-190		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	2.3×10^{3}	6.2×10^{4}
Ir-192 (c)		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.4×10^{2}	9.2×10^{3}
Ir-194		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	3.1×10^{4}	8.4×10^{5}
K-40	Potassium (19)	9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	2.4×10^{-7}	6.4×10^{-6}
K-42		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	2.2×10^{5}	6.0×10^{6}
K-43		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{5}	3.3×10^{6}
Kr-81	Krypton (36)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	7.8×10^{-4}	2.1×10^{-2}
Kr-85		1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	1.5×10^{1}	3.9×10^{2}
Kr-85m		8.0	2.2×10^{2}	3.0	8.1×10^{1}	3.0×10^{5}	8.2×10^{6}
Kr-87		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.0×10^{6}	2.8×10^{7}
La-137	Lanthanum (57)	3.0×10^{1}	8.1×10^{2}	6.0	1.6×10^{2}	1.6×10^{-3}	4.4×10^{-2}
La-140		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	2.1×10^{4}	5.6×10^{5}
Lu-172	Lutetium (71)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{3}	1.1×10^{5}
Lu-173		8.0	2.2×10^{2}	8.0	2.2×10^{2}	5.6×10^{1}	1.5×10^{3}
Lu-174		9.0	2.4×10^{2}	9.0	2.4×10^{2}	2.3×10^{1}	6.2×10^{2}
Lu-174m		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	2.0×10^{2}	5.3×10^{3}
Lu-177		3.0×10^{1}	8.1×10^{2}	7.0×10^{-1}	1.9×10^{1}	4.1×10^{3}	1.1×10^{5}
Mg-28 (a)	Magnesium (12)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.0×10^{5}	5.4×10^{6}
Mn-52	Manganese (25)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.6×10^{4}	4.4×10^{5}
Mn-53		Unlimited	Unlimited	Unlimited	Unlimited	6.8×10^{-5}	1.8×10^{-3}
Mn-54		1.0	2.7×10^{1}	1.0	2.7×10^{1}	2.9×10^{2}	7.7×10^{3}
Mn-56		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	8.0×10^{5}	2.2×10^{7}
Mo-93	Molybdenum (42)	4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	4.1×10^{-2}	1.1
Mo-99 (a) (i)		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.8×10^{4}	4.8×10^{5}
N-13	Nitrogen (7)	9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	5.4×10^{7}	1.5×10^{9}
Na-22	Sodium (11)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.3×10^{2}	6.3×10^{3}
Na-24		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	3.2×10^{5}	8.7×10^{6}
Nb-93m	Niobium (41)	4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	8.8	2.4×10^{2}
Nb-94		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.9×10^{-3}	1.9×10^{-1}
Nb-95		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.5×10^{3}	3.9×10^{4}
Nb-97		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.9×10^{5}	2.7×10^{7}
Nd-147	Neodymium (60)	6.0	1.6×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{3}	8.1×10^{4}
Nd-149		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	4.5×10^{5}	1.2×10^{7}
Ni-59	Nickel (28)	Unlimited	Unlimited	Unlimited	Unlimited	3.0×10^{-3}	8.0×10^{-2}
Ni-63		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	2.1	57
Ni-65		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	7.1×10^{5}	1.9×10^{7}
Np-235	Neptunium (93)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.2×10^{1}	1.4×10^{3}
Np-236 (short-lived).		2.0×10^{1}	5.4×10^{2}	2.0	5.4×10^{1}	4.7×10^{-4}	1.3×10^{-2}
Np-236 (long-lived).		9.0×10^{0}	2.4×10^{2}	2.0×10^{-2}	5.4×10^{-1}	4.7×10^{-4}	1.3×10^{-2}
Np-237		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	2.6×10^{-5}	7.1×10^{-4}
Np-239		7.0	1.9×10^{2}	4.0×10^{-1}	1.1×10^{1}	8.6×10^{3}	2.3×10^{5}
Os-185	Osmium (76)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	2.8×10^{2}	7.5×10^{3}
Os-191		1.0×10^{1}	2.7×10^{2}	2.0	5.4×10^{1}	1.6×10^{3}	4.4×10^{4}
Os-191m		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	4.6×10^{4}	1.3×10^{6}
Os-193		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.0×10^{4}	5.3×10^{5}
Os-194 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.1×10^{1}	3.1×10^{2}
P-32	Phosphorus (15)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.1×10^{4}	2.9×10^{5}
P-33		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	5.8×10^{3}	1.6×10^{5}
Pa-230 (a)	Protactinium (91)	2.0	5.4×10^{1}	7.0×10^{-2}	1.9	1.2×10^{3}	3.3×10^{4}
Pa-231		4.0	1.1×10^{2}	4.0×10^{-4}	1.1×10^{-2}	1.7×10^{-3}	4.7×10^{-2}
Pa-233		5.0	1.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	7.7×10^{2}	2.1×10^{4}
Pb-201	Lead (82)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.2×10^{4}	1.7×10^{6}
Pb-202		4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	1.2×10^{-4}	3.4×10^{-3}
Pb-203		4.0	1.1×10^{2}	3.0	8.1×10^{1}	1.1×10^{4}	3.0×10^{5}
Pb-205		Unlimited	Unlimited	Unlimited	Unlimited	4.5×10^{-6}	1.2×10^{-4}
Pb-210 (a)		1.0	2.7×10^{1}	5.0×10^{-2}	1.4	2.8	7.6×10^{1}
Pb-212 (a)		7.0×10^{-1}	1.9×10^{1}	2.0×10^{-1}	5.4	5.1×10^{4}	1.4×10^{6}
Pd-103 (a)	Palladium (46)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	2.8×10^{3}	7.5×10^{4}
Pd-107		Unlimited	Unlimited	Unlimited	Unlimited	1.9×10^{-5}	5.1×10^{-4}
Pd-109		2.0	5.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	7.9×10^{4}	2.1×10^{6}
Pm-143	Promethium (61)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	1.3×10^{2}	3.4×10^{3}
Pm-144		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	9.2×10^{1}	2.5×10^{3}
Pm-145		3.0×10^{1}	8.1×10^{2}	1.0×10^{1}	2.7×10^{2}	5.2	1.4×10^{2}
Pm-147		4.0×10^{1}	1.1×10^{3}	2.0	5.4×10^{1}	3.4×10^{1}	9.3×10^{2}
Pm-148m (a)		8.0×10^{-1}	2.2×10^{1}	7.0×10^{-1}	1.9×10^{1}	7.9×10^{2}	2.1×10^{4}
Pm-149		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.5×10^{4}	4.0×10^{5}
Pm-151		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.7×10^{4}	7.3×10^{5}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
Po-210	Polonium (84)	4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	1.7×10^{2}	4.5×10^{3}
Pr-142	Praseodymium (59)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.3×10^{4}	1.2×10^{6}
Pr-143		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{3}	6.7×10^{4}
Pt-188 (a)	Platinum (78)	1.0	2.7×10^{1}	8.0×10^{-1}	2.2×10^{1}	2.5×10^{3}	6.8×10^{4}
Pt-191		4.0	1.1×10^{2}	3.0	8.1×10^{1}	8.7×10^{3}	2.4×10^{5}
Pt-193		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	1.4	3.7×10^{1}
Pt-193m		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	5.8×10^{3}	1.6×10^{5}
Pt-195m		1.0×10^{1}	2.7×10^{2}	5.0×10^{-1}	1.4×10^{1}	6.2×10^{3}	1.7×10^{5}
Pt-197		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.2×10^{4}	8.7×10^{5}
Pt-197m		1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.7×10^{5}	1.0×10^{7}
Pu-236	Plutonium (94)	3.0×10^{1}	8.1×10^{2}	3.0×10^{-3}	8.1×10^{-2}	2.0×10^{1}	5.3×10^{2}
Pu-237		2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	4.5×10^{2}	1.2×10^{4}
Pu-238		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	6.3×10^{-1}	1.7×10^{1}
Pu-239		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	2.3×10^{-3}	6.2×10^{-2}
Pu-240		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	8.4×10^{-3}	2.3×10^{-1}
Pu-241 (a)		4.0×10^{1}	1.1×10^{3}	6.0×10^{-2}	1.6	3.8	1.0×10^{2}
Pu-242		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.5×10^{-4}	3.9×10^{-3}
Pu-244 (a)		4.0×10^{-1}	1.1×10^{1}	1.0×10^{-3}	2.7×10^{-2}	6.7×10^{-7}	1.8×10^{-5}
Ra-223 (a)	Radium (88)	4.0×10^{-1}	1.1×10^{1}	7.0×10^{-3}	1.9×10^{-1}	1.9×10^{3}	5.1×10^{4}
Ra-224 (a)		4.0×10^{-1}	1.1×10^{1}	2.0×10^{-2}	5.4×10^{-1}	5.9×10^{3}	1.6×10^{5}
Ra-225 (a)		2.0×10^{-1}	5.4	4.0×10^{-3}	1.1×10^{-1}	1.5×10^{3}	3.9×10^{4}
Ra-226 (a)		2.0×10^{-1}	5.4	3.0×10^{-3}	8.1×10^{-2}	3.7×10^{-2}	1.0
Ra-228 (a)		6.0×10^{-1}	1.6×10^{1}	2.0×10^{-2}	5.4×10^{-1}	1.0×10^{1}	2.7×10^{2}
Rb-81	Rubidium (37)	2.0	5.4×10^{1}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{5}	8.4×10^{6}
Rb-83 (a)		2.0	5.4×10^{1}	2.0	5.4×10^{1}	6.8×10^{2}	1.8×10^{4}
Rb-84		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.8×10^{3}	4.7×10^{4}
Rb-86		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	3.0×10^{3}	8.1×10^{4}
Rb-87		Unlimited	Unlimited	Unlimited	Unlimited	3.2×10^{-9}	8.6×10^{-8}
Rb(nat)		Unlimited	Unlimited	Unlimited	Unlimited	6.7×10^{6}	1.6×10^{8}
Re-184	Rhenium (75)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.9×10^{2}	1.9×10^{4}
Re-184m		3.0	8.1×10^{1}	1.0	2.7×10^{1}	1.6×10^{2}	4.3×10^{3}
Re-186		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	6.9×10^{3}	1.9×10^{5}
Re-187		Unlimited	Unlimited	Unlimited	Unlimited	1.4×10^{-9}	3.8×10^{-8}
Re-188		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.6×10^{4}	9.8×10^{5}
Re-189 (a)		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{4}	6.8×10^{5}
Re(nat)		Unlimited	Unlimited	Unlimited	Unlimited	0.0	2.4×10^{-8}
Rh-99	Rhodium (45)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.0×10^{3}	8.2×10^{4}
Rh-101		4.0	1.1×10^{2}	3.0	8.1×10^{1}	4.1×10^{1}	1.1×10^{3}
Rh-102		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	4.5×10^{1}	1.2×10^{3}
Rh-102m		2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.3×10^{2}	6.2×10^{3}
Rh-103m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	1.2×10^{6}	3.3×10^{7}
Rh-105		1.0×10^{1}	2.7×10^{2}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{4}	8.4×10^{5}
Rn-222 (a)	Radon (86)	3.0×10^{-1}	8.1	4.0×10^{-3}	1.1×10^{-1}	5.7×10^{3}	1.5×10^{5}
Ru-97	Ruthenium (44)	5.0	1.4×10^{2}	5.0	1.4×10^{2}	1.7×10^{4}	4.6×10^{5}
Ru-103 (a)		2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.2×10^{3}	3.2×10^{4}
Ru-105		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{5}	6.7×10^{6}
Ru-106 (a)		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.2×10^{2}	3.3×10^{3}
S-35	Sulphur (16)	4.0×10^{1}	1.1×10^{3}	3.0	8.1×10^{1}	1.6×10^{3}	4.3×10^{4}
Sb-122	Antimony (51)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.5×10^{4}	4.0×10^{5}
Sb-124		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	6.5×10^{2}	1.7×10^{4}
Sb-125		2.0	5.4×10^{1}	1.0	2.7×10^{1}	3.9×10^{1}	1.0×10^{3}
Sb-126		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.1×10^{3}	8.4×10^{4}
Sc-44	Scandium (21)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.7×10^{5}	1.8×10^{7}
Sc-46		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.3×10^{3}	3.4×10^{4}
Sc-47		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	3.1×10^{4}	8.3×10^{5}
Sc-48		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.5×10^{4}	1.5×10^{6}
Se-75	Selenium (34)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	5.4×10^{2}	1.5×10^{4}
Se-79		4.0×10^{1}	1.1×10^{3}	2.0	5.4×10^{1}	2.6×10^{-3}	7.0×10^{-2}
Si-31	Silicon (14)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.4×10^{6}	3.9×10^{7}
Si-32		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	3.9	1.1×10^{2}
Sm-145	Samarium (62)	1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	9.8×10^{1}	2.6×10^{3}
Sm-147		Unlimited	Unlimited	Unlimited	Unlimited	8.5×10^{-1}	2.3×10^{-8}
Sm-151		4.0×10^{1}	1.1×10^{3}	1.0×10^{1}	2.7×10^{2}	9.7×10^{-1}	2.6×10^{1}
Sm-153		9.0	2.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.6×10^{4}	4.4×10^{5}
Sn-113 (a)	Tin (50)	4.0	1.1×10^{2}	2.0	5.4×10^{1}	3.7×10^{2}	1.0×10^{4}
Sn-117m		7.0	1.9×10^{2}	4.0×10^{-1}	1.1×10^{1}	3.0×10^{3}	8.2×10^{4}
Sn-119m		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	1.4×10^{2}	3.7×10^{3}
Sn-121m (a)		4.0×10^{1}	1.1×10^{3}	9.0×10^{-1}	2.4×10^{1}	2.0	5.4×10^{1}
Sn-123		8.0×10^{-1}	2.2×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{2}	8.2×10^{3}
Sn-125		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.0×10^{3}	1.1×10^{5}
Sn-126 (a)		6.0×10^{-1}	1.6×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.0×10^{-3}	2.8×10^{-2}
Sr-82 (a)	Strontium (38)	2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	2.3×10^{3}	6.2×10^{4}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Sr-85		2.0	5.4×10^{1}	2.0	5.4×10^{1}	8.8×10^{2}	2.4×10^{4}
Sr-85m		5.0	1.4×10^{2}	5.0	1.4×10^{2}	1.2×10^{6}	3.3×10^{7}
Sr-87m		3.0	8.1×10^{1}	3.0	8.1×10^{1}	4.8×10^{5}	1.3×10^{7}
Sr-89		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.1×10^{3}	2.9×10^{4}
Sr-90 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.1	1.4×10^{2}
Sr-91 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.3×10^{5}	3.6×10^{6}
Sr-92 (a)		1.0	2.7×10^{1}	3.0×10^{-1}	8.1	4.7×10^{5}	1.3×10^{7}
T(H-3)	Tritium (1)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.6×10^{2}	9.7×10^{3}
Ta-178 (long-lived).	Tantalum (73)	1.0	2.7×10^{1}	8.0×10^{-1}	2.2×10^{1}	4.2×10^{6}	1.1×10^{8}
Ta-179		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	4.1×10^{1}	1.1×10^{3}
Ta-182		9.0×10^{-1}	2.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.3×10^{2}	6.2×10^{3}
Tb-157	Terbium (65)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.6×10^{-1}	1.5×10^{1}
Tb-158		1.0	2.7×10^{1}	1.0	2.7×10^{1}	5.6×10^{-1}	1.5×10^{1}
Tb-160		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{2}	1.1×10^{4}
Tc-95m (a)	Technetium (43)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	8.3×10^{2}	2.2×10^{4}
Tc-96		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.2×10^{4}	3.2×10^{5}
Tc-96m (a)		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.4×10^{6}	3.8×10^{7}
Tc-97		Unlimited	Unlimited	Unlimited	Unlimited	5.2×10^{-5}	1.4×10^{-3}
Tc-97m		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	5.6×10^{2}	1.5×10^{4}
Tc-98		8.0×10^{-1}	2.2×10^{1}	7.0×10^{-1}	1.9×10^{1}	3.2×10^{-5}	8.7×10^{-4}
Tc-99		4.0×10^{1}	1.1×10^{3}	9.0×10^{-1}	2.4×10^{1}	6.3×10^{-4}	1.7×10^{-2}
Tc-99m		1.0×10^{1}	2.7×10^{2}	4.0	1.1×10^{2}	1.9×10^{5}	5.3×10^{6}
Te-121	Tellurium (52)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.4×10^{3}	6.4×10^{4}
Te-121m		5.0	1.4×10^{2}	3.0	8.1×10^{1}	2.6×10^{2}	7.0×10^{3}
Te-123m		8.0	2.2×10^{2}	1.0	2.7×10^{1}	3.3×10^{2}	8.9×10^{3}
Te-125m		2.0×10^{1}	5.4×10^{2}	9.0×10^{-1}	2.4×10^{1}	6.7×10^{2}	1.8×10^{4}
Te-127		2.0×10^{1}	5.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	9.8×10^{4}	2.6×10^{6}
Te-127m (a)		2.0×10^{1}	5.4×10^{2}	5.0×10^{-1}	1.4×10^{1}	3.5×10^{2}	9.4×10^{3}
Te-129		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	7.7×10^{5}	2.1×10^{7}
Te-129m (a)		8.0×10^{-1}	2.2×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{3}	3.0×10^{4}
Te-131m (a)		7.0×10^{-1}	1.9×10^{1}	5.0×10^{-1}	1.4×10^{1}	3.0×10^{3}	8.0×10^{5}
Te-132 (a)		5.0×10^{-1}	1.4×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{4}	8.0×10^{5}
Th-227	Thorium (90)	1.0×10^{1}	2.7×10^{2}	5.0×10^{-3}	1.4×10^{-1}	1.1×10^{3}	3.1×10^{4}
Th-228 (a)		5.0×10^{-1}	1.4×10^{1}	1.0×10^{-3}	2.7×10^{-2}	3.0×10^{1}	8.2×10^{2}
Th-229		5.0	1.4×10^{2}	5.0×10^{-4}	1.4×10^{-2}	7.9×10^{-3}	2.1×10^{-1}
Th-230		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	7.6×10^{-4}	2.1×10^{-2}
Th-231		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.0×10^{4}	5.3×10^{5}
Th-232		Unlimited	Unlimited	Unlimited	Unlimited	4.0×10^{-9}	1.1×10^{-7}
Th-234 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	8.6×10^{2}	2.3×10^{4}
Th(nat)		Unlimited	Unlimited	Unlimited	Unlimited	8.1×10^{-9}	2.2×10^{-7}
Ti-44 (a)	Titanium (22)	5.0×10^{-1}	1.4×10^{1}	4.0×10^{-1}	1.1×10^{1}	6.4	1.7×10^{2}
Tl-200	Thallium (81)	9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	2.2×10^{4}	6.0×10^{5}
Tl-201		1.0×10^{1}	2.7×10^{2}	4.0	1.1×10^{2}	7.9×10^{3}	2.1×10^{5}
Tl-202		2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.0×10^{3}	5.3×10^{4}
Tl-204		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	1.7×10^{1}	4.6×10^{2}
Tm-167	Thulium (69)	7.0	1.9×10^{2}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{3}	8.5×10^{4}
Tm-170		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.2×10^{2}	6.0×10^{3}
Tm-171		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}
U-230 (fast lung absorption) (a)(d).	Uranium (92)	4.0×10^{1}	1.1×10^{3}	1.0×10^{-1}	2.7	1.0×10^{3}	2.7×10^{4}
U-230 (medium lung absorption) (a)(e).		4.0×10^{1}	1.1×10^{3}	4.0×10^{-3}	1.1×10^{-1}	1.0×10^{3}	2.7×10^{4}
U-230 (slow lung absorption) (a)(f).		3.0×10^{1}	8.1×10^{2}	3.0×10^{-3}	8.1×10^{-2}	1.0×10^{3}	2.7×10^{4}
U-232 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	1.0×10^{-2}	2.7×10^{-1}	8.3×10^{-1}	2.2×10^{1}
U-232 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	7.0×10^{-3}	1.9×10^{-1}	8.3×10^{-1}	2.2×10^{1}
U-232 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	8.3×10^{-1}	2.2×10^{1}
U-233 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	9.0×10^{-2}	2.4	3.6×10^{-4}	9.7×10^{-3}
U-233 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	3.6×10^{-4}	9.7×10^{-3}

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
U-233 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	3.6×10^{-4}	9.7×10^{-3}
U-234 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	9.0×10^{-2}	2.4	2.3×10^{-4}	6.2×10^{-3}
U-234 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.3×10^{-4}	6.2×10^{-3}
U-234 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	2.3×10^{-4}	6.2×10^{-3}
U-235 (all lung absorption types) (a),(d),(e),(f).		Unlimited	Unlimited	Unlimited	Unlimited	8.0×10^{-8}	2.2×10^{-6}
U-236 (fast lung absorption) (d).		Unlimited	Unlimited	Unlimited	Unlimited	2.4×10^{-6}	6.5×10^{-5}
U-236 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.4×10^{-6}	6.5×10^{-5}
U-236 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	2.4×10^{-6}	6.5×10^{-5}
U-238 (all lung absorption types) (d),(e),(f).		Unlimited	Unlimited	Unlimited	Unlimited	1.2×10^{-8}	3.4×10^{-7}
U (nat)		Unlimited	Unlimited	Unlimited	Unlimited	2.6×10^{-8}	7.1×10^{-7}
U (enriched to 20% or less)(g).		Unlimited	Unlimited	Unlimited	Unlimited	see § 173.434	see § 173.434
U (dep)		Unlimited	Unlimited	Unlimited	Unlimited	see § 173.434	see § 173.434
V-48	Vanadium (23)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	6.3×10^{3}	1.7×10^{5}
V-49		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.0×10^{2}	8.1×10^{3}
W-178 (a)	Tungsten (74)	9.0	2.4×10^{2}	5.0	1.4×10^{2}	1.3×10^{3}	3.4×10^{4}
W-181		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	2.2×10^{2}	6.0×10^{3}
W-185		4.0×10^{1}	1.1×10^{3}	8.0×10^{-1}	2.2×10^{1}	3.5×10^{2}	9.4×10^{3}
W-187		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.6×10^{4}	7.0×10^{5}
W-188 (a)		4.0×10^{-1}	1.1×10^{1}	3.0×10^{-1}	8.1	3.7×10^{2}	1.0×10^{4}
Xe-122 (a)	Xenon (54)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.8×10^{4}	1.3×10^{6}
Xe-123		2.0	5.4×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.4×10^{5}	1.2×10^{7}
Xe-127		4.0	1.1×10^{2}	2.0	5.4×10^{1}	1.0×10^{3}	2.8×10^{4}
Xe-131m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.1×10^{3}	8.4×10^{4}
Xe-133		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	6.9×10^{3}	1.9×10^{5}
Xe-135		3.0	8.1×10^{1}	2.0	5.4×10^{1}	9.5×10^{4}	2.6×10^{6}
Y-87 (a)	Yttrium (39)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.7×10^{4}	4.5×10^{5}
Y-88		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	5.2×10^{2}	1.4×10^{4}
Y-90		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.0×10^{4}	5.4×10^{5}
Y-91		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.1×10^{2}	2.5×10^{4}
Y-91m		2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.5×10^{6}	4.2×10^{7}
Y-92		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	3.6×10^{5}	9.6×10^{6}
Y-93		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.2×10^{5}	3.3×10^{6}
Yb-169	Ytterbium (70)	4.0	1.1×10^{2}	1.0	2.7×10^{1}	8.9×10^{2}	2.4×10^{4}
Yb-175		3.0×10^{1}	8.1×10^{2}	9.0×10^{-1}	2.4×10^{1}	6.6×10^{3}	1.8×10^{5}
Zn-65	Zinc (30)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.0×10^{2}	8.2×10^{3}
Zn-69		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.8×10^{6}	4.9×10^{7}
Zn-69m (a)		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{5}	3.3×10^{6}
Zr-88	Zirconium (40)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	6.6×10^{2}	1.8×10^{4}
Zr-93		Unlimited	Unlimited	Unlimited	Unlimited	9.3×10^{-5}	2.5×10^{-3}
Zr-95 (a)		2.0	5.4×10^{1}	8.0×10^{-1}	2.2×10^{1}	7.9×10^{2}	2.1×10^{4}
Zr-97 (a)		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	7.1×10^{4}	1.9×10^{6}

[a] A_1 and/or A_2 values include contributions from daughter nuclides with half-lives less than 10 days.

[b] [Reserved]

[c] The quantity may be determined from a measurement of the rate of decay or a measurement of the radiation level at a prescribed distance from the source.

[d] These values apply only to compounds of uranium that take the chemical form of UF_6, UO_2F_2 and $UO_2(NO_3)_2$ in both normal and accident conditions of transport.

[e] These values apply only to compounds of uranium that take the chemical form of UO_3, UF_4, UCl_4 and hexavalent compounds in both normal and accident conditions of transport.

[f] These values apply to all compounds of uranium other than those specified in notes (d) and (e) of this table.

[g] These values apply to unirradiated uranium only.

[h] A_1 = 0.1 TBq (2.7 Ci) and A_2 = 0.001 TBq (0.027 Ci) for Cf-252 for domestic use.

[i] A_2 = 0.74 TBq (20 Ci) for Mo-99 for domestic use.

■ 31. A new § 173.436 is added to read as follows:

§ 173.436 Exempt material activity concentrations and exempt consignment activity limits for radionuclides.

The Table of Exempt material activity concentrations and exempt consignment activity limits for radionuclides is as follows:

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Ac-225	Actinium (89)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Ac-227		1.0×10^{-1}	2.7×10^{-12}	1.0×10^{3}	2.7×10^{-8}
Ac-228		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-105	Silver (47)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ag-108m (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-110m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-111		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Al-26	Aluminum (13)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Am-241	Americium (95)	1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Am-242m (b)		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Am-243 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Ar-37	Argon (18)	1.0×10^{6}	2.7×10^{-5}	1.0×10^{8}	2.7×10^{-3}
Ar-39		1.0×10^{7}	2.7×10^{-4}	1.0×10^{4}	2.7×10^{-7}
Ar-41		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
As-72	Arsenic (33)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
As-73		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
As-74		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
As-76		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
As-77		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
At-211	Astatine (85)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Au-193	Gold (79)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Au-194		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Au-195		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Au-198		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Au-199		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-131	Barium (56)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-133		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-133m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-140 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Be-7	Beryllium (4)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Be-10		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Bi-205	Bismuth (83)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Bi-206		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bi-207		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Bi-210		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Bi-210m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bi-212 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bk-247	Berkelium (97)	1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Bk-249		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Br-76	Bromine (35)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Br-77		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Br-82		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
C-11	Carbon (6)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
C-14		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Ca-41	Calcium (20)	1.0×10^{5}	2.7×10^{-6}	1.0×10^{7}	2.7×10^{-4}
Ca-45		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Ca-47		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Cd-109	Cadmium (48)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Cd-113m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Cd-115		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cd-115m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Ce-139	Cerium (58)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ce-141		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ce-143		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ce-144 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cf-248	Californium (98)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-249		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cf-250		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-251		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cf-252		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-253		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cf-254		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cl-36	Chlorine (17)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Cl-38		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Cm-240	Curium (96)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cm-241		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cm-242		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cm-243		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Cm-244		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cm-245		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cm-246		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cm-247		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Cm-248		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Co-55	Cobalt (27)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Co-56		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Co-57		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Co-58		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Co-58m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Co-60		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cr-51	Chromium (24)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Cs-129	Cesium (55)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cs-131		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Cs-132		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cs-134		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cs-134m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Cs-135		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Cs-136		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cs-137 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cu-64	Copper (29)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cu-67		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Dy-159	Dysprosium (66)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Dy-165		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Dy-166		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Er-169	Erbium (68)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Er-171		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-147	Europium (63)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-148		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-149		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Eu-150 (short lived)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Eu-150 (long lived)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-152		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-152m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-154		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-155		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Eu-156		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
F-18	Fluorine (9)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-52	Iron (26)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-55		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Fe-59		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-60		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ga-67	Gallium (31)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ga-68		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ga-72		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Gd-146	Gadolinium (64)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Gd-148		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Gd-153		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Gd-159		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Ge-68	Germanium (32)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ge-71		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Ge-77		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Hf-172	Hafnium (72)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hf-175		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hf-181		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hf-182		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-194	Mercury (80)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hg-195m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-197		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Hg-197m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-203		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ho-166	Holmium (67)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Ho-166m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-123	Iodine (53)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
I-124		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-125		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
I-126		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
I-129		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
I-131		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
I-132		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
I-133		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-134		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
I-135		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
In-111	Indium (49)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-113m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-114m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-115m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ir-189	Iridium (77)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ir-190		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ir-192		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Ir-194		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
K-40	Potassium (19)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
K-42		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
K-43		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Kr-81	Krypton (36)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Kr-85		1.0×10^{5}	2.7×10^{-6}	1.0×10^{4}	2.7×10^{-7}
Kr-85m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{10}	2.7×10^{-1}
Kr-87		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
La-137	Lanthanum (57)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
La-140		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Lu-172	Lutetium (71)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Lu-173		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-174		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-174m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-177		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Mg-28	Magnesium (12)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Mn-52	Manganese (25)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Mn-53		1.0×10^{4}	2.7×10^{-7}	1.0×10^{9}	2.7×10^{-2}
Mn-54		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Mn-56		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Mo-93	Molybdenum (42)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}
Mo-99		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
N-13	Nitrogen (7)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Na-22	Sodium (11)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Na-24		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Nb-93m	Niobium (41)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Nb-94		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nb-95		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nb-97		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nd-147	Neodymium (60)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Nd-149		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ni-59	Nickel (28)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Ni-63		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Ni-65		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Np-235	Neptunium (93)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Np-236 (short-lived)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Np-236 (long-lived)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Np-237 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Np-239		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Os-185	Osmium (76)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Os-191		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Os-191m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Os-193		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Os-194		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
P-32	Phosphorus (15)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
P-33		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Pa-230	Protactinium (91)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pa-231		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Pa-233		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Pb-201	Lead (82)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pb-202		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pb-203		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pb-205		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pb-210 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pb-212 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Pd-103	Palladium (46)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Pd-107		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Pd-109		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pm-143	Promethium (61)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pm-144		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pm-145		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pm-147		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pm-148m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pm-149		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pm-151		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Po-210	Polonium (84)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pr-142	Praseodymium (59)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Pr-143		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Pt-188	Platinum (78)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pt-191		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pt-193		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pt-193m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pt-195m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pt-197		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pt-197m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pu-236	Plutonium (94)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pu-237		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pu-238		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-239		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-240		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Pu-241		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Pu-242		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-244		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Ra-223 (b)	Radium (88)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ra-224 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ra-225		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ra-226 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Ra-228 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Rb-81	Rubidium (37)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rb-83		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Rb-84		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rb-86		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Rb-87		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Rb(nat)		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Re-184	Rhenium (75)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Re-184m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Re-186		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Re-187		1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Re-188		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Re-189		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Re(nat)		1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Rh-99	Rhodium (45)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rh-101		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Rh-102		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rh-102m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Rh-103m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Rh-105		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Rn-222 (b)	Radon (86)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{8}	2.7×10^{-3}
Ru-97	Ruthenium (44)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ru-103		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ru-105		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ru-106 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
S-35	Sulphur (16)	1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Sb-122	Antimony (51)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{4}	2.7×10^{-7}
Sb-124		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Sb-125		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sb-126		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sc-44	Scandium (21)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sc-46		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Sc-47		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sc-48		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Se-75	Selenium (34)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Se-79		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Si-31	Silicon (14)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Si-32		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sm-145	Samarium (62)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Sm-147		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Sm-151		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Sm-153		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sn-113	Tin (50)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-117m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sn-119m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-121m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-123		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sn-125		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Sn-126		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-82	Strontium (38)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-85		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sr-85m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Sr-87m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sr-89		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sr-90 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{4}	2.7×10^{-7}
Sr-91		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-92		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
T(H-3)	Tritium (1)	1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Ta-178 (long-lived)	Tantalum (73)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ta-179		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Ta-182		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Tb-157	Terbium (65)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Tb-158		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tb-160		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-95m	Technetium (43)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-96		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-96m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Tc-97		1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}
Tc-97m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Tc-98		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-99		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Tc-99m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Te-121	Tellurium (52)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Te-121m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Te-123m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Te-125m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Te-127		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Te-127m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Te-129		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Te-129m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Te-131m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Te-132		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Th-227	Thorium (90)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Th-228 (b)		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Th-229 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Th-230		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Th-231		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Th-232		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Th-234 (b)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Th (nat) (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Ti-44	Titanium (22)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Tl-200	Thallium (81)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tl-201		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tl-202		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tl-204		1.0×10^{4}	2.7×10^{-7}	1.0×10^{4}	2.7×10^{-7}
Tm-167	Thulium (69)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tm-170		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Tm-171		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
U-230 (fast lung absorption) (b),(d).	Uranium (92)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-230 (medium lung absorption) (e).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-230 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-232 (fast lung absorption) (b),(d).		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
U-232 (medium lung absorption) (e).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-232 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
U-233 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-233 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-233 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-234 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-234 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-234 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-235 (all lung absorption types) (b),(d),(e),(f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-236 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-236 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-236 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-238 (all lung absorption types) (b),(d),(e),(f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U (nat) (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
U (enriched to 20% or less)(g).		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
U (dep)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
V-48	Vanadium (23)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
V-49		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
W-178	Tungsten (74)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
W-181		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
W-185		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
W-187		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
W-188		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Xe-122	Xenon (54)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Xe-123		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Xe-127		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Xe-131m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{4}	2.7×10^{-7}
Xe-133		1.0×10^{3}	2.7×10^{-8}	1.0×10^{4}	2.7×10^{-7}
Xe-135		1.0×10^{3}	2.7×10^{-8}	1.0×10^{10}	2.7×10^{-1}
Y-87	Yttrium (39)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Y-88		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Y-90		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Y-91		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Y-91m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Y-92		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Y-93		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Yb-169	Ytterbium (70)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Yb-175		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Zn-65	Zinc (30)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Zn-69		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Zn-69m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Zr-88	Zirconium (40)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Zr-93 (b)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Zr-95		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Zr-97 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}

[a] [Reserved]

[b] Parent nuclides and their progeny included in secular equilibrium are listed in the following:

Sr-90 Y-90
Zr-93 Nb-93m
Zr-97 Nb-97
Ru-106 Rh-106
Cs-137 Ba-137m
Ce-134 La-134
Ce-144 Pr-144
Ba-140 La-140
Bi-212 Tl-208 (0.36), Po-212 (0.64)
Pb-210 Bi-210, Po-210
Pb-212 Bi-212, Tl-208 (0.36), Po-212 (0.64)
Rn-220 Po-216
Rn-222 Po-218, Pb-214, Bi-214, Po-214
Ra-223 Rn-219, Po-215, Pb-211, Bi-211, Tl-207

Ra-224 Rn-220, Po-216, Pb-212, Bi-212, Tl-208(0.36), Po-212 (0.64)
Ra-226 Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
Ra-228 Ac-228
Th-226 Ra-222, Rn-218, Po-214
Th-228 Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-229 Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
Th-nat Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-234 Pa-234m
U-230 Th-226, Ra-222, Rn-218, Po-214
U-232 Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
U-235 Th-231
U-238 Th-234, Pa-234m
U-nat Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
U-240 Np-240m
Np-237 Pa-233
Am-242m Am-242
Am-243 Np-239

[c] [Reserved]

[d] These values apply only to compounds of uranium that take the chemical form of UF_6, UO_2F_2 and $UO_2(NO_3)_2$ in both normal and accident conditions of transport.

[e] These values apply only to compounds of uranium that take the chemical form of UO_3, UF_4, UCl_4 and hexavalent compounds in both normal and accident conditions of transport.

[f] These values apply to all compounds of uranium other than those specified in notes (d) and (e) of this table.

[g] These values apply to unirradiated uranium only.

■ 32. In § 173.441, the section title is revised, paragraph (d) is redesignated as paragraph (e) and revised and a new paragraph (d) is added to read as follows:

§ 173.441 Radiation level limitations and exclusive use provisions.

* * * * *

(d) Conveyance limits on the sum of package transport indices are as follows:

(1) Except for shipments by cargo aircraft only or by seagoing vessel, the sum of transport indices for a non-exclusive use shipment may not exceed 50.

(2) Where a consignment is transported under exclusive use, there is no limit on the sum of the transport indices aboard a single conveyance. The conditions of paragraphs (b)(2), (b)(3), (b)(4) and (c) must be met.

(3) Provisions for shipments of Class 7 (radioactive) materials by air are described in §§ 175.700–175.705 of this subchapter.

(4) Provisions for shipment of Class 7 (radioactive) materials by vessel are described in §§ 176.700–176.720 of this subchapter.

(e) A package exceeding the maximum surface radiation level or maximum transport index prescribed in paragraph (a) of this section may not be transported by aircraft.

■ 33. In § 173.443, paragraphs (a)(1) and (a)(2) are revised to read as follows:

§ 173.443 Contamination control.

(a) * * *

(1) Wiping an area of 300 cm^2 of the surface concerned with an absorbent material, using moderate pressure, and measuring the activity on the wiping material. Sufficient measurements must be taken in the most appropriate locations to yield a representative assessment of the non-fixed contamination levels. The amount of radioactivity measured on any single wiping material, divided by the surface area wiped and divided by the efficiency of the wipe procedure (the fraction of removable contamination transferred from the surface to the absorbent material), may not exceed the limits set forth in Table 9 at any time during transport. For this purpose the actual wipe efficiency may be used, or the wipe efficiency may be assumed to be 0.10; or

(2) Alternatively, the level of non-fixed radioactive contamination may be determined by using other methods of equal or greater efficiency.

Table 9 is as follows:

TABLE 9.—NON-FIXED EXTERNAL RADIOACTIVE CONTAMINATION LIMITS FOR PACKAGES

Contaminant	Maximum permissible limits		
	Bq/cm^2	uCi/cm^2	dpm/cm^2
1. Beta and gamma emitters and low toxicity alpha emitters	4	10^{-4}	220
2. All other alpha emitting radionuclides	0.4	10^{-5}	22

* * * * *

■ 34. In § 173.447, paragraphs (a) and (b) are revised to read as follows:

§ 173.447 Storage during transportation—general requirements.

* * * * *

(a) The number of packages and overpacks bearing FISSILE labels stored in any one storage area, such as a transit area, terminal building, storeroom, waterfront pier, or assembly yard, must be limited so that the total sum of the criticality safety indices in any individual group of such packages and overpacks does not exceed 50. Groups of such packages and overpacks must be stored so as to maintain a spacing of at least 6 m (20 feet) from all other groups of such packages and overpacks.

(b) Storage requirements for Class 7 (radioactive) material transported in vessels are described in subpart M of part 176 of this subchapter.

■ 35. Section 173.448 is revised to read as follows:

§ 173.448 General transportation requirements.

(a) Each shipment of Class 7 (radioactive) materials must be secured to prevent shifting during normal transportation conditions.

(b) Except as provided in §§ 174.81, 176.83, and 177.848 of this subchapter, or as otherwise required by the Competent Authority in the applicable certificate, a package or overpack of Class 7 (radioactive) materials may be carried among packaged general cargo without special stowage provisions, if—

(1) The heat output in watts does not exceed 0.1 times the minimum package dimension in centimeters; or

(2) The average surface heat flux of the package or overpack does not exceed 15 watts per square meter and the immediately surrounding cargo is not in sacks or bags or otherwise in a form that would seriously impede air circulation for heat removal.

(c) Packages or overpacks bearing labels prescribed in § 172.403 of this subchapter may not be carried in compartments occupied by passengers, except in those compartments exclusively reserved for couriers accompanying those packages.

(d) Mixing of different kinds of packages that include fissile packages is

authorized only in accordance with § 173.459.

(e) No person shall offer for transportation or transport aboard a passenger-carrying aircraft any single package or overpack with a transport index greater than 3.0.

(f) No person shall offer for transportation or transport aboard a passenger-carrying aircraft any Class 7 (radioactive) material unless that material is intended for use in, or incident to, research, medical diagnosis or treatment.

(g) If an overpack is used to consolidate individual packages or to enclose a single package of Class 7 (radioactive) materials, the package(s) must comply with the packaging, marking, and labeling requirements of this subchapter, and:

(1) The overpack must be labeled as prescribed in § 172.403(h) of this subchapter;

(2) The overpack must be marked as prescribed in subpart D of part 172 of this subchapter and § 173.25(a); and

(3) The transport index of the overpack may not exceed 3.0 for passenger-carrying aircraft shipments, or 10.0 for cargo-aircraft shipments.

■ 36. Section 173.453 is revised to read as follows:

§ 173.453 Fissile materials—exceptions.

Fissile materials meeting the requirements of at least one of the paragraphs (a) through (f) of this section are excepted from the requirements of this subpart for fissile materials, including the requirements of §§ 173.457 and 173.459, but are subject to all other requirements of this subpart, except as noted.

(a) An individual package containing 2 grams or less of fissile material.

(b) An individual or bulk packaging containing 15 grams or less of fissile material provided the package has at least 200 grams of solid nonfissile material for every gram of fissile material. Lead, beryllium, graphite, and hydrogenous material enriched in deuterium may be present in the package but must not be included in determining the required mass for solid nonfissile material.

(c) Low concentrations of solid fissile material commingled with solid nonfissile material, provide that:

(1) There is at least 2000 grams of nonfissile material for every gram of fissile material, and

(2) There is no more than 180 grams of fissile material distributed within 360 kg of contiguous nonfissile material. Lead, beryllium, graphite, and hydrogenous material enriched in deuterium may be present in the package but must not be included in determining the required mass of solid nonfissile material.

(d) Uranium enriched in uranium-235 to a maximum of 1 percent by weight, and with total plutonium and uranium-233 content of up to 1 percent of the mass of uranium-235, provided that the mass of any beryllium, graphite, and hydrogenous material enriched in deuterium constitute less than 5 percent of the uranium mass.

(e) Liquid solutions of uranyl nitrate enriched in uranium-235 to a maximum of 2 percent by mass, with a total plutonium and uranium-233 content not exceeding 0.002 percent of the mass of uranium, and with a minimum nitrogen to uranium atomic ratio (N/U) of 2. The material must be contained in at least a DOT Type A package.

(f) Packages containing, individually, a total plutonium mass of not more than 1000 grams, of which not more than 20 percent by mass may consist of plutonium-239, plutonium-241, or any combination of these radionuclides.

■ 37. Section 173.457 is revised to read as follows:

§ 173.457 Transportation of fissile material packages—specific requirements.

(a) Packages containing fissile radioactive material which are not excepted under § 173.453 must be assigned by the offeror, in accordance with their definitions in § 173.403, a criticality safety index (CSI) and a transport index (TI).

(b) Fissile material packages and conveyances transporting fissile material packages must satisfy the radiation level restrictions of § 173.441.

(c) Except for consignments under exclusive use, the CSI of any package or overpack may not exceed 50. A fissile material package with CSI greater than 50 must be transported by exclusive use.

(d) For non-exclusive use shipments of fissile material packages, except on vessels, the total sum of CSI's in a freight container or on a conveyance may not exceed 50.

(e) For exclusive use shipments of fissile material packages, except on vessels, the total sum of CSI's in a freight container or on a conveyance may not exceed 100.

(f) Exclusive use shipments of fissile material packages must satisfy the radiation level and administrative requirements of § 173.441(b).

(g) The number of packages, overpacks and freight containers containing fissile material stored in transit in any one storage area must be so limited that the total sum of the CSI's in any group of packages, overpacks or freight containers does not exceed 50. Groups of packages shall be stored so as to maintain a spacing of a least 6 m (20 ft) between the closest surfaces of any two groups.

(h) Provisions for shipment by vessel of Class 7 (radioactive) material packages, including fissile material packages by vessel are described in §§ 176.700–176.720 of this subchapter.

■ 38. Section 173.459 is revised to read as follows:

§ 173.459 Mixing of fissile material packages with non-fissile or fissile-excepted material packages.

Mixing of fissile material packages with other types of Class 7 (radioactive) materials in any conveyance or storage location is authorized only if the TI of any single package does not exceed 10, the CSI of any single package does not exceed 50, and the provisions of §§ 173.441 and 173.457 are satisfied.

§ 173.465 [Amended]

■ 39. In § 173.465:

■ a. In paragraph (c)(1) the wording "Table 12" is revised to read "Table 10" each place it appears.

■ b. In the table heading the wording "TABLE 12" is revised to read "TABLE 10".

■ 40. In § 173.469, paragraphs (a)(4)(ii), (c)(1)(i), (c)(1)(iv), (c)(2)(i), (c)(2)(iv), and (d)(1) are revised to read as follows:

§ 173.469 Tests for special form Class 7 (radioactive) materials.

(a) * * *

(4) * * *

(ii) A specimen that comprises or simulates Class 7 (radioactive) material contained in a sealed capsule need not be subjected to the leaching assessment specified in paragraph (c) of this section provided it is alternatively subjected to any of the volumetric leakage assessment tests prescribed in the International Organization for Standardization document ISO 9978–1992(E): "Radiation protection—Sealed radioactive sources—Leakage test methods" (IBR, see § 171.7 of this subchapter).

* * * * *

(c) * * *

(1) * * *

(i) The specimen shall be immersed for seven days in water at ambient temperature. The volume of water to be used in the test shall be sufficient to ensure that at the end of the seven day test period the free volume of the unabsorbed and unreacted water remaining shall be at least 10% of the volume of the solid test sample itself. The water shall have an initial pH of 6–

8 and a maximum conductivity of 1 mS/m (10 micromho/cm) at 20°C (68°F).

* * * * *

(iv) The specimen shall then be kept for at least seven days in still air at not less than 30°C (86°F) and relative humidity not less than 90%.

* * * * *

(2) * * *

(i) The specimen shall be immersed in water at ambient temperature. The water shall have an initial pH of 6–8 and a maximum conductivity of 1 mS/m (10 micromho/cm) at 20°C (68°F).

* * * * *

(iv) The specimen shall then be kept for at least seven days in still air at not less than 30°C (86°F) and relative humidity not less than 90%.

* * * * *

(d) * * *

(1) The impact test and the percussion test of this section provided that the mass of the special form radioactive material is less than 200 g and it is alternatively subjected to the Class 4 impact test prescribed in ISO 2919, "Sealed Radioactive Sources—Classification" (IBR, see § 171.7 of this subchapter); and

* * * * *

■ 41. In § 173.471, the introductory text is revised to read as follows:

§ 173.471 Requirements for U.S. Nuclear Regulatory Commission approved packages.

In addition to the applicable requirements of the U.S. Nuclear Regulatory Commission (NRC) and other requirements of this subchapter, any offeror of a Type B(U), Type B(M), or fissile material package that has been approved by the NRC in accordance with 10 CFR part 71 must also comply with the following requirements:

* * * * *

■ 42. In § 173.473, the introductory text is revised to read as follows:

§ 173.473 Requirements for foreign-made packages.

In addition to other applicable requirements of this subchapter, each offeror of a foreign-made Type B(U), Type B(M), Type C, Type CF, Type H(U), Type H(M), or fissile material package for which a Competent Authority Certificate is required by IAEA's "Regulations for the Safe Transport of Radioactive Material, No. TS–R–1, " (IBR, see § 171.7 of this subchapter) shall also comply with the following requirements:

* * * * *

■ 43. In § 173.476, "; and" at the end of paragraph (c)(3) is removed and a semicolon is added in its place, paragraph (c)(4) is revised and a new paragraph (c)(5) is added to read as follows:

§ 173.476 Approval of special form Class 7 (radioactive) materials.

* * * * *

(c) * * *

(4) For the original request for a Competent Authority Certificate, evidence of a quality assurance program based on international, national or other standards, for the design, manufacture, testing, documentation, use, maintenance and inspection, as appropriate, of all special form material offered for transport by the requester; and

(5) A description of any proposed pre-shipment actions, such as leak testing, for use in the consignment of special form radioactive material for transport.

* * * * *

■ 44. A new § 173.477 is added to read as follows:

§ 173.477 Approval of packagings containing greater than 0.1 kg of non-fissile or fissile-excepted uranium hexafluoride.

(a) Each offeror of a package containing more than 0.1 kg of uranium hexafluoride must maintain on file for at least one year after the latest shipment, and provide to the Associate Administrator on request, a complete safety analysis, including documentation of any tests, demonstrating that the package meets the requirements of § 173.420. An IAEA Certificate of Competent Authority issued for the design of the packaging containing greater than 0.1 kg of non-fissile or fissile-excepted uranium hexafluoride may be used to satisfy this requirement.

(b) Prior to the first export shipment of a package containing greater than 0.1 kg of uranium hexafluoride from the United States, each offeror shall obtain a U.S. Competent Authority Certificate for the packaging design. For packagings manufactured outside the United States, each offeror shall comply with § 173.473.

(c) Each request for a U.S. Competent Authority Certificate as required by the IAEA regulations must be submitted in writing, in triplicate, by mail or other delivery service to the Associate Administrator. Alternatively, the request with any attached supporting documentation submitted in an appropriate format may be sent by facsimile (fax) to (202) 366–3753 or (202) 366–3650, or by electronic mail (e-mail) to *ramcert@rspa.dot.gov*. Each request is considered in the order in which it is received. To allow sufficient time for consideration, requests must be received at least 90 days before the requested effective date. Each request for a U.S. Competent Authority Certificate must include the following information:

(1) A safety analysis report which, at a minimum, provides a detailed description of the packaging and contents; a description of the manufacturing process used for the packaging; and details of the tests conducted and copy of their results, evidence based on calculative methods to show that the package is able to pass the tests, or other evidence that the package complies with § 173.420; and

(2) For the original request for a Competent Authority Certificate, evidence of a quality assurance program.

PART 174—CARRIAGE BY RAIL

■ 45. The authority citation for part 174 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 46. In § 174.700, paragraph (b) is revised, paragraphs (d) through (f) are redesignated as paragraphs (e) through (g), respectively, and a new paragraph (d) is added to read as follows:

§ 174.700 Special handling requirements for Class 7 (radioactive) materials.

* * * * *

(b) The number of packages of Class 7 (radioactive) materials that may be transported by rail car or stored at any single location is limited to a total transport index and a total criticality safety index (as defined in § 173.403 of this subchapter) of not more than 50 each. This provision does not apply to exclusive use shipments as described in §§ 173.403, 173.427, 173.441, and 173.457 of this subchapter.

* * * * *

(d) Each shipment of fissile material packages must conform to requirements of §§ 173.457 and 173.459.

* * * * *

PART 175—CARRIAGE BY AIRCRAFT

■ 47. The authority citation for part 175 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 48. In § 175.700, paragraph (a) is revised to read as follows:

§ 175.700 Special limitations and requirements for Class 7 (radioactive) materials.

(a) In addition to other requirements, no person may transport in a passenger-carrying aircraft any package required to be labeled in accordance with § 172.403

of this subchapter with a RADIOACTIVE YELLOW-II, RADIOACTIVE YELLOW-III or FISSILE label unless:

(1) For a package required to be labeled RADIOACTIVE YELLOW-III, the transport index does not exceed 3.0;

(2) For a package required to carry a FISSILE label, the criticality safety index does not exceed 3.0;

(3) The package is carried on the floor of the cargo compartment, or freight container;

(4) The package is carried in the aircraft in accordance with §§ 175.701 and 175.703;

(5) The total sum of transport indices of all packages in the aircraft does not exceed 50; and

(6) The total sum of criticality safety indices of all packages in the aircraft does not exceed 50.

* * * * *

■ 49. In § 175.702, paragraph (b) is revised to read as follows:

§ 175.702 Requirements for carriage of packages containing Class 7 (radioactive) materials in a cargo aircraft only.

* * * * *

(b) No person may transport in a cargo aircraft only any package required by § 172.403 of this subchapter to be labeled RADIOACTIVE YELLOW–II or RADIOACTIVE YELLOW–III or FISSILE unless:

(1) The total transport index for all of the packages does not exceed 50.0, the total criticality safety index for all of the packages does not exceed 50.0, and the package is carried in accordance with § 175.701(a); or

(2) The total transport index for all of the packages is greater than 50.0 but does not exceed 200.0, the total criticality safety index for all of the packages does not exceed 100.0. Any package, overpack or consignment having a criticality safety index greater than 50 must be transported under exclusive use; and:

(i) The transport index for any group of packages does not exceed 50.0;

(ii) Each group of packages is separated from every other group in the aircraft by not less than 6 m (20 feet), measured from the outer surface of each group; and

(iii) The separation distance between the surfaces of the Class 7 (radioactive) materials packages, overpacks or freight containers and any space occupied by—

(A) Humans is at least 9 m (30 feet); and

(B) Live animals is at least 0.5 m (20 inches) for journeys not exceeding 24 hours and at least 1.0 m (39 inches) for journeys longer than 24 hours.

■ 50. In § 175.703, paragraphs (b), (c), and (e) are revised to read as follows:

§ 175.703 Other special requirements for the acceptance and carriage of packages containing Class 7 (radioactive) materials.

* * * * *

(b) No person may accept for carriage in an aircraft packages of Class 7 (radioactive) materials, other than limited quantities, contained in an overpack unless they have been prepared for shipment in accordance with § 172.403(h) of this subchapter.

(c) Each shipment of fissile material packages must conform to the requirements of §§ 173.457 and 173.459 of this subchapter.

* * * * *

(e) Packages with radiation levels at the package surface or a transport index in excess of the limits specified in § 173.441(a) of this subchapter may not be transported by aircraft except under special arrangements approved by the Associate Administrator.

PART 176—CARRIAGE BY VESSEL

■ 51. The authority citation for part 176 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

§ 176.700 [Amended]

■ 52. In § 176.700, paragraph (c) is removed, and paragraphs (d) and (e) are redesignated as paragraphs (c) and (d), respectively.

■ 53. Section 176.704 is revised to read as follows:

§ 176.704 Requirements relating to transport indices and criticality safety indices.

(a) The sum of the transport indices (TI's) for all packages of Class 7 (radioactive) materials on board a vessel may not exceed the limits specified in Table IIIA of this section.

(b) For freight containers containing packages and overpacks of Class 7 (radioactive) materials, the radiation level may not exceed 2 mSv per hour (200 mrem per hour) at any point on the outside surface and 0.1 mSv per hour (10 mrem per hour) at 2 m (6.6 ft) from the outside surface of the freight container.

(c) The limitations specified in Table IIIA of this section do not apply to consignments of LSA–I material.

(d) The sum of the criticality safety indices (CSI's) for all packages and overpacks of fissile Class 7 (radioactive) materials on board a vessel may not exceed the limits specified in Table IIIB of this section.

(e) Each group of fissile Class 7 (radioactive) material packages and overpacks, containing a sum of CSIs no greater than 50 for a non-exclusive use shipment, or no greater than 100 for an exclusive use shipment, must be separated from all other groups containing fissile material packages and overpacks by a distance of at least 6 m (20 ft) at all times.

(f) The limitations specified in paragraphs (a) through (c) of this section do not apply when the entire vessel is reserved or chartered for use by a single offeror under exclusive use conditions if—

(1) The number of packages of fissile Class 7 (radioactive) material satisfies the individual package CSI limits of § 173.457 of this subchapter, except that the total sums of CSI's in the last column of Table IIIB of this section, including table note (d) apply;

(2) A radiation protection program for the shipment has been established and approved by the competent authority of the flag state of the vessel and, when requested, by the competent authority at each port of call;

(3) Stowage arrangements have been predetermined for the whole voyage, including any consignments to be loaded at ports of call;

(4) The loading, transport and unloading are to be supervised by persons qualified in the transport of radioactive material; and

(5) The entire shipment operation is approved by the Associate Administrator in advance.

(g) Table IIIA is as follows:

TABLE IIIA.—TI LIMITS FOR FREIGHT CONTAINERS AND CONVEYANCES

Type of freight container or conveyance	Limit on total sum of transport indices in a single freight container or aboard a conveyance	
	Not under exclusive use	Under exclusive use
I. Freight container—small	50	N/A.
II. Freight container—large	50	No limit.
III. Vessel: [a] [b]		
1. Hold, compartment or defined deck area:		
i. Packages, overpacks, small freight containers	50	No limit.
ii. Large freight containers	200	No limit.
2. Total vessel:		
i. Packages, overpacks, small freight containers	200	No limit.
ii. Large freight containers	No limit	No limit.

Notes:

[a] For vessels, the requirements in both 1 and 2 must be fulfilled.

[b] Packages or overpacks transported in or on a vehicle which are offered for transport in accordance with the provisions of § 173.441(b) of this subchapter may be transported by vessels provided that they are not removed from the vehicle at any time while on board the vessel.

(h) Table IIIB is as follows:

TABLE IIIB.—CSI LIMITS FOR FREIGHT CONTAINERS AND CONVEYANCES

Type of freight container or conveyance	Limit on total sum of criticality safety indices in a single freight container or aboard a conveyance	
	Not under exclusive use	Under exclusive use
I. Freight container—small	50	N/A.
II. Freight container—large	50	100.
III. Vessel: [a] [b]		
1. Hold, compartment or defined deck area:		
i. Packages, overpacks, small freight containers	50	100.
ii. Large freight containers	50	100.
2. Total vessel:		
i. Packages, overpacks, small freight containers	200 [c]	200 [d].
ii. Large freight containers	No limit [c]	No limit [d].

Notes:

[a] For vessels, the requirements in both 1 and 2 must be fulfilled.

[b] Packages or overpacks transported in or on a vehicle which are offered for transport in accordance with the provisions of § 173.441(b) of this subchapter may be transported by vessels provided that they are not removed from the vehicle at any time while on board the vessel. In that case, the entries under the heading "under exclusive use" apply.

[c] The consignment must be handled and stowed such that the total sum of CSIs in any group does not exceed 50, and such that each group is handled and stowed so that the groups are separated from each other by at least 6 m (20 ft).

[d] The consignment must be handled and stowed such that the total sum of CSIs in any group does not exceed 100, and such that each group is handled and stowed so that the groups are separated from each other by at least 6 m (20 ft). The intervening space between groups may be occupied by other cargo.

■ 54. In § 176.708 the section title, paragraphs (a) through (e), and footnote 6 to Table IV are revised to read as follows:

§ 176.708 Segregation distances.

(a) Table IV lists minimum separation distances between radioactive materials and spaces regularly occupied by crew members or passengers, or between radioactive materials and undeveloped photographic film. It expresses the separation distances as a function of the sum of the TIs of all packages in a single consignment, in the case of 0 or 3 feet of intervening cargo of unit density for persons, and 0, 3, or 6 feet of intervening cargo of unit density for undeveloped film. Cargo of unit density is stowed cargo with a density of 1 long ton (2240 lbs.) per 36 cubic feet. Separation distances may be interpolated from the table where appropriate.

(b) Table IV is to be used to determine the separation distance for undeveloped film.

(c) Category YELLOW–II or YELLOW–III packages or overpacks must not be transported in spaces occupied by passengers, except those exclusively reserved for couriers specially authorized to accompany such packages or overpacks.

(d) The separation distances for crew members and passengers may be determined by one of two methods:

(1) By using Table IV to determine the minimum distances between the radioactive material packages and regularly occupied spaces or living quarters; or

(2) For one or more consignments of Class 7 (radioactive) material to be loaded on board a vessel under the exclusive use conditions described in § 176.704(f), by demonstration through direct measurement, made and documented by a suitably qualified person, that for the indicated exposure times the dose rate in regularly occupied spaces or living quarters is less than—

(i) For the crew: 7.0 μSv/h (0.70 mrem/h) up to 700 hours in a year, or

1.8 μSv/h (0.18 mrem/h) up to 2750 hours in a year; and

(ii) For the passengers: 1.8 μSv/h (0.18 mrem/h) up to 550 hours in a year, taking into account any relocation of cargo during the voyage.

(e) Any departure from the segregation provisions should be approved by the competent authority of the flag state of the ship and, when requested, by the competent authority at each port of call.

* * * * *

TABLE IV

*	*	*	*	*

Note:

* * * * *

(6) The figures below the double line of the table shall be used in those cases where the appropriate provisions of this class permit the sum of the transport indices to exceed 200.

* * * * *

PART 177—CARRIAGE BY PUBLIC HIGHWAY

■ 55. The authority citation for part 177 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 56. In § 177.842, paragraphs (f) and (g) are revised to read as follows:

§ 177.842 Class 7 (radioactive) material.

* * * * *

(f) The number of packages of fissile Class 7 (radioactive) material in any non-exclusive use transport vehicle must be limited so that the sum of the criticality safety indices (CSIs) does not exceed 50. In loading and storage areas, fissile material packages must be grouped so that the sum of CSIs in any one group is not greater than 50; there may be more than one group of fissile material packages in a loading or storage area, so long as each group is at least 6 m (20 feet) away from all other such groups. All pertinent requirements of §§ 173.457 and 173.459 apply.

(g) For shipments transported under exclusive use conditions the radiation dose rate may not exceed 0.02 mSv per hour (2 mrem per hour) in any position normally occupied in the motor vehicle. For shipments transported as exclusive use under the provisions of § 173.441(b) of this subchapter for packages with external radiation levels in excess of 2 mSv (200 mrem per hour) at the package surface, the motor vehicle must meet the requirements of a closed transport vehicle (see § 173.403 of this subchapter). The sum of criticality safety indices (CSIs) for packages containing fissile material may not exceed 100 in an exclusive use vehicle.

PART 178—SPECIFICATIONS FOR PACKAGINGS

■ 57. The authority citation for part 178 continues to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

■ 58. In § 178.350, paragraph (b) is revised and a new paragraph (c) is added to read as follows:

§ 178.350 Specification 7A; general packaging, Type A.

* * * * *

(b) Each Specification 7A packaging must be marked on the outside "USA DOT 7A Type A."

(c) Each Specification 7A packaging must comply with the marking requirements of § 178.3.

§§ 178.352 and 178.352–1—178.352–6 [Removed]

■ 59. Sections 178.352 and 178.352–1 through 178.352–6 are removed.

§§ 178.354 and 178.354–1—178.354–5 [Removed]

■ 60. Sections 178.354 and 178.354–1 through 178.354–5 are removed.

§§ 178.362 and 178.362–1—178.362–7 [Removed]

■ 61. Sections 178.362 and 178.362–1 through 178.362–7 are removed.

§§ 178.364 and 178.364–1—178.364–6 [Removed]

■ 62. Sections 178.364 and 178.364–1 through 178.364–6 are removed.

Issued in Washington, DC, on December 9, 2003 under authority delegated in 49 CFR part 1.

Samuel G. Bonasso,

Deputy Administrator.

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Part III

Nuclear Regulatory Commission

10 CFR Part 71

Compatibility With IAEA Transportation Safety Standards (TS–R–1) and Other Transportation Safety Amendments; Final Rule

NUCLEAR REGULATORY COMMISSION

10 CFR Part 71

RIN 3150—AG71

Compatibility With IAEA Transportation Safety Standards (TS–R–1) and Other Transportation Safety Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations on packaging and transporting radioactive material. This rulemaking will make the regulations compatible with the latest version of the International Atomic Energy Agency (IAEA) standards and codify other applicable requirements. This final rule also makes changes in fissile material exemption requirements to address the unintended economic impact of NRC's emergency final rule entitled "Fissile Material Shipments and Exemptions" (February 10, 1997; 62 FR 5907). Lastly, this rule addresses a petition for rulemaking submitted by International Energy Consultants, Inc.

EFFECTIVE DATE: This final rule is effective on October 1, 2004. Portions of §§ 71.19 and 71.20 expire on October 1, 2008.

FOR FURTHER INFORMATION CONTACT: Naiem S. Tanious, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone (301) 415–6103; e-mail *nst@nrc.gov*.

SUPPLEMENTARY INFORMATION:

Contents

I. Background

Before developing and publishing a proposed rule, the NRC began an enhanced public-participation process designed to solicit public input on the part 71 rulemaking. The NRC issued a part 71 issues paper for public comment (65 FR 44360; July 17, 2000). The issues paper presented the NRC's plan to revise part 71 and provided a summary of all changes being considered, both International Atomic Energy Agency (IAEA)—related changes and NRC-initiated changes. The NRC received 48 public comments on the issues paper. The NRC enhanced public participation process included establishing an interactive Web site and holding three facilitated public meetings: a "roundtable" workshop at NRC Headquarters, Rockville, MD, on August 10, 2000, and two "townhall" meetings—one in Atlanta, GA, on September 20, 2000, and a second in Oakland, CA, on September 26, 2000. Oral and written comments, received from the public meetings by mail and through the NRC Web site, in response to the issues paper were considered in drafting the proposed rule.

The NRC published the proposed rule in the **Federal Register** on April 30, 2002 (67 FR 21390), for a 90-day public comment period. In addition to approving the publication of the proposed rule, the Commission also directed the NRC staff to continue the enhanced public participation process. The NRC staff held two public meetings to discuss the proposed rule. The first meeting was held in Chicago, Illinois, on June 4, 2002, and the second was held at the TWFN Auditorium, NRC Headquarters, on June 24, 2002. In addition, the Department of Transportation (DOT) staff participated in these meetings. Transcripts of these meetings were made available for public review on the NRC Web site. The public comment period closed on July 29, 2002. A total of 192 comments were received. Although many comments were received after the closing date, all comments were analyzed and considered in developing this final rule.

Past NRC-IAEA Compatibility Revisions

Recognizing that its international regulations for the safe transportation of radioactive material should be revised from time to time to reflect knowledge gained in scientific and technical advances and accumulated experience, IAEA invited Member States (the U.S. is a Member State) to submit comments and suggest changes to the regulations in 1969. As a result of this initiative, the IAEA issued revised regulations in 1973 (Regulations for the Safe Transport of Radioactive Material, 1973 edition, Safety Series No. 6). The IAEA also decided to periodically review its transportation regulations, at intervals of about 10 years, to ensure that the regulations are kept current. In 1979, a review of IAEA's transportation regulations was initiated that resulted in the publication of revised regulations in 1985 (Regulations for the Safe Transport of Radioactive Material, 1985 edition, Safety Series No. 6).

The NRC also periodically revises its regulations for the safe transportation of radioactive material to make them compatible with those of the IAEA. On August 5, 1983 (48 FR 35600), the NRC published a revision of 10 CFR part 71. That revision, in combination with a parallel revision of the hazardous materials transportation regulations of DOT, brought U.S. domestic transport regulations into general accord with the 1973 edition of IAEA transport regulations. The last revision to part 71 was published on September 28, 1995 (60 FR 50248), to make part 71 compatible with the 1985 IAEA Safety Series No. 6. The DOT published its corresponding revision to title 49 on the same date (60 FR 50291).

The last revision to the IAEA Safety Series 6, Safety Standards Series ST–1, was published in December 1996, and revised with minor editorial changes in June 2000, and redesignated as TS–R–1.

Historically, the NRC has coordinated its part 71 revisions with DOT, because DOT is the U.S. Competent Authority for transportation of hazardous materials. "Radioactive Materials" is a subset of "Hazardous Materials" in 49 CFR under DOT authority. Currently,

DOT and NRC co-regulate transport of nuclear material in the United States. The NRC is continuing with its coordinating effort with the DOT in this rulemaking process. Refer to the DOT's corresponding rule for additional background on the positions presented in this final rule.

Scope of 10 CFR Part 71 Rulemaking

As directed by the Commission, the NRC staff compared TS–R–1 to the previous version of Safety Series No. 6 to identify changes made in TS–R–1, and then identified affected sections of part 71. Based on this comparison, the NRC staff identified 11 areas in part 71 that needed to be addressed in this rulemaking as a result of the changes to the IAEA regulations. The NRC staff grouped the part 71 IAEA compatibility changes into the following issues: (1) Changing part 71 to the International System of Units (SI) only; (2) radionuclide exemption values; (3) revision of A_1 and A_2; (4) uranium hexafluoride (UF_6) package requirements; (5) introduction of the criticality safety index requirements; (6) type C packages and low dispersible material; (7) deep immersion test; (8) grandfathering previously approved packages; (9) changes to various definitions; (10) crush test for fissile material package design; and (11) fissile material package design for transport by aircraft.

Eight additional NRC-initiated issues (numbers 12 through 19) were identified by Commission direction and NRC staff consideration for incorporation in part 71. These NRC-initiated changes are: (12) Special package authorizations; (13) expansion of part 71 Quality Assurance (QA) requirements to Certificate of Compliance (CoC) holders; (14) adoption of the American Society of Mechanical Engineers (ASME) code; (15) change authority for Dual-Purpose Package Certificate holders; (16) fissile material exemptions and general license provisions; (17) decision on petition for rulemaking on PRM–71–12, Double Containment of Plutonium; (18) contamination limits as applied to Spent Fuel and High-Level Waste (HLW) packages; and (19) modifications of event reporting requirements. The first 18 issues were published for public comment in an issues paper in the **Federal Register** on July 17, 2000 (65 FR 44360). Also, the authority citation for part 71 has been corrected to include section 234.

This final rule has been coordinated with DOT to ensure that consistent regulatory standards are maintained between NRC and DOT radioactive material transportation regulations, and to ensure coordinated publication of the final rules by both agencies. The DOT also published its proposed rule regarding adoption of TS–R–1 April 30, 2002 (67 FR 21328).

II. Analysis of Public Comments

As previously stated, the NRC held two facilitated public meetings in 2002 to discuss and hear public comments on the proposed rule. (Three other facilitated public meetings were held in 2000 before drafting the proposed rule.) Each of these meetings was transcribed by a court reporter. The meeting transcripts and condensed summaries of the comments made in the meeting are available to the public on the NRC's interactive rulemaking Web site at *http://ruleforum.llnl.gov.* and the Public Document Room (PDR) located at One White Flint North, 11555 Rockville Pike, Room O–1F23, Rockville, MD. The NRC has made copies of publicly released documents available on the Web site at *http://www.nrc.gov/waste/spent-fuel-transp.html.*

This section provides a summary of the general comments not associated with the 19 issues but rather with general topics related to this rule and the rulemaking process. These are organized under the following subheadings: Compatibility with IAEA and DOT standards, Regulatory Analysis (RA) and Environmental Assessment (EA), State Regulations, Terrorism, Adequacy of NRC Regulations and Rulemaking Process, Proposed Yucca Mountain Facility, and Miscellaneous (including comments to DOT). A summary of public comments associated with a specific issue is included in Section III of this **SUPPLEMENTARY INFORMATION.**

Compatibility With IAEA and DOT Standards

Comment. Several commenters generally supported NRC's efforts to be consistent with IAEA regulations. The particular reasons for this support varied among commenters but included such issues as approving of harmonization and encouraging NRC's coordination with DOT. For example, some commenters stated that harmonization enhances the industry's ability to import shipments and conduct business in compliance with both national and international regulations. One commenter urged the NRC to move swiftly to complete this rulemaking effort and to remain consistent with DOT regulations. One commenter stated that uniform international regulations were in the public's best interest for the safe movement of nuclear materials. Further, this commenter urged the NRC to accelerate the "harmonization" with international regulations to simplify procedures for companies that ship nuclear waste both domestically and internationally.

Response. The NRC acknowledges these comments, and the NRC continues to work to finalize this rule as expeditiously as possible. As with the issuance of the proposed rule, the NRC will continue to coordinate closely with the DOT in this effort to ensure consistency between regulations for the transportation of certain radioactive materials.

Comment. A commenter supported harmonization but said that adoption of new or modified requirements into the domestic regulations for transportation of radioactive materials must be justified in terms of cost and the need for improved safety and performance. The commenter added that some of the changes, including the additional technical complexity of the proposed regulations (*e.g.*, nuclide specific thresholds), are not warranted based on the history of performance in the transportation of radioactive materials.

Another commenter noted several areas of incompatibility between DOT and NRC proposed rules. The commenter also suggested that NRC work with DOT to agree on a consistent approach in organizing the A_1 and A_2 values for international shipments in Table A–1. A third commenter noted that DOT has already issued a proposed rule, HM 232, which focuses on using the registration program to affect the enhancement and security of radioactive materials in transport.

Response. NRC's goal is to harmonize our transportation regulations to be consistent with IAEA and DOT, while ensuring that the requirements adopted will benefit public health, safety, and the environment. The NRC has conducted an evaluation of the radionuclide-specific thresholds (the exemption values), including a regulatory analysis and an environmental assessment, and concluded that adoption of these values is warranted, in spite of the technical complexity. NRC has been working with the DOT. The NRC has completed a regulatory analysis that supports harmonization in terms of cost and regulatory efficiency.

Comment. One commenter stated that NRC should use the latest medical knowledge from independent sources (*i.e.*, not IAEA or International Commission on Radiological Protection (ICRP) data) regarding the medical effects of radiation.

Response. The NRC considers a variety of sources of information

concerning the health effects attributed to exposure to ionizing radiation. Two primary sources of information are the National Research Council/National Academy of Sciences (NAS) and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). Both groups provide an independent and comprehensive evaluation of the health risks associated with radiation exposure. The NRC currently is sponsoring an NAS review of information from molecular, cellular, and animal studies of radiation, other environmental exposures, and epidemiologic studies to evaluate and update previous reviews of the health risks related to exposure to low-level ionizing radiation. These studies focus on the latest published information available.

Comment. Several commenters questioned the credibility of the IAEA and the ICRP because these organizations are not publicly accountable. Three of the commenters further questioned the process of the NRC simply accepting what the IAEA does, noting that agencies in Europe have challenged ICRP assumptions. One of these commenters stated that regulated or potentially regulated bodies should be allowed more involvement in the IAEA decisionmaking process. Furthermore, the suggested lack of public involvement led one commenter to express a general lack of trust for these organizations and question the credibility of their conclusions. This lack of public involvement was at issue with another commenter who added that the proposal would only "make things easier for the transportation and nuclear industries at the expense of public health."

Response. The United States is represented at the IAEA for transportation issues through the DOT acting as Competent Authority (the official U.S. representative organization). The NRC consults with DOT on issues related to nuclear material transport. NRC disagrees with the statement that the NRC simply accepts what the IAEA does. When the NRC (and the DOT) seeks to amend its regulations to harmonize with IAEA's, it does so through a deliberate and open process via rulemaking. The public has been afforded in the past, and will continue to be afforded, the opportunity to comment on DOT's and NRC's proposed rulemakings. This effort can result in NRC regulations not matching the IAEA guidance. Further, the NRC does not "simply accept" the IAEA standards. In many instances, the NRC has chosen to implement regulations that differ from the IAEA's. Issues 7 and 11 of this final rule, discussed elsewhere in this **SUPPLEMENTARY INFORMATION**, are just two examples of where NRC has differed from the IAEA requirements by implementing more stringent requirements.

Information on the IAEA and ICRP can be found at their respective Web sites: *www.iaea.org* and *www.icrp.org*. These Web sites provide background on each organization that should address the concerns about the credibility of each organization.

Comment. One commenter stated that the burden of proof for departing from IAEA standards is shifted by the regulators to the regulated entities. Another commenter suggested that the burden of proof for rejecting the proposed regulatory changes is being shifted to citizens and stakeholders.

Response. Both the NRC and DOT are participating members of the IAEA and have direct input to the development of new transportation standards. Before DOT or NRC proposes U.S. regulations for harmonization with IAEA standards, each agency completes a technical evaluation and makes a determination if each new standard should be adopted by the U.S. The public involvement process for rulemaking solicits stakeholders to suggest changes to proposed rule language or to suggest the rejection of a proposed regulatory change. With sufficient justification, public comments have resulted in modification to regulatory text.

Comment. One commenter asked if either NRC standards or IAEA's could protect the public from "real world" problems. The commenter inquired how NRC accounts for the fact that a cask might burn for longer than existing standards require it to withstand fire. The commenter believed that such rationales were particularly relevant in light of recent incidents, such as the Baltimore Tunnel fire and the Arkansas River bridge accident.

Response. The NRC notes the questions on how realistic the transportation standards established by the NRC and the IAEA are. Both NRC and IAEA standards require that cask designs be able to withstand hypothetical accident conditions. The conditions bound (or are more severe than) those conditions that would be expected in the vast majority of real world accidents and therefore provide protection for the cask designs. Additionally, the NRC has periodically revisited and evaluated the effects of actual accidents to look at the forces and the challenges that would be presented to casks in "real world" transportation accidents. For example, in response to the Baltimore Tunnel fire, the NRC staff has conducted two sets of independent analyses and has determined that the conditions that existed in the fire would not have caused a breech of a current spent fuel transportation cask design had it been located in the tunnel for the duration of the fire.

Comment. One commenter stated that the timeline by which NRC would adopt IAEA requirements should be changed. The commenter also stated that the current 2-year cycle for changes is too frequent.

Response. The timeline for adopting IAEA standards and the cycle for making changes at the IAEA are beyond the scope of this rulemaking.

Comment. One commenter stated that the proposed rule might allow weakening of transportation cask safety testing and increase the risk of the release of radioactive materials during transportation accidents.

Response. This concern is acknowledged, but the NRC does not believe that this rule weakens testing standards.

Comment. One commenter stated that all radioactive shipments should be regulated and labeled so that transportation workers and emergency responders are aware of the risk.

Response. The comments are acknowledged. DOT regulations include requirements for labels, markings, and placarding packages and conveyances of radioactive materials, and training of Hazmat workers. Existing and proposed regulations for the transportation of radioactive materials consider the potential risk to workers and emergency responders of exposure to these materials. The NRC believes the thresholds for regulation of the transportation of radioactive materials protect the health and safety of workers and emergency responders.

Comment. One commenter pointed out that due to the increase in the number of nuclear shipments, the NRC and DOT must strengthen their standards to protect the millions of people, thousands of schools, and hundreds of hospitals residing directly along transportation routes.

Response. The NRC routinely reevaluates the effectiveness of its regulations to ensure that it is meeting its mission to protect the public health and safety. In regulating safe and secure transport of spent nuclear fuel, the NRC has conducted risk studies to consider the fact that a large number of shipments might be made to a future geological repository using current generation cask designs. These studies have confirmed that the current NRC regulations are robust and protective of the public during transportation of

spent fuel. Therefore even with an increase in the number of shipments, these shipments can be made safely in large numbers to a centrally located storage facility.

Comment. On behalf of the nuclear industry, one commenter said that harmonization is logical in terms of cost and safety. Harmonized rules and uniform standards and criteria allow members of the nuclear industry to know how safe a package is, regardless of where it comes from. Because many other nations have already adopted many of these proposed rules, U.S. transporters are already required to meet these standards in many cases. The commenter also voiced support for exempting certain domestic shipments from these international regulations.

Response. Harmonization with TS–R–1 should maintain the safety of shipments of radioactive materials while eliminating the need to satisfy two different regulatory requirements (*i.e.*, domestic versus international shipments). The NRC believes that by clarifying and simplifying shipping requirements, harmonization will help all who are involved in the transport of radioactive material to comply successfully with regulations.

Comment. One commenter stated that there has already been much deliberation over the proposed regulations. He stated that his organization and the industry at large have been looking at these proposed changes for well over 10 years.

Response. The comments are acknowledged.

Comment. One commenter stated that harmonization is a "value neutral process" and isn't necessarily good or bad.

Response. Harmonization can be viewed as a value neutral process, although the NRC believes that harmonizing domestic and international regulations generally improves efficiency and safety in the transport of radioactive material. NRC's proposed changes are based upon the careful evaluation of specific issues and provisions in TS–R–1. At this level, the NRC believes that the negative (*i.e.*, costs) or positive (*i.e.*, benefits) value of a particular change can be assessed effectively. These costs and benefits have been carefully evaluated in our decisionmaking process.

Comment. Four commenters opposed harmonizing rules. One commenter opposed harmonization because it "appears to be occurring to satisfy demands of the nuclear industry and affected governmental bodies" to facilitate commerce, rather than in the interest of public safety. Another commenter noted that the primary objective of these changes should be to protect public health, safety, and the environment. Another commenter argued that harmonization should not be used as a justification for violating a country's sovereignty or a State's right to maintain stringent standards. The commenter said that U.S. rules were already harmonized before these proposed changes and that the authors of international regulations should not dictate U.S. regulations. The fact that other countries have adopted the IAEA regulations is not sufficient justification for the U.S. to adopt these regulations. The commenter agreed that some degree of harmonization makes sense but emphasized that the U.S. needs to maintain control over its own rules.

Response. The IAEA periodically updates international regulations for the safe transport of radioactive material in response to advances in scientific knowledge and technical experience. These changes are implemented with the purpose of improving public safety, as well as facilitating commerce. The U.S. has substantial input into the IAEA development of these periodic revisions through official representation by the DOT. While the NRC aims to harmonize its regulations closely with those issued by the IAEA, NRC independently evaluates proposed changes in the interest of protecting public health, safety, and the environment. This rule reflects this extensive process; NRC routinely suggests adoption or partial adoption of certain provisions and nonadoption of others.

Comment. Two commenters asked if NRC could quantifiably prove that harmonization is necessary. One asked if NRC's failure to comply with the IAEA regulations has disrupted commerce or jeopardized public safety, and whether members of the international community have accused the U.S. of disrupting commerce by not complying with these regulations.

Response. DOT and NRC accomplish harmonization by adopting domestic rules that are compatible with international rules. DOT and NRC rules may differ from those of IAEA where it is necessary to reflect domestic practices. However, these differences are kept to a minimum because regulatory differences can lead to confusion and errors and can result in unsafe conditions or events. U.S. failure to comply with international safety regulations could easily result in disruption of U.S. participation in international radioactive material commerce, with no commensurate justifiable safety benefit, because other IAEA Member States are under no obligation to accept shipments that do not comply with international regulations.

Comment. One commenter wanted to know how the IAEA drafted its regulations and statistics. The commenter questioned who the IAEA is and why NRC should accept its statistics. The commenter also asked how much input the American public has had on these regulations and noted that Congress and the public have previously rejected IAEA regulations.

Response. The comments concerning the IAEA standards development process and U.S. citizen input to that process are both beyond the scope of this rulemaking. However, as noted in the public meetings held to obtain comments on the proposed rule, DOT is mandated by law to help formulate international transportation standards, and to ensure that domestic regulations are consistent with international standards to the degree deemed appropriate. The law permits DOT the flexibility to accept or reject certain of the international standards. The NRC/DOT evaluation of the IAEA standards has resulted in the two parallel sets of final rule changes. Rejection of an IAEA standard could be based on technical criteria as well as on public comment on proposed rules. The IAEA has Member States that develop standards as a collegial body, and the U.S. is one of those Member States.

Comment. Several commenters urged NRC to improve its scientific understanding and basis for the proposed rulemaking. Two commenters suggested that NRC complete the comprehensive assessments of TS–R–1 and future IAEA standards, the Package Performance Study (PPS), and full-scale cask tests before proceeding with this rulemaking. A commenter stressed that ICRP does not represent the full range of scientific opinion on radiation and health and ignores concepts such as the bystander effect and synergism of radiation with other environmental contaminants. This commenter also stated that the exposure models used to justify certain exposure scenarios are inadequate.

Response. The NRC acknowledges these comments and notes that NRC participates or monitors the work of major, national and international, scientific organizations in the fields of health physics and radiation protection. As such, NRC has access to the latest scientific advances. Moreover, the NRC has completed an assessment of TS–R–1 as part of the development of this rule. The PPS is a research project independent of this rulemaking. Also,

see the following comment regarding the ICRP.

Comment. Several commenters stated that the IAEA rulemaking process is not democratic, and their documents are not publicly available and were developed without public knowledge or input. One commenter suggested that the public should have had an opportunity to "comment on or otherwise participate in the earlier formation of the IAEA rules." Another commenter proposed that the NRC act as an intermediary between public opinion and IAEA by improving communications with the public and regulated bodies, providing advanced notice of rulemakings, and receiving comments on proposed rules.

Response. The NRC acknowledges the comments about the IAEA rulemaking process, the ICRP representation of scientific opinion, and the observation on NRC's role as intermediary between the American public and the IAEA, but each of these comments brings up issues that are beyond the scope of the proposed rulemaking. Therefore, no changes were made to this rulemaking. The NRC notes that the IAEA has begun to discuss ways to foster public participation in its standards development process.

Comment. Several commenters stated that IAEA and ICRP regulations should not dictate domestic U.S.-based regulations. Two commenters stated that IAEA does not necessarily consider the risk-informed, performance-based standards that are important to rulemaking in the U.S. The commenters added that the NRC must recognize that while IAEA standards generally have good technical bases, they are consensus standards that do not necessarily consider the risk-informed, performance-based aspects of regulations that we have developed in the U.S.

Response. The NRC acknowledges the comment about IAEA and ICRP regulations dictating U.S. based regulations and notes that this comment is not accurate and is considered to be an opinion. The NRC is a participating member of both the IAEA and the ICRP, and neither body dictates to the NRC what regulations or standards must be adopted. As a participant, the NRC suggests transportation standard changes and as such, the NRC both proposes and comments on the language of new standards. This participation permits the NRC to infuse its ideas on risk-informed regulations, when possible.

Comment. The effort to harmonize regulations was supported by several commenters. One commenter spoke for Agreement States and expressed support for harmonizing regulations. Two others explained that the benefit of harmonization would be consistent national and international regulations and improved safety, yet U.S. regulators (and regulations) would retain the legal authority to act when and as necessary. Another commenter emphasized that given how new information is found all the time and the IAEA is on a 2-year standards revision schedule, it does not make sense to hold back harmonizing U.S. standards with international standards pending the outcome of any studies.

Response. The NRC believes that its effort to promote regulatory harmonization will maintain and/or improve safety, increase regulatory efficiency and effectiveness, as well as reduce unnecessary regulatory burden. The NRC's aim is to harmonize its regulations with IAEA regulations by adopting many of the provisions in TS–R–1. However, the NRC does not propose wholesale adoption of TS–R–1, but only when adoption provides the best opportunity to maintain and/or improve public safety, health, and the environment.

Regulatory Analysis (RA) and Environmental Assessment (EA)

Comment. Several commenters found the RA to be deficient in various aspects. One commenter asserted that updated quantitative data should be included in the RA that would include the following information: the number of exempt and nonexempt packages; the number of exempt and nonexempt shipments; the average number of packages per shipment; and the detailed information on curie counts by shipment categories. The commenter noted that all stakeholders are affected by these deficiencies, notably public information groups and Western States.

Two commenters focused on the RA's cost analysis with one stating that no changes should be made without a cost analysis and the other stating that the RA had not adequately considered the cost of the proposed rule. The second of these commenters stated that specific dose information, calculations, and information regarding the impact of the new regulations should have been included in the draft RA and EA. They found the RA to be deficient because of its failure to recognize likely impacts of the changes to the double containment of plutonium regulations, particularly regarding the agreement between the Western Governors' Association, the individual Western States, and the Department of Energy (DOE) for a system of additional transportation safeguards.

Response. Quantitative data was requested throughout the rulemaking process. These requests were made during the development of the proposed rule, and a request was again made in the proposed rule. Where this information was available, it was used in the development of NRC's proposed positions. To the extent that information was provided, it has been considered in the development of NRC's final position.

Comment. One commenter asserted that the proposed rule is a major Federal action, thus deserving of a full Environmental Impact Statement (EIS). The commenter also stated that an EIS dating from 1977 and a study dating from 1985 do not suffice as adequate analysis of the proposed rule's impact, due to changes "in population, in land use, in the transportation system, in laws, in issues of national security."

Response. NRC acknowledges this comment and notes that it has prepared an EA. Based on the results of the EA, the NRC staff has concluded that this rule is not a major Federal action requiring an EIS. As noted in the proposed rule, NRC is interested in receiving additional data, and to the extent that the data was received, it was included in the analyses leading up to the final rule.

Comment. One commenter said that the EA and the rulemaking are too carefully tied together. The commenter said that this fact precludes NRC from actually finding an environmental impact from the rule.

Response. The draft EA is a study that is required as part of a rulemaking to ensure that the potential impacts to public health and safety and the environment are adequately evaluated as part of the decisionmaking process. As such, the rule and the EA are necessarily "tied together."

Comment. Two commenters found the EA to be deficient in various aspects. One commenter stated that specific dose information, calculations, and information regarding the impact of the new regulations should have been included in the draft EA and RA.

A commenter believes that the EA and RA lack the following pieces of information: the number of exempt and nonexempt packages; the number of exempt and nonexempt shipments; the average number of packages per shipment; and the detailed information on curie counts by shipment categories. One commenter believes that the EA should include transportation scenarios, updated data rather than 1982 data, and a quantitative analysis along with a qualitative analysis.

The NRC was criticized for a portion of the EA (page 43), which first identifies information necessary to make a risk-informed decision on the proposed regulation and then discusses the lack of information in the EA. The commenters noted a discrepancy in NRC's efforts, particularly the number of NRC staff and resources devoted to this rulemaking for the past 2 years versus the lack of resources devoted to updating the 1982 data. They stated that the costs associated with the Type C package changes were not included in the EA and that process irradiators are shipping sources equaling about 50 million curies, much greater than the curie count listed in the proposed rulemaking.

Response. The NRC acknowledge the comments regarding the lack of information in some portions of the draft RA and EA. The draft EA and RA were developed based on the best information available to the NRC at the time. Moreover, NRC solicited in the proposed rule FRN, additional information on the costs and benefits of the proposed requirements, including the Type C package changes. All the information received has been considered in NRC's final decision. The NRC staff notes that the majority of the proposed changes are such that the specific dose information and calculations are not required to determine the appropriateness of adopting or not adopting the change being considered.

Comment. One commenter expressed concerns about NRC's findings of "no significant impact" on radionuclide-specific activity values for a number of issues. The commenter requested that more detailed information be provided "on how many and which radionuclide levels will rise or fall" as a result of proposed changes. The commenter also asked the NRC to define its use of "significantly" and to explain how it determined the level of "risk."

Response. Detailed information on the identity of radionuclides whose specific activity values rise or fall relative to the previous definition of 70 Bq/g (0.002 μCi/g) may be determined by inspection of Table A–2. The context for "significantly" is provided in the background section. NRC has used estimated dose to the public, as determined through the use of radionuclide transport scenarios, as an indicator of risk.

State Regulations

Comment. One commenter asked if these new regulations would threaten a State's right to regulate radioactive materials that NRC has deregulated. Two commenters stated opposition to the proposed rule due to their belief that it would lower standards. The first commenter stated that the proposed rule would override State and local laws that are stricter than Federal regulations while the second commenter stated that the proposed rule would reduce environmental protection. Four commenters added that "harmonization" with international law was a poor and ultimately insufficient justification to weaken U.S. regulations.

Response. State and local governments do not have authority to set regulations for the transportation of radioactive materials that are stricter or more stringent than those of the Federal government. In accordance with section 274b of the Atomic Energy Act, as amended, Agreement States programs must be compatible with those of the NRC for the regulation of certain radioactive materials to assume authority for the regulations of these materials from the NRC. Because of this, the Commission developed the "Policy Statement on Adequacy and Compatibility of Agreement State Programs" which became effective on September 3, 1997 (62 FR 46517). One of the provisions of this Policy Statement is that an Agreement State should adopt program elements that apply to activities that have direct and significant effects in multiple jurisdictions' elements in an essentially identical manner as those of the NRC (*see* definition of Compatibility Category B in section VI of this notice). This is needed to eliminate any conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of radioactive materials on a nationwide basis. Those part 71 requirements applicable to materials regulated by Agreement States are designated as Category B and must be adopted in an essentially identical manner as those of the NRC because they apply to activities that have direct and significant effects in multiple jurisdictions.

Terrorism Concerns

Comment. Six commenters expressed concern with the increased threat of terrorism and its impact on radioactive material transport. One commenter suggested that shipping standards be strengthened due to both an increased threat of terrorist attacks and the decline in rail, highway, air, and waterway infrastructure. Two commenters stated that they were concerned that many of the new regulations would make transported radioactive material more vulnerable to terrorist attacks and wanted to know how NRC anticipated responding to the threat of these attacks. Three commenters mentioned that the threat of terrorism should be taken into account when changing container regulations, with one commenter highlighting double versus single containment of plutonium. The final commenter stated that the NRC should reconsider the scope of the proposed rule due to the "altered circumstances of our nation's vulnerability to terrorist attack." The commenter also suggested that the proposed rule be withdrawn and that the NRC "recalculate the full adverse consequences and the full long-term financial, health, and environmental costs to the public, the nation, and the economy of worst case terrorist actions." The commenter also stated that in a time of increased national security threats, the safety of containerization must be maximized.

Response. As discussed on the NRC's Web site (*see www.nrc.gov/what-we-do/safeguards/911/faq.html*), most shipments of radioactive materials involve materials such as pharmaceuticals, ores, low-level radioactive waste, and consumer products containing radionuclides (*e.g.*, watches, smoke detectors). A variety of Federal and State government agencies regulate the shipment of radioactive materials.

High-level nuclear waste materials, such as spent nuclear fuel, are transported in very heavy, robust containers called "casks." Over the past 30 years, approximately 1300 shipments of commercially generated spent fuel have been made throughout the U.S. without any radiological releases to the environment or harm to the public. Federal regulations provide for rigorous standards for design and construction of shipment casks to ensure safe and secure transport of their hazardous contents. Casks must meet extremely demanding standards to ensure their integrity in severe accident environments. Therefore, the design of casks would make any radioactive release extremely unlikely. After September 11, 2001, the NRC issued advisories to licensees to increase security measures to further protect the transportation of specific types of radioactive materials, including spent fuel shipments. Additional measures have been imposed on licensees shipping specific quantities of radioactive material.

Comment. Another commenter, who lives near a route proposed for shipping nuclear waste across the country, recommended that NRC strengthen radioactive transport regulations. One commenter opposed the adoption of new transport regulations that reduce

the protection to the public from transporting nuclear wastes.

Response. The NRC believes that the regulations contained in part 71 adequately protect public health and safety. The changes being adopted will not result in any undue increase in risk to public health, safety, or the environment.

Comment. Several commenters were concerned that the proposed regulations may increase vulnerability to terrorist threats using radioactive materials. A commenter believes that labeling radioactive materials could aid terrorists by identifying the packages as radioactive, while another commenter stated that shipments with or without labels provided potential terrorists with the materials for a dirty bomb. Another commenter requested that NRC put protective measures into place at ports and to guard all nuclear shipments with U.S. military forces. One commenter stated that nuclear shipments should be transported at off-peak hours while all side roads, tunnels, bridges, overpasses, railroad crossings, access to exit ramps, etc., should be secured before the transport vehicle arrives, and that NRC should create a "vehicle-free" buffer zone ahead and behind the shipment. This same commenter advocated FBI background checks on all transporters, drivers, and crew workers involved with nuclear transport. Two commenters asserted that all new rules should be mindful to the threat of terrorism, which would be superior to considering terrorism in separate rules.

Response. The NRC acknowledges these comments and notes that NRC has taken immediate regulatory actions to address the potential for terrorist activities; these include issuing orders and advisories to its spent fuel licensees prior to initiating rulemaking which takes a longer time, and initiating shipment vulnerability studies. Also, the NRC will make the necessary rule changes, based on these studies, as appropriate. Moreover, the NRC staff notes that several of the comments above were addressed in recent regulations (March and May, 2003), which were published jointly by the Department of Homeland Security and the DOT requiring shippers and carriers to submit security plans and requiring background checks on drivers.

Adequacy of NRC Regulations and Rulemaking Process

Comment. Three commenters believe that the NRC should better account for low-level radiation. One commenter stated that NRC should use the latest medical knowledge from independent sources (*i.e.*, not IAEA or ICRP data) regarding the medical effects of radiation. Another commenter stated that low-level radiation could cause cell death, cancer, genetic mutations, leukemia, birth defects, and reproductive, immune, and endocrine system disorders. This commenter added that long-term exposure to low levels of ionizing radiation could be more dangerous than short-term exposure to high levels. Another commenter, who was similarly concerned with low dose and low dose-rate radiation, stated that "arguments of nuclear industry proponents that new information need not be considered is invalid and since the NRC's legal mandate is to protect the public's health and safety" the NRC needs to consider "cautionary information that is now available in the peer reviewed literature." The commenter suggested that NRC not focus on the "standard man" but instead focus on the "most susceptible portions of the population—ova, embryo, fetus, rapidly growing young child, elderly, and those with impaired health" when drafting regulations. Lastly, the commenter implied that NRC should attempt to "assess and incorporate impacts of additive exposures to other forms of life and to ecosystems" as well as the impacts associated with "an individual recipient of the combinations of and synergies among radiation and other contaminants to which people are exposed."

Response. As discussed on the NRC's Web site (*see http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.html*, radiation may kill cells, induce genetic effects, and induce cancer at high doses and high dose rates. However, for low levels of radiation exposure at low dose exposure rates, health effects are so small they may not be detected. No birth defects or genetic disorders among the children born to atomic bomb survivors from Hiroshima and Nagasaki have been observed at low doses of radiation, *i.e.*, < 25 rad (Chapter 6, "Other Somatic and Fetal Effects," of Beir V, *Health Effects of Exposure to Low Levels of Ionizing Radiation*; National Research Council, 1990). Consequently, few if any similar effects are expected from exposure to low doses of ionizing radiation. Moreover, there is no epidemiology data, published in peer reviewed journals, to support the concern expressed by the commenter that long-term exposure to low levels of radiation may be more dangerous than short-term exposures to high levels. Humans have evolved in a world constantly exposed to low levels of ionizing radiation. The average radiation exposure in the U.S. from natural sources is 3.0 mSv (300 mrem) per year. Although radiation can have health effects at high doses and dose rates, for low levels of radiation exposure at low dose exposure rates, the incidence of biological effects is so small that it may not be detected. For example, information developed by the Health Physics Society suggests that the incidence of health effects, if they exist below 10,000 mrem (100 mSv), is too small to be observed. People living in areas having high levels of background radiation—above 10 mSv (1,000 mrem) per year, such as Denver, Colorado, have shown no adverse health effects.

The NRC actively and continually monitors research programs and reports concerning the health effects of ionizing radiation exposure. NRC staff monitors the Low Dose and Low Dose Rate Research Program sponsored by the Department of Energy (DOE). The research project is designed to better understand the biological responses of molecules, cells, tissues, organs, and organisms to low doses of radiation. NRC also is co-funding a review of the Biological Effects of Ionizing Radiation (BEIR) by the National Research Council. The BEIR committee will also review and evaluate molecular, cellular, and animal exposure data and human epidemiologic studies to evaluate the health risks related to exposure to low-level ionizing radiation. Both groups provide a comprehensive evaluation of the health risks associated with radiation exposure.

Finally, existing regulatory guidance suggests that protection of individuals (humans) is also protective of the environment. IAEA Technical Report Series No. 332 (Effects of Ionizing Radiation on Plants and Animals at Levels Implied by Current Radiation Protection Standards) suggests that, in most cases, the environment is being protected by protecting humans.

Individuals in occupational or public areas may be exposed to radiation and chemical exposure which result from materials present in these areas. The NRC, however, has no regulatory authority over any of the materials present other than source, byproduct, or special nuclear material. In many situations, exposures to chemicals and non-NRC regulated materials are under the purview of the U.S. Environmental Protection Agency (EPA).

Comment. Seven commenters opposed the proposed rule because of increased exposure, danger to public health, and increased public health risk.

Response. The NRC disagrees that the proposed rulemaking will result in any significant increase in exposure,

endangerment to public health, or increase in health risk. *See* earlier comment responses for further details.

Comment. One commenter stated that U.S. agencies have not adequately represented public opinion regarding transportation safety. The commenter was concerned that the number of irradiated fuel and plutonium shipments in the nation will increase as the proposed regulations weaken container safety standards.

Response. The DOT and NRC represent the United States before the IAEA, DOT as the U.S. Competent Authority supported by the NRC. Both agencies are aware of public opinion regarding transportation safety in the United States. The NRC disagrees with the comment that U.S. agencies have not adequately represented public opinion. Additionally, NRC and DOT prepare their rules in compliance with Administrative Procedure Act (APA) requirements. The APA requires that public comments be requested, considered, and addressed before a final rule is adopted unless there are exigent reasons to bypass the public comment process.

Although the number of irradiated fuel and plutonium shipments in the future may increase, the number of shipments to be made is independent of this final rule. Lastly, the comment that the regulation weakens transportation container safety standards is a statement of opinion without supporting data or information.

Comment. One commenter suggested that NRC staff needs to address fully any comments submitted by the public, even when the NRC might consider these comments beyond the scope of the proposed rule.

Response. Although NRC is careful to address all comments with the scope of the rulemaking, there are instances when a comment is sufficiently outside the scope of a proposed action that it need not be addressed. NRC resources need to be used to address issues related to the rulemaking for efficiency and effectiveness.

Comment. One commenter stated that the proposed rule did not specifically incorporate "issues to improve the protective adequacy of the regulations" that were raised by the public during meetings held in 2000. The commenter stated that "changes that were adopted in response to public comments in 2000 must be specified in a revised Proposed Rule." The commenter also asked that further public meetings be held before DOT and NRC proceed with further revisions of the transportation regulations.

Response. The current rule stems from NRC's scoping efforts in 2000, and no rule changes were adopted by the Commission at that time. For this proposed rulemaking, public meetings were held in Chicago, IL, as well as in Rockville, MD (as previously noted). NRC accepted and included all comments received, even those received after the July 29, 2002, deadline. For these reasons, the NRC believes its proposed rulemaking meets the intent of conducting an "enhanced public participation process."

Comment. Eleven commenters requested an extension to the comment period. One commenter said that the proposed rule is written in a manner difficult for the public and even watchdog groups to understand. Because the proposal would affect large portions of the general public by dramatically changing the standards of radioactive transport, the commenter urged the NRC to extend the comment period. Two commenters suggested that the NRC extend the comment period 180 additional days beyond the July 29, 2002, deadline to allow both the public and the NRC more time for further consideration. Commenters added that the proposed rule was not urgent and required further analysis and research. Finally, one commenter stated that the proposed rule's July 29, 2002, deadline for receipt of public comments would prevent it from accounting for the impact of Yucca Mountain. The commenter suggested that a 1- or 2-month rulemaking extension would be beneficial.

Response. The NRC believes the 90-day public comment period was of sufficient length, especially in view of the availability of the proposed rule on the Secretary of the Commission's Web site for over a year (*i.e.*, the Commission decided to make the proposed rule available to the public in March 2001, while it was under consideration). Therefore, the public had the opportunity to comment prior to the official comment period. Moreover, while not required to do so, the NRC chose to accept and consider comments received after the July 29, 2002, deadline. Further, as part of the NRC public participation process, NRC held two open meetings accessible to the public at which the NRC answered questions on the proposed rule and accepted comments. As part of the proposed rule, the NRC solicited additional information from the public which was considered in the development of the final rule.

Comment. One commenter suggested that the NRC separate the comment period for the EA and RA from the comment period for the proposed rule.

Response. The commenter's suggestion is noted but is not feasible to implement because the proposed rule and its supporting RA and EA must be considered concurrently within the rulemaking proceeding.

Comment. One commenter asked if there is any systematic process by which the NRC has performed or will perform a cost-benefit analysis of these proposed regulations.

Response. Whenever the NRC pursues a cost-benefit analysis (otherwise known as a regulatory analysis), the NRC works diligently to ensure that monetized, quantitative, and qualitative data are included. These data are studied to avoid including faulty and/or misleading data. The draft regulatory analysis in NUREG/CR–6713 has been revised to take into account the quantitative and qualitative data contained in the public comments on the proposed rule.

Comment. Two commenters asked for clarification of the proposed rulemaking's scope in light of the May 10, 2002, letter from Commission Chairman Richard A. Meserve.

Response. Former Chairman Meserve's May 10, 2002, letter to Senator Richard Durban provides information on questions posed by the Senator on transportation of spent fuel and nuclear waste to the proposed repository at Yucca Mountain, Nevada. The letter provides information on the NRC's certification process of cask designs, the safety record of spent fuel casks, and the NRC's authority with respect to transportation of radioactive materials and its relationship with DOT and DOE. The issues raised by this letter do not affect the amendments to part 71.

Comment. One commenter asked if the NRC was aware that, on February 23, 2002, Chicago Mayor Richard M. Daley and 17 other mayors signed a letter to President Bush that expressed concerns about nuclear waste transportation. The commenter also made reference to the fire in the Baltimore tunnel and wondered about safety if the fire had involved radioactive materials.

Response. The NRC searched its Agency Wide Document Access and Management System (ADAMS), and no record was found for this letter; however, the NRC is aware of concerns about spent nuclear fuel transportation issues that have been voiced by public officials. There has been significant interest in the Baltimore tunnel fire that occurred on July 18, 2001, by State and local officials, and the impact that such a fire might have had on a shipment of

spent nuclear fuel, had such a shipment been in the tunnel during the time of the fire. In response to the Baltimore Tunnel fire, the staff has conducted two sets of independent analyses and has determined that the conditions that existed in the fire would not have caused a breech of a spent fuel transportation cask of recent design vintage had it been located in the tunnel for the duration of the fire.

Comment. One commenter stated that changes in the scientific community's understanding of radiation injury would affect the risk assessments and other aspects of the proposed rule. The commenter said that both the DOE Biological Effects Division's and NASA's study of the impacts of low dose radiation impacts may require that NRC reconsider its current standards.

Response. The DOE is funding a 10-year Low Dose Radiation Research Program to understand the biological responses of molecules, cells, tissues, organs, and organisms to low doses of radiation. Using traditional toxicological and epidemiological approaches, scientists have not been able to demonstrate an increase in disease incidence at levels of exposure close to background. Using new techniques and instrumentation to measure biological and genetic changes following low doses of radiation, it is believed that a better understanding will be developed concerning how radiation affects cells and molecules and provide a more complete scientific input for decisions about the adequacy of current radiation standards. These data are reviewed by other groups like NAS and UNSCEAR to provide an independent review of this health effects information. NRC reviews the programs and data being generated by the DOE and NASA-sponsored research as well as the reports published by the NAS and UNSCEAR. All of these data sources are used by the NRC for estimating radiological risk, establishing protection and safety standards, and regulating radioactive materials.

Comment. Several commenters expressed concern and doubts about the data used to develop the proposed rule and the information the NRC provided to support its proposal. One commenter urged NRC to ensure that the adopted rule represents a risk-informed, performance-based approach. Two commenters criticized the proposed rule for not accounting for an expected increase in radioactive shipments. Given such an increase, one commenter criticized the NRC for using 20-year old data to justify rule changes that will reduce public safety. This commenter claimed that the data was out-of-date, inaccurate, not independently verified, and did not consider the concepts of radiation's synergistic effects when combined with other toxins. Another commenter argued that DOT and NRC should use more current data and future projections including the expected increases in actual nuclear shipments to estimate the impacts of the rule change. Realistic scenarios and updated data must be used to project doses and thus estimate the impacts of the proposed rule's changes, rather than relying on old data, ICRP, and reliance on computer model scenarios (or simply stating the lack of data). In addition, DOT and NRC should include the expected increases in actual nuclear shipments. Another commenter expressed doubt that the proposed rule's technical benefits are legitimate and stated that these benefits are not supported in the draft EA. One commenter stated that the NRC should wait to adopt any new regulations until there is more information available about the costs and benefits of such regulations.

Response. The IAEA developed its latest standards through a cooperative process where experts from member nations proposed and supported changes to the previous version of the safety standards. The NRC has provided detail on the justification for the proposed changes in the statements of consideration for this rulemaking. The commenter did not provide sufficient detail on which data were of concern for NRC to further address.

The comment that the NRC is relying on 20-year old data for justification of its regulations is unfounded. The NRC has completed risk studies related to the safety of transportation as recently as 2001 and is currently engaged in a research program that will include the full scale testing of casks, to demonstrate the robust nature of certified cask designs.

The comments about the quality of data and benefits are considered to be the opinion of the commenter and were not substantiated. Lastly, the NRC notes that a cost-benefit analysis has already been conducted and is reflected in the NRC's RA.

Comment. Four commenters expressed concern that there is inadequate quantitative data to support the risk-based approach of the proposed rule and that some of the provisions are based on incorrect or outdated information. Two commenters were specifically concerned that DOE and some commercial nuclear facilities are negligent in keeping radiation exposure and release records. These commenters questioned how NRC data was gathered and noted that a failure to keep accurate records constrains NRC's ability to determine whether the proposed harmonization is economically justifiable. Furthermore, these commenters added that lack of records undermines the NRC claim that hundreds of thousands of radioactive material shipments are conducted safely every year.

Response. See response to the previous comment. Also, the NRC notes that the commenter's statements regarding DOE and commercial facilities' negligence is an opinion and was not supported by factual evidence.

Comment. Three commenters stated that pertinent documents and data were not readily available or were too difficult to access for the general public. One commenter requested improved public access to "sources of codes and IAEA documents that were cited by reference in the draft" rule.

Response. The NRC staff worked diligently to ensure that rulemaking documents, including all supporting documents, were available either electronically, over the internet, or in hard-copy upon the public's request in a timely fashion. This includes facilitating public access to the internet site of the publisher of IAEA documents in the U.S.

Comment. Four commenters stated that the NRC should finish the PPS and consider its results before finalizing the proposed rulemaking as well as the rules governing irradiated fuel containers. Another commenter requested that the PPS be completed and thoroughly analyzed before this rulemaking is carried out because the current design requirements for irradiated fuel containers are inadequate and should be improved.

Response. The NRC believes that shipments of spent fuel in the U.S. are safe using the current regulations and programs. This belief is based on the NRC's confidence in the shipping containers that it certifies, ongoing research in transportation safety, and compliance with safety regulations and the conditions of certificates that have resulted in an outstanding transport safety record. Thus, an established system of regulatory controls protects every U.S. shipment of spent fuel from commercial reactors. The NRC sponsored PPS is part of an ongoing confirmatory research program to reassess risks as shipment technologies change and analytical capabilities improve.

Comment. Three commenters urged the NRC to require more stringent testing of transport packages in real-world (not computer-modeled) testing.

Response. NRC regulations permit certifications through testing, analyses, comparison to similar approved designs, or combinations of these methods. A full scale testing is not necessary for the NRC to achieve confidence that a design satisfies the regulatory tests, as long as the analyses are based on sound and proven analytic techniques.

Comment. One commenter suggested that the NRC ensure that the economic value of these regulations is not skewed. That is, the commenter does not want the needs of one particular industry to shape the regulations, when the regulations could have a greater impact on a different industry.

Response. The overall value or impact of the proposed changes results from the interaction of several influencing factors. It is the net effect of the influencing factors that governs whether an overall value or impact would result for several different attributes (*i.e.*, different industries or the public). Similarly, a single regulatory option could affect licensee costs in multiple ways. A value-impact analysis, such as was undertaken as part of this rulemaking effort, quantifies these net effects and calculates the overall values and impacts of each regulatory option. A decision on which regulatory option is recommended takes into account the overall values and impacts of the rulemaking.

Comment. One commenter stressed that when the NRC has decision makers review public comments, the NRC staff should look at primary documents instead of summary documents. The commenter cited NUREG/CR–6711 as an example where the regulator runs the risk of having decision makers read summaries of public comments without understanding the underlying context and content.

Response. In our decisionmaking process, the NRC did not rely on a summary document to support the development of the proposed rule. NRC used primary documents to fully understand the underlying context and content of the technical information. The summary documents the commenter refers to were developed to provide the public with a comprehensive, yet condensed, version of the underlying information. Further, these underlying documents were also made available to the public on the NRC Web site during the rulemaking process.

Comment. One commenter asked which countries have already adopted the proposed guidelines.

Response. The IAEA has conducted a survey that provides the status (as of July 1, 2003) of each Member State's plans for implementing TS–R–1. Based on that survey, many States have already implemented the new requirements of TS–R–1 (*e.g.*, European Commission, Germany, and Australia). Other States have indicated that they are actively implementing these requirements and intend to finalize implementation by the end of 2003. No State indicated that it would not adopt these standards. This survey is available at *http://www-rasanet.iaea.org/downloads/radiation-safety/MSResponsesJuly1 2003.pdf*

Comment. One commenter requested clarification on NRC assumptions for future radioactive materials transportation. Specifically, the commenter wanted to know whether NRC is assuming the amounts will increase or remain consistent with past levels.

Response. The NRC's draft RA and EA relied on existing information to determine the future impacts of the proposed changes. NRC solicited information on the costs and benefits for each of the proposed changes as part of the proposed rule. The NRC considered available information on future radioactive material shipments in its decisionmaking process. Information that was received as part of the public comment process was considered in developing NRC's final position. The NRC staff conducted some sensitivity studies, see for example Comparison of A_1 and A_2 new and old values in the EA, Table A–1, Appendix A.

Comment. Three commenters opposed weakening regulations that would reduce the public safety and health through new definitions or accepted concentration values. One commenter worried that the proposed rule would weaken regulatory control, allowing increased quantities of radioactive materials and wastes "into the lives of individual citizens without their knowledge or approval," thus violating "the most fundamental premises of radiation protection."

Response. The NRC acknowledges the concerns but believes that the rule continues to protect the public's health and safety in a risk-informed manner.

Comment. One commenter particularly opposed NRC and DOE studies, including the EIS to review alternative policies for disposal and recycling of radioactive metals. The commenter requested that the NRC maintain stringent controls on all materials being recycled, disposed, or otherwise reused. Two commenters expressed opposition to the proposed rule due to a belief that the proposed rule would deregulate radioactive wastes and materials and allow the deliberate dispersal of radioactive materials into raw materials and products that are used by the public and are available on the market.

Response. The NRC acknowledges the commenters' references to DOE and NRC studies related to the disposal and recycling of radioactive metals. This rule is not related to the referenced studies.

Comment. One commenter expressed concern that NRC's proposed regulations could increase the variety of materials that are regulated as "radioactive" for transportation purposes.

Response. The rule does not expand the scope of regulated radioactive material.

Comment. One commenter expressed concern that the proposed rule enables commercial and military nuclear industries to "revive and expand, thereby generating ever more wastes to be stored, transported and ultimately * * * sequestered from the biosystem."

Response. The comment is beyond the scope of this rulemaking.

Proposed Yucca Mountain Facility

Comment. One commenter expressed opposition to sending shipments of nuclear materials to the proposed Yucca Mountain facility.

Response. Potential shipments to the proposed geologic repository at Yucca Mountain are beyond the scope of this rulemaking.

Comment. Two commenters raised issues related to the possible approval of the Yucca Mountain site. One commenter expressed concern about the safety of dry casks. The commenter asked if the NRC was aware of the accident at the Point Beach Nuclear Plant in Wisconsin on May 28, 1996, and how similar the dry casks that will ship radionuclides to Yucca Mountain will be to the casks used at Point Beach. The commenter noted that once one buries a dry cask, one cannot change it; therefore, the U.S. will have to be sure that it uses safe casks. The second commenter urged the NRC to consider the transportation issues associated with the possible approval of the Yucca Mountain site as the NRC makes rules pertaining to the packaging and transportation of radioactive materials.

Response. The Nuclear Waste Policy Act (NWPA) requires DOE to use casks certified by NRC for transport to Yucca Mountain, if licensed. Transport casks are generally not the same as storage or disposal casks. Issues regarding the licensing of the Yucca Mountain site and the safety of spent fuel storage or disposal casks are beyond the scope of the proposed rulemaking. The NRC believes compliance with the

regulations in part 71 provides for safe transport package designs.

Comment. Three commenters expressed belief that increases in future shipments have not been adequately considered in the rulemaking. The first commenter stated that these regulations could have important implications for the shipment of high-level radioactive waste. The commenter asked if NRC had considered the financial impact of the opening of the Yucca Mountain facility before proposing the regulations.

Response. This comment is primarily focused on future shipments to Yucca Mountain. The Commission has not received any application relative to the Yucca Mountain site, and a final decision has not been made on opening the site itself. Any conclusion made now by the NRC on future shipments would be purely speculative. Moreover, the commenter did not specify which aspect of the proposed rule would have a significant bearing on the Yucca Mountain facility.

The NRC did not identify where major impacts would result, none were identified that would impact spent fuel shipments. Furthermore, the existing regulations pertaining to spent fuel have been in effect for a significant time and have resulted in more than 1300 spent fuel shipments being conducted without any negative impacts to public health and safety.

Comment. Two commenters asked how NRC factored the possible approval of the Yucca Mountain repository into our rulemaking. One commenter urged NRC to seriously consider the likely increase of radioactive material transportation in Illinois, Michigan, and Wisconsin that will occur if the Yucca Mountain repository is approved. The commenter also provided data from DOE's Yucca Mountain EIS on projected transportation volume through Illinois.

Response. The comments are acknowledged. However, they are beyond the scope of this rulemaking. As part of the rulemaking process, NRC solicited information on the costs and benefits, as well as other pertinent data, on the proposed changes. NRC appreciates the commenter's submission of data related to projected transportation volumes of high-level waste. The NRC believes compliance with the regulations in part 71 provides for safe transport package designs.

Miscellaneous (including comments to DOT)

Comment. One commenter opposed any use of radioactive materials entirely.

Response. This comment is beyond the scope of the rulemaking. This rule deals solely with regulations that govern the transportation of certain types of radioactive materials and does not address issues related to the use of radioactive materials in commerce.

Comment. One commenter included a comment letter that was previously submitted in September 2000, discussing all of the issues in this rulemaking. The letter was resubmitted because the commenter believes that the NRC did not respond to the comments previously and might have lost the original comment letter. The commenter also included several diagrams and an article entitled "New Developments in Accident Resistant Shipping Containers for Radioactive Materials" by J. A. Sisler. This article discusses the safety tests required for shipping containers.

Response. The current proposal stems from NRC's scoping meetings held in August and September 2000, to solicit public comments on the part 71 Issues Paper. NRC accepted all verbal and written comments received at the meetings or later in a letter form and considered these comments in developing the proposed rule.

Comment. One commenter stated that the public's opinion is that nuclear power and weapons should remain sequestered from the environment and the public for as long as they remain hazardous.

Response. The comment is beyond the scope of the rulemaking. This rule deals solely with regulations that govern the transportation of certain types of radioactive materials and does not address the use of nuclear power or weapons.

Comment. One commenter expressed a general distrust of business and urged NRC to consider recent cases of dishonesty in business when formulating regulations.

Response. The comment is beyond the scope of this rulemaking.

Comment. One commenter expressed concern that inaccurate reporting, inspection failures, and faulty equipment all occur in the nuclear transport industry and may contribute to mishaps in transit.

Response. The NRC is aware of the potential for accidents in transporting nuclear material and has considered the accident history of nuclear transportation in estimating the risks of shipping. The NRC believes that this rule provides adequate protection of the public and workers in normal transport conditions and in accident conditions.

Comment. One commenter recommended that all radioactive shipments be tracked, labeled, and publicly reported, including shipments being made in secret without the consent of the American public.

Response. The NRC acknowledges the commenter's suggestion about tracking, labeling, and reporting shipments. Current regulations include requirements for labels and markings for packages that contain radioactive materials. There are notification requirements for NRC licensees applicable to shipments of spent nuclear fuel. Current NRC/DOT requirements for tracking and labeling radioactive shipments provide adequate protection of public health and safety.

Comment. Several commenters were concerned about the public reporting requirements pertaining to the shipping of radioactive materials. Two commenters believe that NRC should publicly report all radioactive shipments.

Response. The NRC has regulations in 10 CFR part 73 (Physical Protection of Plants and Materials) that deal with the reporting of shipments of spent fuel nuclear fuel. This rule deals only with part 71; therefore, these comments are beyond the scope of this rulemaking.

Comment. Several commenters expressed concern with the tracking and labeling aspects of the proposed rule. Two commenters urged the NRC to track, label, and publicly report all radioactive shipments. One commenter believes that the words "radioactive materials" should not be removed from shipping placards because personnel and volunteers understand the plain English warning better than technical language. This commenter also suggested that the warnings be written in several languages. In addition, one commenter stated that the standard symbol, the black and yellow "windmill" for radiation, should adorn all containers.

Response. Tracking and labeling shipments are part of the responsibility of the shipper of the licensed material in accordance with NRC and DOT regulations. Reporting all radioactive shipments would be an administrative burden with minimal benefit. The NRC's regulations do require a shipper to provide advance notification of a shipment of spent nuclear fuel to both the NRC and to the Governor or designee of a State through which the shipment would be passing. The information is considered safeguards information and cannot be released to the public until after a shipment has been completed.

Comment. One commenter expressed support for NRC's acknowledging DOT's responsibility to ensure the safe shipment of spent nuclear fuel.

Response. The comment is acknowledged. No further response is required.

Comment. One commenter requested a clarification of the current status of DOT's regulations for international shipments regarding exempt quantities and concentrations.

Response. This request has been forwarded to DOT for consideration. The commenter should refer to DOT's proposed rule found at 67 FR 21328 dated April 30, 2002.

Comment. One commenter expressed concern with how the proposed regulations fit into the hierarchy of Federal, State, and local regulations. The commenter noted that DOT regulations expressly preempt and supersede State and local regulations.

Response. The State regulations augment the overall national program for the protection of public health and safety of citizens from any hazards incident to the transportation of radioactive materials. States usually adopt the Federal transportation regulations by reference. The combined efforts of DOT, NRC, and the Agreement States assure that the applicable Federal regulations are observed with respect to packaging and transportation of radioactive materials on a nationwide basis. This is accomplished through DOT, NRC, and State and local government inspection and enforcement efforts.

Comment. One commenter expressed concern that the DOT definition of "radioactive material" is now defined as "any material having a specific activity greater than 70 Bq per gram (0.002 micro curie per gram)." According to the commenter, the effect of this new definition would be to enable much more radioactivity to be exempt, thus allowing more radioactive material to move unregulated in commerce.

Response. This referenced definition change also exists in the NRC final rule. As described in the background section of this rule, NRC has analyzed the impact on dose to the public from changing the definition of "radioactive material" from the current definition 70 Bq/g (0.002 μCi/g) for all radionuclides to radionuclide-specific exemption values. After considering transport scenarios, NRC concluded that the new radionuclide-specific definition would result in an overall reduction in dose to the public when compared to the current definition.

Comment. One commenter noted that, in Table 1, the listings for Th (nat) and U (nat) (68 FR 21482) do not refer to footnote b. Because this is inconsistent with the text of the preamble, the commenter concluded that it is a typographical error that should be corrected.

Response. The comment is acknowledged and was considered in developing the final rule.

Comment. One commenter urged the NRC to consider "the relationships between and among the exposures associated with these packaging, container, and transportation regulations and all other sources of radiation exposures," to protect the public from "adverse impacts on their health and genetic integrity."

Response. The comment is acknowledged and has been considered in developing the final rule.

Comment. Three commenters expressed concern with the role of State and local governments. One commenter believes that certain States are already burdened with unusually high concentrations of hazardous and radioactive materials transport. Another commenter asked about "the status of non-Agreement States with respect to compatibility" and also wanted further "explanation of the extent to which a State or Agreement State may deviate from NRC program elements, definitions, and standards." One commenter stated that county sheriffs and the proper State officials should be notified in advance of spent nuclear fuel shipments scheduled to pass through their jurisdictions.

Response. It is NRC practice to seek input and comments from State and local governments on any NRC proposed rules. For example, in December 2000, the NRC staff forwarded the part 71 proposed rule to the Agreement States for comment before sending the rule to the Commission. Once the rule is published for public comments, NRC considers comments from all State and local governments, and as such, they play an important role in the NRC regulatory process. State officials designated by the Governor are notified in advance of spent nuclear fuel shipments made by NRC licensees, which pass through their respective States.

Comment. Several commenters criticized the proposed rule for acquiescing to the desires of the nuclear and radiopharmaceutical industries to weaken transport regulations at the expense of increased public risk.

Response. The proposed rule was developed to maintain compatibility with the IAEA transportation standards as well as to issue other NRC-initiated changes. Part 71 has been revised twice in the past 20 years to stay compatible with IAEA regulations. The risk to the public from transportation of radioactive materials were considered in the development of the NRC regulations.

Comment. Two commenters expressed concern over implications for worker safety. These commenters asked if workers would be protected from and informed of leaks and whether there is sufficient money to pay lawsuit damages. They stated that exposure to the transport vehicle itself should not exceed 10 millirems/year, and all crew compartments should be heavily shielded to reduce exposure. One commenter then asserted that workers should be trained to handle radioactive materials and informed of the risks involved.

Response. NRC radioactive material transportation regulations have always been issued and enforced to protect the worker and the public health and safety. When shippers of radioactive material follow these regulations, they are taking the protective measures called for in NRC (and DOT) regulations to protect the crew and public. The NRC and DOT regulations require worker training.

Comment. Several commenters believe that the proposed regulations increased public risk and weakened protection of public health. One commenter stated that additional independent oversight of the transport casks should be conducted regarding quality control to determine whether they are adequate for cross-country transport. This commenter also believes that the testing criteria for containers should be more demanding and require real-world conditions. Another commenter stated that nuclear shipments should be transported at off-peak hours and also supported the creation of a "vehicle-free" buffer zone ahead and behind the shipment.

Response. The commenters did not specify how the proposed rulemaking would increase public risk and weaken protection of public health. When NRC developed the proposed rule, potential impacts were carefully considered. NRC does not believe that any part of the proposal will result in a significant impact on public health and safety. NRC's quality assurance programs and inspections determine when additional oversight is warranted. The request for additional and more demanding testing is not specific; it does not specify how and why particular testing procedures are inadequate. These procedures have been carefully verified by NRC to ensure adequate safety.

NRC does not support the commenter's suggestion to transport at "off-peak" hours and use a buffer zone as an NRC safety requirement. There is no safety basis to justify restricting travel only to off-peak hours, and creating (and enforcing) buffer zones could result in greater traffic impacts

and safety issues. Moreover, using these restrictions is not warranted based on the more than 1300 shipments without incident.

Comment. One commenter urged the NRC to prohibit transport of long-lived spent nuclear fuel via air or via barge across large waterways. The commenter also urged NRC to disallow the transport of such fuel in combination with people, animals, or plants.

Response. Existing NRC and DOT regulations establish requirements that must be met for safe shipment of spent nuclear fuel by transportation modes (*i.e.*, truck, barge, or air). The commenter's second recommendation is noted, but it is beyond the scope of the proposed rule.

Comment. One commenter stated that dumping radioactive material into oceans or landfills and incineration of such materials should never be allowed.

Response. The comment is acknowledged. However, it is beyond the scope of this rulemaking, and therefore no further response is required.

Comment. One commenter suggested that NRC, in concert with other agencies, identify and recover formerly regulated nuclear materials that have been deregulated or have escaped from control in the past.

Response. This comment is beyond the scope of this rule.

Comment. One commenter requested an explanation of how NRC's official proposal on the changes in packaging and transporting of radioactive materials would affect industrial radiology.

Response. Generally, industrial radiography cameras are designed to meet NRC requirements for Type B transportation packages. Of the 11 IAEA adoption issues and the 8 NRC-initiated issues, none have a significant impact upon the transport package design requirements for radiography cameras.

Comment. One commenter expressed support for compatibility among the Agreement States. This commenter indicated that it is appropriate for States to have the ability to develop materials necessary for intrastate shipments. However, for interstate shipments, the commenter stated that it is necessary for one State to be compatible with the rest of the country for the country to be compatible with the world.

Response. NRC notes that the commenter's views are consistent with the Commission's Policy Statement on the Adequacy and Compatibility of Agreement State Programs, which became effective on September 3, 1997 (62 FR 46517).

Comment. Several commenters urged NRC to improve its scientific understanding and bases for the proposed rulemaking. Two commenters suggested that NRC complete the comprehensive assessments of TS–R–1 and future IAEA standards, the PPS, and real cask tests before proceeding with this rulemaking.

Response. NRC believes it has an adequate technical basis to make determinations on the adoption of regulatory changes to address the issues that are the subject of this rulemaking. The ongoing PPS is beyond the scope of this rulemaking.

III. Discussion

This section is structured to present and discuss each issue separately (with cross references as appropriate). Each issue has four parts: Summary of NRC Final Rule, Affected Sections, Background, and Analysis of Public Comments on the Proposed Rule.

A. TS–R–1 Compatibility Issues

Issue 1. Changing Part 71 to the International System of Units (SI) Only

Summary of NRC Final Rule. The NRC has decided to continue using the dual-unit system (SI units and customary units) in part 71. This will not conflict with TS–R–1, which uses SI units only, because TS–R–1 does not specifically prohibit the use of a dual-unit system.

We have decided not to change part 71 to use SI units only nor to require NRC licensees and holders and applicants for a Certificate-of-Compliance (CoC) to use SI units only because doing so will conflict with NRC's Metrication Policy (61 FR 31169; June 19, 1996) which allows a dual-use system. The NRC did not make metrication mandatory because no corresponding improvement in public health and safety would result; rather, costs would be incurred without benefit. Moreover, as noted in the proposed rule (67 FR 21395–21396), the change to SI units only could result in the potential for adverse impact on the health and safety of workers and the general public as a result of unintended exposure in the event of shipping accidents, or medical dose errors, caused by confusion or erroneous conversion between the currently prevailing customary units and the new SI units by emergency responders or medical personnel.

Affected Sections. None (not adopted).

Background. TS–R–1 uses the SI units exclusively. This change is stated in TS–R–1, Annex II, page 199: "This edition of the Regulations for the Safe Transport of Radioactive Material uses the International System of Units (SI)." The change to SI units exclusively is evident throughout TS–R–1. TS–R–1 also requires that activity values entered on shipping papers and displayed on package labels be expressed in SI units (paragraphs 543 and 549). Safety Series No. 6 (TS–R–1's predecessor) used SI units as the primary controlling units, with subsidiary units in parentheses (Safety Series 6, Appendix II, page 97), and either unit was permissible on labels and shipping papers (paragraphs 442 and 447).

The NRC Metrication Policy allows a dual-unit system to be used (SI units with customary units in parentheses). The NRC Metrication Policy was designed to allow market forces to determine the extent and timing for the use of the metric system of measurements. The NRC is committed to work with licensees and applicants and with national, international, professional, and industry standards-setting bodies (*e.g.*, American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), and American Society of Mechanical Engineers (ASME)) to ensure metric-compatible regulations and regulatory guidance. The NRC encouraged its licensees and applicants, through its Metrication Policy, to employ the metric system wherever and whenever its use is not potentially detrimental to public health and safety, or its use is economic. The NRC did not make metrication mandatory by rulemaking because no corresponding improvement in public health and safety would result, but rather, costs would be incurred without benefit. As a result, licensees and applicants use both metric and customary units of measurement.

According to the NRC's Metrication Policy, the following documents should be published in dual units: new regulations, major amendments to existing regulations, regulatory guides, NUREG-series documents, policy statements, information notices, generic letters, bulletins, and all written communications directed to the public. Documents specific to a licensee, such as inspection reports and docketed material dealing with a particular licensee, will be issued in the system of units employed by the licensee.

Currently, part 71 uses the dual-unit system in accordance with the NRC Metrication Policy.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Eight commenters stated they appreciated the NRC's decision to maintain both the international and the familiar system of becquerels and curies and sieverts and rem.

Response. No response is necessary.

Issue 2. Radionuclide Exemption Values

Summary of NRC Final Rule. The final rule adopts, in §§ 71.14, 71.88 and Appendix A, Table A–2, the radionuclide activity concentration values and consignment activity limits in TS–R–1 for the exemption from regulatory requirements for the shipment or carriage of certain radioactive low-level materials. In addition, the final rule provides an exemption from regulatory requirements for natural material and ores containing naturally occurring radionuclides that are not intended to be processed for use of these radionuclides, provided the activity concentration of the material does not exceed 10 times the applicable values. These amendments conform part 71 with TS–R–1 and with DOT's parallel IAEA compatibility rulemaking for CFR 49.

During the development of TS–R–1, it was recognized that there was no technical justification for the use of a single activity-based exemption value for all radionuclides for defining a material as radioactive for transportation purposes (a uniform activity concentration basis) and that a more rigorous technical approach would be to base radionuclide exemptions on a uniform dose basis. The values and limits in TS–R–1, and adopted in Appendix A, Table A–2, establish a consistent dose-based model for minimizing public exposure. Overall, NRC's analysis shows that the new system would result in lower actual doses to the public than the uniform activity concentration basis system. NRC's regulatory analysis indicated that adopting the radionuclide-specific exemption values contained in TS–R–1 is appropriate from a safety, regulatory, and cost perspective. Moreover, the final rule assures continued consistency between domestic and international regulations for the basic definition of radioactive material in transport.

Affected Sections. Sections 71.14, 71.88, and Appendix A.

Background. The DOT previously used an activity concentration threshold of 70 Bq/g (0.002 μCi/g) for defining a material as radioactive for transportation purposes. DOT regulations applied to all materials with activity concentrations that exceeded this value. Materials were exempt from DOT's transportation regulations if the activity concentration was equal to or below this value. The 70-Bq/g (0.002-μCi/g) activity concentration value was applied collectively for all radionuclides present in a material.

In § 71.10, the NRC used the same activity concentration threshold as a means of determining if a radioactive material was subject to the requirements of part 71. Materials were exempt from the transportation requirements in part 71 if the activity concentration was equal to or below this value. Although the materials may be exempt from any additional transportation requirements under part 71, it is important to note that the requirements for controlling the possession, use, and transfer of materials under parts 30, 40, and 70 continue to apply, as appropriate, to the type, form, and quantity of material. Basically, the radionuclide exemption values mean that licensed low radioactivity materials are not required to be handled as hazardous materials while they are being transported. These exemption values do not mean that these materials are released from other regulatory controls, including the controls that apply to the disposal or release of radioactive material.

During the development of TS–R–1, it was recognized that there was no technical justification for the use of a single activity-based exemption 70-Bq/g (0.002-μCi/g) value for all radionuclides. It was concluded that a more rigorous technical approach would be to base radionuclide exemptions on a uniform dose basis, rather than a uniform activity concentration basis.

By 1994, the IAEA had developed Safety Series No. 115 (also known as Basic Safety Standard, or BSS) and a set of principles for determining when exemption from regulation was appropriate. One exemption criterion was the effective dose expected to be incurred by a member of the public from a practice (*e.g.*, medical use of radiopharmaceuticals in nuclear medicine applications) or a source within a practice should be unlikely to exceed a value of 10 μSv (1 mrem) per year. IAEA researchers developed a set of exposure scenarios and pathways which could result in exposure to workers and members of the public. These scenarios and pathways were used to calculate radionuclide exemption activity concentrations and exemption activities which would not exceed the recommended dose.

To investigate the exemption issue from a transportation perspective during the development of TS–R–1, IAEA Member State researchers calculated the activity concentration and activity for each radionuclide that would result in a dose of 10 μSv (1 mrem) per year to transport workers under various BSS and transportation-specific scenarios. Due to differences in radionuclide radiation emissions, exposure pathways, etc., the resulting radionuclide-specific activity concentrations varied widely. The appropriate activity concentrations for some radionuclides were determined to be less than 70 Bq/g (0.002 μCi/g), while the activity concentrations for others were much greater. However, the calculated dose to transport workers that would result from repetitive transport of each radionuclide at its exempt activity concentration was the same ((10 μSv) (1 mrem)) per year. For the single activity-based value, the opposite was true (*i.e.*, the exempt activity concentration was the same for all radionuclides (70 Bq/g) (0.002 μCi/g)), but the resulting doses under the same transportation scenarios varied widely, with annual doses ranging from much less than 10 μSv (1 mrem) per year for some radionuclides to greater than 10 μSv (1 mrem) per year for others. A comparison of the transportation scenario doses resulting from the single (70 Bq/g (0.002 μCi/g)) activity concentration value and the radionuclide-specific activity concentration values shows that the radionuclide activity concentration values reduced the variability in doses that were likely to result from exempt transport activities.

The basis for the exemption values indicates that materials with very low hazards can be safely exempted from the transportation regulations (*see* draft Advisory Material for the Regulations for the Safe Transport of Radioactive Material, TS–G–1.1, paragraphs 107.5 and 401.3). If the exemptions did not exist, enormous amounts of material with only slight radiological risks (materials which are not ordinarily considered to be radioactive) would be unnecessarily regulated during transport.

Some of the lower activity concentration values might include naturally occurring radioactive material (NORM). As an example, ores may contain NORM. Regarding the transport of NORM, one petroleum industry representative stated that there are no findings that indicate the current standard fails to protect the public, and that there is no benefit in making the threshold more stringent. Further, it would have a significant impact on their operations. Other similar comments were received during the public meetings. The overall impact would be that some material formerly not subject to the radioactive material transport regulations may need to be transported as radioactive material and therefore

meet the corresponding applicable DOT transport requirements.

IAEA recognized that application of the activity concentration exemption values to natural materials and ores might result in unnecessary regulation of these shipments and established a further exemption for certain types of these materials. Paragraph 107(e) of TS–R–1 further exempts: "Natural material and ores containing naturally occurring radionuclides which are not intended to be processed for use of these radionuclides provided the activity concentration of the material does not exceed 10 times the values specified in paragraphs 401-406."

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter opposed the reuse of radioactive materials in other products, arguing that this is not based on sound science, but on commercial judgment. Several commenters expressed general objections to the proposal to exempt certain amounts of radionuclides from transportation regulatory control and urged NRC to help prevent more radioactive waste from being deregulated. Seven commenters stated that adopting these exemptions would remove a significant barrier to the purposeful release of radioactive materials from nuclear power and weapons production into raw materials that can be used to make daily items (*e.g.*, hip replacements, braces, and toothbrushes) that come into contact with members of the public.

Another commenter stated that the exempted levels could potentially provide a back door to recycle and release of radioactive material.

One commenter said that the NRC's stated objectives to facilitate nuclear transportation and harmonize international standards should not supersede the NRC's mandate to protect public health and safety. The commenter also stated that the proposed regulations do not do enough to protect public health. The commenter opposed the technically significant motive for adopting exemption values, which is to facilitate radioactive "release" and "recycling" or dispersal of nuclear waste into daily commerce and household items.

One commenter stated that NRC regulations should not treat radioactive materials like nonradioactive materials. Two other commenters criticized the proposed regulations for treating radioactive substances as if they were not radioactively contaminated.

Response. The transportation exemption values do not establish thresholds for the release of radioactive material to unlicensed parties or to the environment. They do not relieve the recipient from regulations that apply to the use or release of that material. Also, the transportation regulations do not authorize the possession of licensed material (§ 71.0(c)). Thus, no unauthorized party may receive or possess radioactive material just because the material is exempted from transportation requirements. Radioactive material transported under the rule remains subject to separate regulatory safety requirements regarding possession, use, transfer, and disposal.

Comment. One commenter stated that the use of "or" in proposed § 71.14(a)(2) (67 FR 21448) suggests that there is no consignment limit if the exempt activity concentration limits are not exceeded. NRC was asked to replace "or" by "and" to prevent deliberate dilution of radioactive material to obtain exemption from transport regulations.

Response. The comment is correct in that the consignment activity limit does not apply to materials that do not exceed the exempt activity concentration. Under the final rule, the transport regulations apply only to radioactive material for which both the activity concentration for an exempt material and the activity limit for an exempt consignment are exceeded, so the use of "or" in the regulatory text is correct. When describing materials that are subject to the regulations, "and" is the correct term; when describing materials that are not subject to the regulations, "or" is the correct term. Because § 71.14 defines materials that are not subject to the regulations, "or" is the correct term.

Material consignments that exceed the exempt activity concentration, but not the exempt consignment limit, are not regulated in transport due to the small quantity of material being transported. Material consignments that exceed the exempt consignment limit, but not the exempt activity concentration, are not regulated in transport due to the low radioactivity concentration of the material being transported. The NRC has no information to support the notion that radioactive material is diluted to obtain exemption from transport regulations. The NRC does not propose any regulatory action in this regard.

Comment. One commenter expressed concern both that the proposed rule would exempt radionuclide values at various levels and that an international body created these exemption levels.

Response. The activity concentration exemption values do vary by radionuclide. However, the doses to the public estimated to occur from using these values under the transport scenarios are low. The U.S. participated in assessing the dose impacts from the use of the exemption values in transport.

Comment. Another commenter asked if it is really necessary for NRC to adopt the entire IAEA rule to accomplish its goals.

Response. There are a number of specific goals associated with this rulemaking, one of which is harmonization of NRC regulations with IAEA's TS–R–1 and DOT regulations. NRC is not adopting TS–R–1 in its entirety in this rulemaking. However, with respect to revising exemption values, the NRC staff believes adoption of the exemption values from TS–R–1 is warranted to maintain consistency between domestic and international regulations.

Comment. One commenter asked if the NRC told DOT that the American public has rejected these proposed standards three times in the past decade, and if DOT has advised IAEA of these objections. The commenter said that if the IAEA has not been informed of the American public's resistance to these regulations, NRC needs to inform the agency (DOT and IAEA) immediately.

Response. The NRC acknowledges this comment, including both the NRC's and DOT's earlier opposition to the IAEA proposed exemption values. This rule is the first time that IAEA exemption values are adopted and are being carried out for maintaining compatibility with international transportation regulations.

Comment. One commenter asked about the amount of money being spent regulating levels below the exemption values. The commenter asked if more money would be spent attempting to verify the proposed exemption values than would be saved by deregulating them. The commenter wanted to know if there is any guarantee that money saved by deregulating levels below the exemption values will be spent on improving public safety in other areas.

Response. The NRC believes the benefits of the exemption values will outweigh the costs. NRC analyses lead the NRC staff to believe that the increase in regulatory efficiency between regulatory agencies and the facilitation of international shipments make the exemption values advantageous overall. Further, as part of this rulemaking, NRC specifically requested information on the costs and benefits of the proposed

changes. To the extent this information was received, it was considered in the development of NRC's position. Lastly, it is beyond the scope of this rulemaking to guarantee that any money saved will be spent on improving public safety elsewhere.

Comment. One commenter suggested that the NRC could not determine costs or savings from the proposed radionuclide exemption values, in part because the NRC does not know what amounts will be exempted. The commenter also explained that although NRC could attempt to do projections based on the current industry, NRC could not know what amounts would be exempted in the future.

Response. The NRC fully realizes the difficulties associated with predicting the impacts of implementing the exemption values. The NRC also agrees that it is difficult to predict what amounts would be exempted under this final rule, just as it is difficult to assess the amount of material exempted under the current regulations. However, a large majority of commercial radioactive materials are shipped in highly purified forms that far exceed the exemption levels. NRC expects this would continue to be the case under the exemption values. For all of these reasons, the NRC staff explicitly asked for data on the anticipated impacts of the proposed rule. The NRC staff used these data to aid decisionmaking. In general, the NRC expects that the increase in regulatory efficiency among regulatory agencies and the facilitation of international shipments will outweigh any increased costs of shipments resulting from the changes in the exemption values.

Comment. One commenter requested that a cost-benefit analysis be done to account for both the proposed rule's complexity and its enforcement difficulties. The commenter notes that no cost-benefit analysis had been done on this issue and that the NRC chose it subjectively.

Response. The draft regulatory analysis considered the benefits and costs associated with adoption of the radionuclide exemption values from TS–R–1 using the best available information. In addition, the NRC decided to adopt the dose-based exemption values because the NRC believes these values would actually reduce exposure in transport by establishing a consistent dose-based model for minimizing public exposure. This benefit is in addition to the expected harmonization and financial benefits. NRC disagrees with the commenter's assertion that the exemption values were chosen subjectively. NRC used the best available information and gathered as much information as possible from the public, the regulated community, and outside experts. The purpose of this rulemaking, with its public meetings and public comment period, is to ensure that all affected parties have adequate opportunity to register their comments and provide supporting materials to justify their position (and thus better influence the development of NRC's final position).

Comment. Another commenter stated that the technical benefits of the proposed rule do not outweigh the associated costs and efforts.

Response. Because NRC staff are unclear what the commenter means by "technical benefits," NRC cannot specifically respond to this comment. Overall, NRC believes that the benefits that will accrue with adoption of exemption values from TS–R–1 (*e.g.*, harmonization with other regulatory agencies and facilitation of international shipments) will outweigh the costs (*e.g.*, administrative changes, determining whether packages are exempt, and regulating previously exempt packages).

Comment. One commenter opposed the proposed exemption values because they were not derived directly and did not directly involve public input or a cost-benefit analysis.

Response. A preliminary RA that evaluated possible costs and benefits was conducted as part of the development of this rule. Additional information obtained during the rulemaking process was considered in determining NRC's final position on adopting the TS–R–1 exemption values.

Comment. One commenter stated that, although the revised limits are not expected to create any significant burden to the Naval Nuclear Propulsion Program, use of the new limits could create a cumbersome work practice for some shipments. All low-level shipments that are currently exempt will require a detailed evaluation to ensure that activity concentrations for each radionuclide are acceptable. For example, thoriated tungsten weld rods and soil from site excavations would require individual isotope analyses at an additional expense. The commenter stated that the current 70–Bq/g activity concentration limit for domestic shipments should be retained.

Response. The comment is consistent with others from the shipping community (*i.e.*, the radionuclide activity concentration and activity exemption values are likely to be more cumbersome to work with but do not pose an excessive burden). The NRC agrees that expenses may be involved in achieving compliance with these values but notes that expenses are also associated with determining compliance with the current 70–Bq/g (0.002–μCi/g) value. Most shipments of radioactive materials involve materials that have been processed to concentrate radioactivity. These materials are known by shippers to greatly exceed the exemption values, and are packaged and transported in accordance with the radioactive material transporation safety regulations. Thus the exemption values are irrelevant to the majority of radioactive material shipments, such as most shipments in the Naval Nuclear Propulsion Program and most shipments in industry as well. The exemption values are relevant to shipments of low activity concentration. For these shipments, shippers will need to establish either by process knowledge or analysis whether a shipment exceeds the exemption values and is regulated in transport as a radioactive hazardous material, or does not exceed the exemption values and may be shipped as non-hazardous material (regular freight). Most shipments that minimally exceed the exemption values are likely to be transported as limited quantities, which would impose a minimal regulatory burden on shippers. Overall, NRC believes that the benefits that will accrue with adoption of exemption values from TS–R–1 (*e.g.*, harmonization with other regulatory agencies and facilitation of international shipments) will outweigh the costs (*e.g.*, administrative changes, determining whether packages are exempt, and regulating previously exempt packages).

Comment. Two commenters stated that the proposed rule would increase industry's regulatory burden. In particular, the NRC was told that the proposed rule is too conservative and would unnecessarily burden industry, particularly in the case of bulk shipments of contaminated materials. The proposed exemption thresholds would increase worker exposure to radioactive materials.

Response. NRC acknowledges that the exemption values impose some new complexity and economic burden on industry. However, NRC believes that the increase in costs will be minimal. The NRC believes that the exemption values represent a good balance between economic and public health interests. From an economic perspective, the increased costs of the exemption values are outweighed by the benefits of conforming to other regulatory agencies and facilitating international shipments. NRC staff recognizes that preshipment requirements under the exemption values may increase some low-level exposures, but the NRC still expects that

the shift to a consistent set of dose-based exemption values will minimize the potential dose to transport workers.

Comment. One commenter stated that, although cost reduction was one incentive for the rule, the proposed rule as written was so complicated that enforcement costs would rise.

Response. NRC acknowledges the comment and, as previously discussed, NRC believes that any additional enforcement or other costs will be minimal due to the anticipated benefits of having only one set of shipping requirements, as well as the cost savings that would result from moving some materials outside the scope of transport regulation.

Comment. Two commenters stated that the proposed regulations failed to properly implement IAEA exemption values regarding naturally occurring radioactive material, which would dramatically expand the universe of regulated materials and increase the burden on the regulated community. One commenter stated that other agencies, such as the Occupational Safety and Health Administration (OSHA), afford adequate protection from naturally occurring radioactive materials for workers and the public, and therefore NRC should not enter this regulatory arena. This commenter also stated that the proposed exemption values would also lead to a conflict with the Resources Conservation and Recovery Act (RCRA), which stipulates that waste disposal sites may not accept radioactive materials of more than 70 Bq/g.

Another commenter specifically noted that the NRC has not implemented the exemption provisions for phosphate ore and fertilizer; zirconium ores; titanium minerals; tungsten ores and concentrates; vanadium ores; yttrium and rare earths; bauxite and alumina; coal and coal fly ash. The commenter urged NRC to consider the activity concentration of the parent nuclide in determining exemption values.

Response. Section 71.14(a)(1) provides the same exemption for low level materials (*e.g.*, natural materials and ores) that IAEA provides in TS–R–1 paragraph 107(e). The exemption multiple for activity concentration (10 times the values listed in 10 CFR part 71, Table A–2) applies to natural material and ores containing naturally occurring radionuclides which are not intended to be processed for use of these radionuclides. If the materials identified in the comment meet the definition and are not being processed to use radionuclides, the exemption multiple would apply. Thus, the burden indicated by the commenter would not occur.

The activity concentration for exempt material applies to each radionuclide listed in Table A–2. For radionuclides in secular equilibrium with progeny, the listed activity concentration applies to the listed radionuclide (as parent), and was determined considering the contribution from progeny. Table A–2, as published on April 30, 2002; 67 FR 21472, contains several typographical errors, including the omission of the reference to footnote (b) for the U (nat) and Th (nat) radionuclides. These errors have been corrected in this final rule.

Comment. One commenter was concerned that the exemption values in TS–R–1 could result in the unnecessary regulation of certain materials that are currently exempt from NRC regulation under § 40.13. The commenter urged NRC to allow unimportant quantities to remain exempt. The commenter was concerned that the public and operators of RCRA disposal facilities may question the safety of materials that were previously exempt but are not exempt under the new regulations. The commenter pointed out that the actual risk would not change because RCRA will not change.

Response. Materials that are exempt (*i.e.*, not licensed) under § 40.13 are not subject to part 71 under the current or final transportation regulations. Nothing in this final rule affects the exemption status of materials subject to Part 40.

RCRA sites can continue to use the 70–Bq/g (0.002–μCi/g) value as a material acceptance criterion at their option. The final rule establishes new exemption values for radioactive materials in transport that differ from 70 Bq/g (0.002 μCi/g) that might be used (for nontransport purposes) at RCRA sites. However, the final rule does not preclude the shipment of materials to RCRA sites in a manner that would satisfy both transportation and site safety regulations.

Comment. Ten commenters expressed opposition to the exemption values. One commenter argued that the proposed guidelines should allow no exemptions. Two commenters stated that the proposed exemptions would negatively impact public health. Two commenters argued that the redefinition would pose a threat to public health. Two commenters opposed weakening regulations that would reduce the public safety and health through new definitions or accepted concentration values. Two commenters emphasized that there is no justification for increasing allowable concentrations because there are ramifications beyond transportation, and that using a dose-based system is less measurable, enforceable, and justifiable.

Some commenters added that if NRC needed to adopt risk-based standards, NRC should adopt the standards that would reduce the allowable exemptions. One commenter criticized the proposed rule for increasing the allowable contamination in materials. One commenter disagreed with the current 70 bequerels-per-gram exemption level and urged NRC to change only the exemption levels to make them more protective for isotopes whose exempt concentrations go down.

One commenter also stated that NRC had not actively participated in determining the proposed exemption values.

Response. NRC disagrees with the comment that no exemptions should be allowed. Because almost all materials contain at least trace quantities of radioactivity, if there were no exemptions, essentially all materials transported in commerce would be treated as radioactive materials. This would entail considerable expense and impact on commerce without commensurate benefit to public health and safety.

The NRC disagrees that the proposed exemptions would negatively impact public health. The NRC's analysis of the radionuclide-specific exemption values indicates the overall dose impact of their adoption would be low (much less than background levels), and lower than that of the single-value exemption currently in place. Please see the Background section under this issue for further details.

The NRC acknowledges the comment that there is no justification for increasing allowable concentrations. However, the NRC believes the benefits of the exemption values will outweigh the costs. NRC analyses lead the NRC staff to believe that the increase in regulatory efficiency between regulatory agencies and the facilitation of international shipments make the exemption values advantageous overall. The NRC finds the low uniform-dose approach that was used in the development of the exemption values to be acceptable.

Although additional measurements may be necessary under the new requirements, the industry has not indicated that these requirements pose an excessive burden. The NRC does not believe the radionuclide exemption values would be less enforceable than the current single exemption value.

Lastly, as a working participating member of the IAEA, both NRC and DOT staff participated in the development of the exemption values.

Comment. One commenter requested information on calculations for dose impacts to members of the public, particularly regarding recycling and the possibility of exempting materials that pose a radiation hazard to the public.

Response. An assessment of public dose that might result from adopting the exempt activity concentrations and exempt activities per consignment under transportation scenarios may be found at the following reference: A. Carey *et al.* The Application of Exemption Values to the Transport of Radioactive Materials. CEC Contract CT/PST6/1540/1123 (September 1995). The NRC has performed no assessment regarding recycling because that is beyond the scope of this rulemaking.

Comment. A commenter requested the risk and biokinetic data supporting the proposed exemption values. The commenter also wanted to know more about who determines what data NRC uses, including the physiological data used to justify the change in dose models.

Response. The basic radiological protection data used in the development of the exempt activity concentrations and exempt activities per consignment may be found at the following reference: International Basic Safety Standards for Protection Against Ionizing Radiation and for the Safety of Radiation Sources, Safety Series No. 115, IAEA 1996.

Comment. Two commenters stated that it is unclear how or why the risk decreases for 222 of the 382 listed radioisotopes, when the allowable concentrations for those radioisotopes increase to above 70 becquerels. The commenters asked how the "risk or dose goes down" while some exempt quantities could lead to more than the "worker doses to members of the public from unregulated amounts of exempt quantities of radioisotopes."

Response. Under the previous system, radioactive materials exceeding the 70–Bq/g (0.002–μCi/g) activity concentration were regulated in transport. Although the 70–Bq/g (0.002–μCi/g) value applied to all radionuclides, different radionuclides resulted in different doses to the public when transported at that activity concentration (as calculated using the transport scenarios). The transport scenario doses for many radionuclides when transported at 70 Bq/g (0.002 μCi/g) are less than the reference dose of 0.01 mSv/y (1 mrem/y). However, for other radionuclides, the transport scenario doses at 70 Bq/g (0.002 μCi/g) are greater than the reference dose of 0.01 mSv/y (1 mrem/y). Under the radionuclide-specific approach, the calculated doses are more representative, and the average dose (considering all radionuclides) is lower than under the 70–Bq/g (0.002–μCi/g) approach. Overall, the NRC's analysis shows that the new system would result in lower actual doses to the public than the current system.

Comment. Another commenter urged NRC to either make exemption values more stringent or not adopt any new values at all.

Response. The comment provides no justification to make the exemption values more stringent. The IAEA and other Member States have adopted the new system. Failure to adopt the new system would put the U.S. at a competitive disadvantage in international commerce without commensurate benefit to public health and safety and would allow the continued shipment of exempt materials that are calculated to produce higher doses to workers and members of the public.

Comment. One commenter asked that NRC provide a separate activity concentration threshold, and suggested 2,000 picocuries per gram, for samples collected for laboratory analysis in situations where relevant data is unavailable. The commenter believes that the current proposed threshold of 2.7 picocuries per gram is too restrictive for samples acquired for laboratory analysis.

Response. Although data is apparently unavailable for the samples the commenter refers to, it appears the samples are minimally radioactive and, therefore, could be shipped as a limited quantity, one of the least burdensome shipments. As we received no other comment on this issue, the commenter's concern does not appear to be widespread. The NRC has concluded that the information and justification provided do not warrant the introduction of a provision in part 71 that would not be compatible with TS–R–1.

Comment. One commenter asked that NRC provide for expeditious transportation of discrete solid sources encountered in public areas. The commenter noted that part 71 currently permits a source of up to 2.7 millicuries to be transported as a limited quantity, even if no relevant data about the source is available. The commenter then asked NRC to retain this arrangement for sources encountered in public areas because it has been a useful provision.

Response. The quantities involved (2.7 mCi) would not normally require NRC-certified packaging, thus the current part 71 rulemaking would have little bearing upon them. The NRC understands that DOT has a system of exemptions in place, which has been coordinated with State regulators, to facilitate the safe and timely transport of sources discovered in the public domain.

Comment. One commenter asked about the proposed mechanism for approving nondefault exemption values. Some commenters requested further information on how default exemption values could be calculated from the A_1 and A_2 values.

Response. The scenarios used to develop the exemption values were selected to model exposures that could result from relatively close distances and long duration exposure times to exempt materials. The scenarios used in the Q-system were selected to model exposures that could result from shorter-term exposure to the contents of a damaged Type A package following an accident. Because of the differences in the exposure scenarios and the resulting differences in the equations used to calculate the values, the Q-system cannot be used to calculate activity limits for exempt consignments or exempt activity concentrations.

Comment. One commenter stated that the landfill disposal of NORM is outside NRC jurisdiction when technologically advanced NORM is involved with RCRA-regulated hazardous constituents. The commenter explained that numerous RCRA landfills around the country have adopted the EPA- and State-approved programs for the disposal of NORM. The commenter wondered how the proposed changes in radionuclide exemption values would affect the regulations governing these landfills.

Response. Part 71 has no direct effect on the regulations governing the licensing or operation of landfills. The comment is beyond the scope of this rulemaking.

Comment. Two commenters opposed the regulation of NORM ores and natural materials, including materials derived from those substances, because it does not include appropriate exemptions and will result in unjustified increased costs and transportation burdens and liabilities.

Response. This rule does not extend NRC's scope of regulation of radioactive material. If a material, such as NORM, was not previously subject to NRC regulation, it would not be subject to regulation under this final rule. For regulatory consistency, both DOT and NRC publish the radionuclide exemption tables, including the 10 times exemptions for natural materials and ores containing NORM. Also, part 71 only applies to material licensed by

the NRC, and NRC does not regulate NORM.

Comment. One commenter suggested that NRC reevaluate the proposed factor for the allowance of NORM. This commenter recommended that NRC consider using a factor of 100 rather than 10, because many materials are not hazardous and do not require more stringent shipping regulations.

Response. The comment does not provide compelling data to support the requested change. Furthermore, the requested change would result in the U.S. being noncompatible with international transportation regulations. Therefore, no change is made.

Comment. One commenter stated that this rule has taken the focus off of more important issues in place of issues that are of less concern, such as the regulation of NORM. The commenter stated that lowering exemption values could distract attention from materials that would otherwise be of concern to law enforcement, particularly regarding transportation across U.S. borders.

Response. The exemption values are considered by shippers when preparing radioactive materials for transport. The NRC staff does not believe these rule changes will affect law enforcement activities.

Comment. One commenter was concerned that "uranium and thorium levels in phosphate, gypsum, and coal cannot be considered safe simply because they are naturally occurring. The commenter added that from a public health point of view, there is no need to determine whether alpha emissions above the 70–Bq/g (0.002–μCi/g) threshold are naturally occurring or man-made, their effect on somatic cells and germ cells is the same." The commenter was concerned that NRC has not proposed sufficient regulations regarding the "shipment of ores and fossil fuels with regard to radioactive levels of naturally occurring radionuclides." The commenter requested that NRC provide an analysis of the "regulatory burden of radionuclide HMR on the fertilizer, construction, and fossil-fuel energy industries."

Response. NRC's transportation regulations apply to NRC licensees that transport licensed material and require that licensees comply with U.S. DOT Hazardous Materials Regulations. The DOT regulations previously included the 70–Bq/g (0.002–μCi/g) value in the definition of radioactive material, and materials determined to be less than that activity concentration did not satisfy DOT's definition of a radioactive material and were not regulated as hazardous material in transport. The DOT definition applied regardless of whether the material was naturally occurring or not.

With regard to burden, this rule adopts a change in the transportation exemption for radioactive materials from a single value to radionuclide-specific values. In its proposed rule, NRC requested specific information on the impact of that change. The information provided to NRC is presented in the regulatory analysis accompanying this rule.

Comment. One commenter suggested that NRC not use the wording in § 71.14(a)(1), "Natural materials * * * that are not intended to be processed for the use of these radionuclides * * *," because it unreasonably requires the shipper to know the intended use of the material. The commenter emphasized that NRC should base transport regulations solely on the radiological properties of the material shipped.

Response. This provision applies to a subset of the industry that processes an ore that contains radioactive material, not for the radioactive material, but for some other element, mineral, or material. For example, this provision would apply to the processing of an ore during which thorium or uranium was produced incidentally in a waste stream, but would not apply to the processing of an ore to extract thorium or uranium for use or sale. NRC staff believes the industry can reasonably be expected to determine the intent for processing the ore when that ore is shipped to a consignee.

Comment. One commenter indicated that, should the exemption values be adopted in a way that departs from IAEA, newly regulated entities could face high monetary penalties for failure to comply with the regulations due to DOT's enforcement penalty policies. The commenter noted that DOT regulations preempt and supersede State and local regulations, so these regulations make it more difficult for people to protect themselves from the dangers of exposure to radiation.

Response. The NRC staff believes the rule adopts the exemption values in a manner that is compatible with the IAEA regulations and with a parallel DOT final rule.

Comment. One commenter asked the NRC if States whose regulations are more protective than the proposed rule would have to abandon those regulations if NRC adopted the proposed rule.

Response. States do not have regulations that are more protective than those in this rulemaking for the transportation of radioactive materials. State regulations in this area are essentially identical to those of the Federal government to eliminate any conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of radioactive materials on a nationwide basis.

Comment. One commenter stated that there is no way to know how much is being exempted in terms of curies or becquerels because there is no limit on the number of negligible doses from exemptions.

Response. The dose criteria used in determining the activity concentrations for exempt materials ensure that the doses (from either single or multiple sources) do not reach unacceptable levels, and will therefore be far below public dose limits. Quantifying exempted materials (*i.e.*, those materials that are not regulated as radioactive material in transport) would impose a significant burden without commensurate benefit to public health and safety.

Comment. One commenter expressed concern that, for some members of the public, exposure could be over 100 millirem per year. The commenter understood from the proposed rule that the dose-based exemption values are designed to deal with transport worker exposures in the range of 25 to 50 millirem per year. The commenter requested information about how the expected annual dose to transport workers changes under the proposed rule, particularly if it increases or decreases.

Response. The NRC staff notes that exposures to members of the public are more likely to be over 1 mSv (100 mrem) per year under the current single exemption value than under the radionuclide-specific system. However, these are dose estimates; the transport scenarios used to estimate these doses overstate actual doses by overstating exposure periods in a year (50–400 hrs/yr) and exposure distances [less than 1.52 m (5 ft)] to radioactive materials in transport.

For those radionuclides with a relatively low estimated dose for transport at 70 Bq/g (0.002 μCi/g) under the transport scenarios, the estimated dose will increase under the dose-based exemptions; for those radionuclides with a relatively high estimated dose for transport at 70 Bq/g (0.002 μCi/g) under the transport scenarios, the estimated dose will decrease under the dose-based exemptions. Even in those instances where the estimated dose increases under the final rule, the dose remains low and the average dose (considering all radionuclides) is lower under the radionuclide-specific system.

Comment. One commenter questioned the composition of a list of 20 representative nuclides used to estimate the average annual dose per radionuclide. The commenter asserted that, among the 20 representative nuclides, a minority of nuclides whose doses decrease in the proposed regulations were overrepresented. The commenter stated that most of the dose concentrations increase, some of them dramatically.

Response. The 20 radionuclides referred to were chosen to be representative of the radiation types (alpha, betas of various energies, and gamma) most commonly encountered in transport and were used to provide a representative measure of the proposed rule's likely impact.

Although the radionuclide activity concentration values more often exceed 70 Bq/g (0.002 μCi/g) than fall below it, the distribution of all the new exemption values centers just above 70 Bq/g (0.002 μCi/g).

It is recognized that the exempt activity concentration for some radionuclides (those radionuclides with very low doses under the transport scenarios when transported at 70 Bq/g (0.002 μCi/g)) will increase under a dose-based exemption system. However, the measure of impact from the change in exemption values is the estimated dose, and that remains low, even for radionuclides where the exempt activity concentration increases above 70 Bq/g (0.002 μCi/g). The radiation protection benefit from the radionuclide-specific approach is that the highest potential doses are reduced as well as the average dose from all radionuclides.

Comment. One commenter noted that there is no precedent for exempt quantities in NRC regulations and that this will create a new category. The commenter questioned the logic of creating such a category.

Response. The DOT transportation safety regulations for radioactive materials have always had a de facto "exemption value" built into the definition of "radioactive material." NRC regulations either replicate or include references to DOT regulations. Any material with an activity below the 70-Bq/g (0.002-μCi/g) threshold was not defined as radioactive for the purposes of the regulations and therefore was not subject to the regulations (*i.e.*, exempt). Without the exempt activity for consignments value, any quantity of material that exceeded the exempt activity concentration, no matter how small, would be regulated in transport as radioactive material. The exempt consignment value is included to prevent the regulation of trivial quantities of material as hazardous material in transport.

Comment. One commenter stated that the threat of terrorism should be taken into account when exempting radionuclides from transport regulations and changing container regulations.

Response. The nature of exempt materials is that they are either of very low activity concentration or very low total activity. In both cases, these materials present little hazard and would not be attractive as targets for terrorist activities.

Comment. One commenter expressed concern that the revised exempt concentrations in Table A–2 are a significant change in the requirements for the transportation of unimportant quantities of source materials.

Response. Although the comment expresses concern that the exempt activity concentration values represent a significant change in the requirements for unimportant source material, it does not provide data or justification for this statement. NRC acknowledges that the internationally developed transportation exemption values do not align precisely with preexisting, domestic requirements in NRC regulations in 10 CFR part 30 or part 40 that were developed for other licensing purposes. However, the current 70-Bq/g (0.002-μCi/g) exemption value does not align precisely with part 30 or part 40 requirements either. In most cases, the differences in the regulatory requirements do not appear to be that significant, and the industry has not provided data that demonstrate that the impact from the change for actual shipments would be significant. NRC has no basis to change its conclusion in the final RA that the overall benefits of achieving compatibility by adopting the exemption values outweigh the associated costs, or its belief that permitting natural materials and ores to be shipped at 10 times the Table A–2 values minimizes the impacts.

Comment. Five commenters supported NRC's efforts in the proposed rule. One of these commenters supported lower concentrations for the radioactive isotopes because the proposed rulemaking increases public risk. Another stated that it was important to ensure consistency between international and domestic regulations and that while individual radionuclide levels may be raised or lowered by the proposed rule, overall the estimated dose would be significantly lower. Another commenter agreed with NRC's proposal to adopt the radionuclide exemption values in TS-R–1, particularly the inclusion of exempt consignment quantities in the regulations. Another commenter expressed general support for ensuring consistency between domestic and international regulations.

Response. NRC acknowledges the comments on revising radionuclide exemption values. NRC staff agrees with the commenters who stated that consistency between international and domestic regulations is a high priority, and that the exemption values overall will result in lower public exposure. However, while promulgating lower exemption levels could reduce the already low public health risks, NRC believes that the exemption values offer the best balance between economic and public health concerns.

Comment. One commenter stated that the proposed exemption values were too complex because it is too complicated to maintain more than half of all exemption values at 70 Bq/g (0.002 μCi/g) and to reduce those that are more protective.

One commenter said that there are no comparable exemptions in existing regulations.

Response. The NRC does not believe that the proposal to maintain more than half of the activity concentration exemption values at 70 Bq/g (0.002 μCi/g), while reducing the activity concentration exemption values for the remaining radionuclides, is warranted because the resulting exemption system would be inconsistent, have no defined dose basis, and would be incompatible with that of the IAEA and other Member States.

The final rule introduces exemptions from the application of the hazardous materials transportation regulations for materials in transit. However, the definition of "radioactive materials" in the transportation regulations has, for decades, contained a minimum activity concentration value (*i.e.*, any material with an activity concentration less than 70 Bq/g (0.002 μCi/g)); effectively, the definition has contained an exemption value. The final rule changes the structure of the exemption from a single activity concentration value applicable to all radionuclides to individual activity concentration and consignment activity values that are specified for each radionuclide.

Comment. Several commenters expressed concern about the health effects of these regulations. One commenter opposed reliance on the ICRP arguing that ICRP does not take into consideration important information on the health impacts of radiation such as synergism with other contaminants in the environment and the bystander effect, in which cells that are near cells that are hit, but are not

themselves hit by ionizing radiation, exhibit effects of the exposure. One commenter stated that the NRC did not consider the new evidence that low doses of radiation are more harmful per unit dose than was previously known. This commenter further noted that there are synergistic effects and other types of uncertainties in radiation health effects. Three commenters opposed the radionuclide exemption value tables citing the use of outdated data, lack of data, and/or the lack of calculations for more than 350 radionuclides. One commenter stated that NRC radiation standards are outdated and should be subject to rigorous review, including independent outside experts. One commenter stated that ICRP does not represent the full spectrum of scientific opinion on radiation and health and does not take into account certain health impacts of radiation. One commenter noted that ICRP and IAEA risk models only look at fatal cancers and ignore nonfatal cancers, years of lost life, and the bystander effect. The commenter also asserted that these agencies' reports do not accurately reflect risk and that low levels of radiation are more damaging than the models are predicting.

Response. The Board of Governors of the International Atomic Energy Agency stated in 1960, that "The Agency's basic safety standards * * * will be based, to the extent possible, on the recommendations of the International Commission on Radiological Protection (ICRP)." The ICRP is a nongovernmental scientific organization founded in 1928 to establish basic principles and recommendations for radiation protection; the most recent recommendations of the ICRP were issued in 1991 (International Commission on Radiological Protection, 1990 Recommendations of the International Commission on Radiological Protection, Publication No. 60, Pergamon Press, Oxford and New York (1991)). The IAEA Basic Safety Standards (from which the exemption values are taken) were developed with full IAEA Member State participation (including the U.S.) and have taken the ICRP recommendations into account. NRC rejects the comment that the data used to develop the exemption values are outdated or inadequate. In general, NRC believes ICRP reports provide a widely held consensus view by international scientific authorities on radiation dose responses and accepts their principal conclusions. Furthermore, the NRC notes that fundamental research into radiation dose effects is beyond the scope of this rulemaking. For that information, NRC relies on national and international scientific authorities.

Comment. The NRC was criticized by commenters for not having developed and pursued actual transport exposure scenarios for every radionuclide to justify the exemptions. One commenter also noted that although NRC has not carried out calculations for transportation scenarios for over 350 of the listed radionuclides, individual exempt concentration and quantity values have been assigned to each radionuclide. The commenter further concluded that NRC has technical data to support the conclusion that these exemption values will pose no risk to the public. Another commenter stated that it was unclear why NRC performed calculations for only 20 of the 350 isotopes. The commenter noted that because NRC only modeled 20 of the radionuclides, NRC has not collected complete data for the other radionuclides; otherwise, they would have been also modeled. The commenter further stated that NRC should either lower the exemption values or withdraw the values and perform further studies.

Response. NRC selected a subset of 20 radionuclides believed to be representative of the most commonly transported radionuclides. Exempt activity concentration and consignment activity values were calculated for all the radionuclides listed in Table A–2, not just the 20 selected to be used in NRC's impact analysis. NRC used the 20 radionuclides to illustrate that the impact from activity concentration exemption values for materials commonly transported in significant quantities is less than that from the current single exemption value.

Comment. One commenter expressed concern that NRC had arbitrarily determined the radionuclide values.

Response. The A_1 and A_2 values in Table A–1 and the exempt activity concentration values and exempt activity values in Table A–2 are not arbitrary values. The derivation of these values is dose based and provided in the references in TS–R–1.

Comment. One commenter expressed opposition to the exemption values because they raised the allowable exempt concentrations and allowed for exempt quantities, which are currently not permitted.

Response. The current definition of radioactive material is specified only in terms of a minimum activity concentration. Conceivably, this leads to the regulation of any quantity of material that exceeds that activity concentration, even minute quantities, as a radioactive material in transport. To address this issue, an activity limit for exempt consignments has been introduced that specifies a minimum activity that must be exceeded for a material to be regulated as a radioactive material in transport.

As with the exempt activity concentration values, the exempt activity values in Table A–2 were taken from the BSS exemption values. The doses associated with the use of these exempt activity values were estimated using the same scenarios used for assessing the impact of the exempt activity concentration values. The results are that doses are low, and that for 19 of the 20 representative radionuclides examined, the dose from the radionuclide exempt activity value is less than that from the exempt activity concentration value.

Comment. One commenter asked if there is any possibility that NRC could simply decline to adopt the sections of the proposed rules that relate to radionuclide exemption values.

Response. NRC's and DOT's approach in this compatibility rulemaking is to adopt the provisions of IAEA's TS–R–1 as proposed unless adoption would pose a significant detriment to radioactive material transport commerce, or is unjustified. The NRC has determined that the exemption change is justified based on its regulatory analysis and public comments.

Comment. One commenter stated that NRC should ensure that no member of the public would receive a dose above 1mrem/year from any practice or source, and should clarify what is meant by "practice" and "source." One commenter stated that the current HMR standard of 70 Bq/g (0.002 Ci/g) should be maintained as the minimum standard for the protection of public health and transport worker safety. The commenter opposed the replacement of this standard with the radionuclide-specific values per the IAEA's TS–R–1 for the following reasons:

(1) There is no radiation risk level which is sufficiently low as to be of no regulatory concern;

(2) There are no collective radiological impacts which are sufficiently low as to be of no regulatory concern; and

(3) No one will be able to determine if proposed exempt sources are safe.

One commenter noted that the current and proposed regulations have 50 and 23 millirem being average doses, respectively. To adequately protect public health, the average dose should be no more than one millirem. One commenter stated the assumptions and

scenarios that NRC and DOT used to justify the adoption of these exemption values fail to prove that these exemptions will have either no or an insignificant effect.

One commenter stated that the proposed exemption values are based on unrealistic models. The commenter said that the exempt levels do not appear to reflect the material's longevity in the environment and hazard to living creatures. One commenter stated that the standards should be based on the most vulnerable members of the population, and NRC should adopt stricter values. Two commenters argued that, using the existing dose models, some of the exempt quantities could lead to high public doses from unregulated amounts of exempt quantities of radioisotopes. Another commenter opposed reliance on computer model scenarios that may not be realistic to project doses, citing that this lack of realism to justify certain exposure scenarios is inadequate. One commenter stated that it is unclear in the proposed regulations what the exact dose impact will be in converting from an empirical exemption value to a dose-based exemption value. The commenter's understanding is that while there is a reduction in dose for the results that were calculated, the standard deviation and median dose values both decrease. One commenter was concerned that the proposed exemption values are not adequately protective for transportation scenarios, because the IAEA transportation exemption values for some radionuclides are too high to meet safety goals. The commenter added that the average annual dose for a representative list of 20 radionuclides (*see* April 30, 2002; 67 FR 21396) is too high to be safe. Some commenters stated that NRC should tighten controls on radioactive materials instead of loosening them because NRC admitted that the proposed increases in exempt concentrations of radioactive materials would reduce public safety, One commenter stated that the public is told not to worry about the proposed exemption values because it will only be exposed to one millirem of radioactive material. However, the commenter noted that the 20 most commonly shipped materials with the new exemption values are at 23 millirem. Therefore, the commenter was confused about what it meant to only be exposed to one millirem of radioactive material. One commenter stated that the proposed exemption values would not enforce the principle of limiting exposure to less than 1 mrem/yr. Four other commenters opposed the proposed definition of "radioactive materials," one doing so in the name of national security. This commenter argued that there are no low-level nuclear wastes and that there is no safe threshold for exposure to radioactive materials.

Response. The terms "practice" and "source" are used in the context of the IAEA's BSS, and have the meanings provided in the glossary of that document.

A criterion for the BSS exemption of practices "without further consideration" (Schedule I, paragraph I–3) is that the effective dose expected to be incurred by any member of the public due to the exempted practice is of the order of 0.01 mSv (1 mrem) or less in a year. Estimates of doses resulting from the use of the exemption values in the transport scenarios have been specifically examined and may result in doses that exceed 0.01 mSv/yr (1 mrem/yr) (an average of 0.23 mSv/yr (23 mrem/yr) for 20 commonly transported radionuclides). However, the dose estimates for the use of the exempt activity concentration values are less than those resulting from the use of the current 70-Bq/g (0.002-μCi/g) activity concentration (an average of 0.5 mSv/yr (50 millirem/yr) for the same 20 radionuclides). The NRC staff notes that there have been no adverse public health impacts identified from the use of the current exemption value. Because the annual doses estimated to result from the use of the radionuclide-specific exemption values are low, and on average are lower than the dose estimates for the current 70-Bq/g (0.002-μCi/g) activity concentration, the NRC staff believes that changing from the 70-Bq/g (0.002-μCi/g) value to the radionuclide-specific exemption values will result in no adverse impact on public health and safety.

In addition, the transport scenarios are based on exposure periods (40–500 hours per year) and exposure distances (less than 1.52 m (5 ft)) that overstate actual exposures to workers and greatly overstate actual exposures to the public. The models used to develop the exemption values consider the exposure pathways that are significant for assessment of impact on public health and safety, including external exposure, inhalation and ingestion, and contamination of the skin.

The length of the exposure periods and the close distance assumptions make multiple exposures for the full duration at those distances to multiple radionuclides very unlikely. The dose estimates are sufficiently low that NRC believes any actual multiple exposures would also be acceptably low (well below regulatory limits). Neither NRC nor DOT has any information to suggest that multiple exposures to materials regulated under the current 70-Bq/g (0.002-μCi/g) minimum activity concentration is of concern.

The NRC believes that regulatory efficiency requires that exemption values be established for determining when material in transport should be subject to radioactive material transport safety regulations. The NRC believes adoption of the radionuclide-specific exemption values is warranted because it achieves international compatibility without negative public health impact or undue burden.

Comment. One commenter stated that the proposed regulations were unclear as to the exact definition of "per radionuclide."

Response. The term "per radionuclide" means that the doses estimated to result from the use of the exemption values were determined for each radionuclide.

Comment. One commenter expressed the lack of understanding of the concept of the "millirem." To this end, the commenter said that "millirem" is a fluid, unenforceable, and unverifiable term.

Response. The term "millirem" is a combination of the prefix "milli," meaning one-thousandth, and "rem," an acronym for Roentgen Equivalent Man, a radiation dosimetry unit. Units of radiation doses, including rem, are defined in § 20.1004.

Comment. One commenter requested that NRC track, label, and publicly report all radioactive shipments of any kind, and reject the exemption tables. The commenter believed that "harmonization" was not an adequate justification for increasing public risk.

Response. The NRC believes that the current regulations require appropriate measures for hazard communication during transportation. As noted previously, the public risk from the transportation of exempt materials, as measured by the average dose, will actually decrease.

Comment. One commenter stated that the new exemption values will result in bulk shipments of decommissioning soil and debris being classed as LSA (Low Specific Activity) rather than being exempted from regulation. The commenter quantified the percentage of his shipments that would now be classed as LSA. The commenter stated that the increase in LSA-classified shipments will result in minimal additional costs.

Response. No response is required.

Comment. One commenter expressed opposition to the changes in definitions that could include changing exemption values, particularly because this is not subject to an EA.

Response. This rule adopts the TS–R–1 exempt material activity concentrations and exempt consignment activity limits as found in Table A–2 of the proposed rule. In essence, use of both of these values will replace the current definition for "radioactive material" found in 49 CFR 173.403, and applied in current 10 CFR 71.10. Within the revision to part 71, reference to the exemption values will be added to the new § 71.14, "Exemption for low-level materials," to provide an exemption from NRC requirements during the transportation of these materials. Estimated impacts from this revision are included in the EA prepared to support this rulemaking.

Comment. One commenter stated that the redefinition would pose a threat to national security.

Response. NRC does not believe adoption of the exemption values for radioactive materials in transport will have any bearing on national security.

Comment. One commenter expressed concern that the NRC proposed regulations could increase the variety of materials that are regulated as "radioactive" for transportation purposes.

Response. It is possible that materials that were not regulated under the previous DOT definition based on 70 Bq/g (0.002-μCi/g) would be newly regulated under the exemption values. However, a material consignment must exceed both the activity concentration for exempt material and the activity limit for exempt consignment to be regulated under the final DOT and NRC regulations. It is NRC's position that regulation of such material consignments as radioactive material in transport is appropriate.

Comment. One commenter asked the NRC to explain how NRC's official proposal on the changes in packaging and transporting of radioactive materials would affect industrial radiography.

Response. The final rule does not affect the transportation of standard industrial radiography devices.

Comment. One commenter stated that in "no case should NRC part 71 definitions be relaxed or downgraded merely to provide "internal consistency and compatibility with TS–R–1."' The commenter stated that those who "wish to engage in trans-boundary trade in nuclear materials can be required to meet stiffer U.S. import requirements" than those elsewhere in the world. The existing NRC staff justification is "a very lame dog that won't hunt," and regulatory relaxation is "both arbitrary and capricious and unacceptable." The commenter stated that NRC should have definitions with full clarity, and no changes should be allowed that reduce safety levels or relax requirements. The commenter was especially troubled with the proposed change to "radioactive material" because this change would "allow shipments of radioactively contaminated materials that are declared to be exempted according to the concentrations and consignment limits shown in the Exemption Tables."

Response. NRC believes that the amended definitions and new adoptions to support definitions for individual Issues are sufficiently justified and not arbitrary and capricious.

Issue 3. Revision of A^1 and A^2

Summary of NRC Final Rule. The final rule adopts, in Appendix A, Table A–1 of part 71, the new A_1 and A_2 values from TS–R–1, except for molybdenum-99 and californium-252. The final rule does not include A_1 and A_2 values for the 16 radionuclides that were previously listed in part 71 but which do not appear in TS–R–1.

The A_1 and A_2 values were revised by IAEA based on refined modeling of possible doses from radionuclides. The NRC believes that these changes are based on sound science, incorporating the latest in dosimetric modeling and that the changes improve the transportation regulations. The regulatory analysis indicates that adopting these values is appropriate from a safety, regulatory, and cost perspective. Further, adoption of the new A_1 and A_2 values will be an overall benefit to public and worker health and international commerce by ensuring that the A_1 and A_2 values are consistent within and between international and domestic transportation regulations. The NRC is not adopting the A_1 value for californium-252 because the IAEA is considering changing the value that appears in TS–R–1 back to what presently appears in part 71. The NRC is not adopting the A_2 value for molybdenum-99 for domestic commerce because this would result in a significant increase in the number of packages shipped, and therefore in potential occupational doses, due to the lower A_2 value in TS–R–1.

Affected Sections. Appendix A.

Background. The international and domestic transportation regulations use established activity values to specify the amount of radioactive material that is permitted to be transported in a particular packaging and for other purposes. These values, known as the A_1 and A_2 values, indicate the maximum activity that is permitted to be transported in a Type A package. The A_1 values apply to special form radioactive material, and the A_2 values apply to normal form radioactive material. *See* § 71.4 for definitions.

In the case of a Type A package, the A_1 and A_2 values as stated in the regulations apply as package content limits. Additionally, fractions of these values can be used (*e.g.*, 1×10^{-3} A_2 for a limited quantity of solid radioactive material in normal form), or multiples of these values (*e.g.*, 3,000 A_2 to establish a highway route controlled quantity threshold value).

Based on the results from an updated Q-system (*see* draft Advisory Material for the Regulations for the Safe Transport of Radioactive Material, TS–G–1.1, Appendix I), the IAEA adopted new A_1 and A_2 values for radionuclides listed in TS–R–1 (*see* paragraph 201 and Table I). IAEA adopted these new values based on calculations which were performed using the latest dosimetric models recommended by the ICRP in Publication 60, "1990 Recommendations of the ICRP." A thorough review of the Q-system also included incorporation of data from updated metabolic uptake studies. In addition, several refinements were introduced in the calculation of contributions to the effective dose from each of the pathways considered. The pathways themselves are the same ones considered in the 1985 version of the Q-system: External photon dose, external beta dose, inhalation dose, skin and ingestion dose from contamination, and dose from submersion in gaseous radionuclides. A thorough, up-to-date radiological assessment was performed for each radionuclide of potential exposures to an individual should a Type A package of radioactive material be involved in an accident during transport. The new A_1 and A_2 values reflect that assessment.

While the dosimetric models and dose pathways within the Q-system were thoroughly reviewed and updated, the reference doses were unchanged. The reference doses are the dose values which are used to define a "not unacceptable" dose in the event of an accident. Consequently, while some revised A_1 and A_2 values are higher and some are lower, the potential dose following an accident is the same as with the previous A_1 and A_2 values. The general A value radiological criteria are: effective or committed effective dose to a person should not exceed 50 mSv (5 rem); the dose or committed dose received by individual organs should not exceed 0.5 Sv (50 rem) (*see* IAEA

TS–G–1.1 for further details on Q-system dosimetric models and assumptions). Changes in the A values do not change the reference dose values. The revised dosimetric models are used internationally to calculate doses from individual radionuclides, and these refinements in the pathway calculations resulted in various changes to the A_1 and A_2 values. In other words, where an A_1 or A_2 value has increased, the potential dose is still the same—the use of the revised dosimetric models just shows that a higher activity of that radionuclide is actually required to produce the same reference dose. Conversely, where an A_1 or A_2 value has decreased, the revised models show that less activity of that nuclide is needed to produce the reference dose.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter stated that the NRC should not reduce the numbers and types of material subject to shipping regulations. The commenter was concerned that the proposed rule would:

(1) Exempt numerous radionuclide shipments from any regulation;

(2) Increase worker exposure and the difficulty of enforcement;

(3) Create an inconsistency with other Federal radionuclide standards; and

(4) Otherwise reduce the protections afforded the public during radionuclide transportation.

Another commenter stated that the revisions' rationale does not justify such weakening, that inconsistency with IAEA standards is an inadequate justification for the proposed changes because there has been no demonstration that inconsistencies have caused any difficulty.

Finally, one commenter stated that increasing the A_1 and A_2 values should not be allowed and added that conforming with IAEA regulations is an insufficient justification to increase "levels of exposure to American citizens." Further, the commenter stated that avoiding "negative impacts on the nuclear industry are not justifiable reasons for NRC to relax any standards for protection of the public."

Response. The NRC disagrees with the first commenter. The final rule does not exempt numerous radionuclide shipments, nor increase worker exposure, nor reduce protection to the public, nor create an inconsistency with other Federal standards.

The NRC disagrees with the second commenter that the final rule weakens the regulations. Conforming NRC regulations to the IAEA regulations is not the sole justification; it is also adopting sound science, incorporating the latest in dosimetric modeling and that the changes improve the transportation regulations. The regulatory analysis indicates that adopting these values is appropriate from a safety, regulatory, and cost perspective.

Comment. One commenter suggested that the NRC organize the A_1 and A_2 tables to be sorted alphabetically by name rather than symbol, because the people who will use these tables most frequently will be more familiar with the spelling of the name rather than the chemical symbol. In addition, using the full name will make the tables easier to use and will be more consistent with the June 1, 1998, Presidential memo, "Plain Language in Government Writing."

Response. The comment is acknowledged; however, the tables will remain sorted as proposed to maintain consistency with the current DOT and IAEA regulations.

Comment. One commenter stated that the dose to workers could increase due to their need to handle more packages. The commenter also stated that the demand for molybdenum-99, the principal isotope used in medical imaging, would likely increase with the aging population.

Response. The proposed A_1 and A_2 values should result in only a minimal change in occupational risk. The proposed A_1 and A_2 values are based on the same reference doses as the current values, and only the dosimetric models were revised, leading to the updated values. In general, the proposed A_1 and A_2 values are within a factor of about three of the current values; very few radionuclides have proposed A_1 and A_2 values that are outside this range.

Currently in part 71, the A_2 value for Mo-99 is 0.5 TBq (13.5 Ci) for international transport and 0.74 TBq (20 Ci) for domestic transport. The NRC originally proposed an A_2 value of 0.6 TBq (16.2 Ci) for Mo-99, but commenters suggested that adopting the lower A_2 value for domestic use would only result in an increase in the number of packages shipped and, thus, in a potential increase in occupational dose. Therefore, NRC will retain the current Mo-99 A_2 value of 0.74 TBq (20 Ci) for domestic shipments.

Comment. One commenter indicated that the proposed A_1 and A_2 values were "far reaching." The commenter was concerned by the lack of data supporting these significant changes but generally supported the changes.

Response. NRC does not believe that the proposed changes to the A_1 and A_2 values are "far reaching." NRC does not believe there is a lack of data on the proposed changes to the A_1 and A_2 values. Instead, the information on the Q-system, the details of the exposure pathways, and the actual IAEA A_1 and A_2 values are contained in the guidance document for TS–R–1, TS–G 1.1, and Safety Series 7.

The revisions of the A_1 and A_2 values are based on a reexamination/new assessment of the dosimetric models used in deriving the content limits for Type A packages. The overall impact of the reexamination resulted in improved methods for the evaluation of the content limits for special form (denoted by A_1) and nonspecial form (denoted by A_2) radioactive material. Internationally, as increased knowledge and scientific methods are gained and applied in the areas of health physics, radioactive material packaging, and radioactive material transportation, it is appropriate to take advantage of that knowledge and information and apply it to the IAEA regulations. This has occurred with the revision of the A_1 and A_2 values. The IAEA applied the newly-revised Q-system to the same uptake scenarios it used for the 1985 regulations. Thus, the same dose criteria, which were used in the assessment of the 1985 A_1 and A_2 values, were also used to determine the new A_1 and A_2 values in TS–R–1.

While some of the A_1 and A_2 values have increased, some values remain unchanged, and some values decreased, the overall safety implications for TS–R–1 remain the same as those used in the 1985 IAEA regulations.

Within the Q-system, a series of exposure routes are considered which may result in radiation exposure to persons near a Type A package of radioactive material that has been involved in an accident. The exposure routes include external photon dose, external beta dose, inhalation dose, skin and ingestion dose due to contamination transfer, and submersion (exposure to vapor/gas) dose.

Comment. One commenter requested more explanation of the implications of revision of the A_1 and A_2 values. The commenter requested simple summaries for both special form and normal materials.

Response. See response to the preceding comment. Special form radioactive material and normal form radioactive material are defined in § 71.4. In general, special form radioactive material is subjected to various tests found in § 71.75, "Qualification of special form radioactive material." These materials

are known to be nondispersible (will not disperse contamination). Thus, in a transportation scenario, special form radioactive material could be considered relatively safer in transport by the fact that it poses only a direct radiation hazard (and not a contamination hazard). On the other hand, radioactive material that has not been tested to the requirements of § 71.75 or has not passed these tests has not qualified to be considered special form radioactive material. Such material is called nonspecial form (commonly known as normal form) radioactive material. In general, these materials pose both a radiation and contamination hazard in that they are considered to be dispersible. As an example, consider the A_1 and A_2 values for actinium-227 (A_1 = 9E–1 TBq (2.4E1 Ci); A_2 = 9E–5 TBq (2.4E–3 Ci)). Notice the tremendous difference between A_1 and A_2. This example demonstrates that in special form, a much larger amount of activity can be placed in a Type A package because the special form material has been sealed or encapsulated and has proven its robustness by passing the test requirements of § 71.75. The same encapsulation and testing is not true for the nonspecial form (A_2) value. This is where the applicability of health physics and metabolic uptake come into consideration for determining the A_1 and A_2 values for each individual radionuclide.

Comment. One commenter asked if the justification for the change is the shift in accepted dose models from ICRP 26 and 30 to 60 and 66. The commenter requested data supporting the shift in dose models.

Response. The most recent recommendations of the ICRP were issued in 1991 (1990 Recommendation of the International Commission on Radiological Protection, Publication No. 60, Pergamon Press, 1991). Within TS–R–1, IAEA applied the values from ICRP 60 and 66, thus the shift in dose models. This data can be found in the ICRP 60 and 66 documents.

Comment. One commenter noted that ICRP and IAEA risk models only look at fatal cancers and ignore nonfatal cancers, years of lost life, and the bystander effect. The commenter asserted that the ICRP and IAEA reports do not accurately reflect risk and that low levels of radiation are more damaging than the models are predicting.

Response. The NRC acknowledges this comment but notes that a response to similar concerns expressed is provided in the first comment of section II—Analysis of Public Comments, under the heading: Adequacy of NRC Regulations and Rulemaking Process.

Comment. One commenter asked if these revisions would actually expand the number of containers that have to meet test standards.

Response. Within part 71, NRC approves packages and shipping procedures for fissile radioactive materials and for licensed materials in quantities that exceed A_1 or A_2. NRC will continue to apply the regulations in part 71 to Type B and fissile radioactive material packages. NRC is not aware of an expansion of the container inventory which will have to meet test standards due to an increase in any individual A_1 or A_2 value.

Comment. One commenter said that the scientific basis for the changes to the A_1 and A_2 values is understood and justified. However, the commenter urged NRC to maintain the exception (found in Table A–1 of Appendix A to part 71) to allow the domestic A_2 limit of 20 Ci for Mo-99, which, the commenter states, is necessary to allow domestic manufacturers to continue to provide Mo-99 generators to the diagnostic nuclear medicine community. The commenter said that changing the A_2 limit to the TS–R–1 value would result in an increase in the number of packages shipped and, thus, an increase in the doses received by manufacturers, carriers, and end users.

Response. NRC agrees with this commenter concerning the revision to the A_1 and A_2 values and the scientific background used to support the changes. Further, the commenter has indicated that the TS–R–1 A_2 value for molybdenum-99 would increase the number of packages shipped and, thus, an increase the radiation exposure to various workers. Accordingly, to reduce these concerns NRC will retain the current A_2 value for molybdenum-99 (7.4E–1 TBq; 2.0E1 Ci) as stated in the proposed rule and as found in Table A–1 for domestic transport. NRC is aware that by adopting this value (as opposed to the current value for molybdenum-99 in TS–R–1), the number of shipments of molybdenum-99 and the associated radiation exposure may be reduced.

Comment. One commenter indicated that revising the A_1 and A_2 values might have an adverse impact on currently certified casks. The commenter stated that the proposed regulation does not ensure that transport casks certified under previous revisions will still be usable without modification or analysis in the future.

Response. Although NRC staff could revise cask certificates if necessary, no changes are known to be needed to accommodate the revised A_1 and A_2 values.

Comment. One commenter stated that because DOE is the principal shipper of californium-252 under the current exemption value, the potential impacts to industry could not be assessed.

Response. NRC is aware of the limited and safe transportation of californium-252 by DOE.

Comment. One commenter stated that by omitting the A_1 and A_2 values for 16 radionuclides, the Commission would have to set these values upon future request of a licensee. The commenter recommended that the NRC not delete these values from part 71, Appendix A, to save NRC the cost and resources necessary to establish these values in the future.

Response. NRC agrees that more time and effort may be needed to reintroduce these 16 radionuclides into Appendix A at some time in the future, as compared to retaining their names and symbols but not publishing actual A_1 and A_2 values for them. Instead, the reference to the general values for A_1 and A_2 provided in Table A–3 would be used without NRC approval for shipping these radionuclides. Further, to maintain consistency/harmonization with future IAEA transport standards, NRC may adopt a revised list of A_1 and A_2 values, should there be revisions to Table 1 in future editions of the IAEA transport standards.

Comment. Four commenters agreed with NRC's efforts to revise A_1 and A_2 values.

Response. The NRC acknowledges these comments.

Comment. Several commenters disagreed with the NRC staff's position. One commenter opposed weakening the present standard of radiation protection during transportation, particularly because NRC is proposing to ship radioactive wastes to a repository. Another commenter expressed concern that many, if not most, of the A_1 and A_2 values, both current and proposed in the NRC's part 71 regulations, appear to have been arbitrarily chosen and are unsafe. Another commenter stated that any additional costs "must be borne by licensees and beneficiaries of use of materials." Another commenter asked the NRC not to adopt the exemption values contained in Table 2 of TS–R–1.

Response. NRC does not consider the adoption of the A_1 and A_2 values from TS–R–1 to be a weakening of the present standards for packaging and transporting radioactive material. The NRC believes the revision of the A_1 and A_2 values to be based on sound science and that it provides adequate protection to the public and workers. Furthermore,

there is not a direct connection between adopting the revised A_1 and A_2 values into part 71 and the package standards and safety requirements which will be imposed on the transport packages for high-level waste en route to a geologic repository.

The process used to determine the appropriate A_1 and A_2 value assigned to each radionuclide is based on several factors. These include the type of radiation emitted by the radionuclide *e.g.*, alpha, beta, or gamma), the energy of that radiation *i.e.*, strong alpha emitter, strong gamma emitter, weak beta emitter, etc.), and the form of the material (nondispersible as applied to special form radioactive material, or dispersible as applied to nonspecial form radioactive material). All of these factors have been modeled in the IAEA's Q-system to determine the appropriate value to be assigned to each radionuclide. Thus, the values have not been arbitrarily obtained, and they are safe. Further, the revision to the A_1 and A_2 values in TS–R–1 has maintained the same level of safety as was applied in determining the A_1 and A_2 values for the radionuclides in the 1985 IAEA transportation standards. Thus, there is no weakening of the intended safety aspects of the new A_1 and A_2 values.

Comment. Several commenters noted various typographical errors. The first commenter noted that Footnote 2 to Table A–1 is incorrect and should instead read, "See Table A–4." The second commenter noted an error in the proposed Table A–1 for the A_2 (Ci) value for Pu-239, suggesting that the correct value should be 2.7×10^{-2} Ci, as evidenced from the A_2 (TBq) value for Pu-239 and the similar Table 1 in the IAEA TS–R–1 regulations and Table 10A in the proposed DOT regulations.

Response. NRC acknowledges the comment, and corrections have been made to the final rule.

Comment. One commenter addressed changing a number of the radionuclide values. The commenter suggested that the radionuclide Al–26 value for specific activity in 10 CFR part 71, Table A–1, should be changed from 190 Ci/g to 0.019 Ci/g. The A_1 and A_2 values in both 10 CFR part 71 Table A–1 and 49 CFR 173.435 for Ar-39 appear reversed from that listed in IAEA TS–R–1. The radionuclide Be-10 value for specific activity in 10 CFR part 71 Table A–1 should be changed from 220 Ci/g to 0.022 Ci/g. The radionuclide Cs-136 value for specific activity in 49 CFR 173.435 should be changed from 0.0027 TBq/g to 270 TBq/g. The radionuclide Dy-165 value for A_2 (Ci) in 10 CFR part 71 Table A–1 should be changed from 0.16 to 16 Ci. The radionuclide Eu-150 (long-lived) value for A_1 (TBq) in 10 CFR part 71 Table A–1 and 49 CFR 173.435 is not consistent with the IAEA TS–R–1 value of 0.7. The radionuclide Fe-59 value for A_2 (TBq) in 10 CFR part 71 Table A–1 is in error. The radionuclide Ho-166m value for A_2 (TBq) in 10 CFR part 71 Table A–1 should be 0.5. The radionuclide K–43 value for A_2 (TBq) in 10 CFR part 71 Table A–1 should be 0.6. The radionuclide Kr-81 value for A_1 (TBq) in 49 CFR 173.435 should be 40, A_1 (Ci) in 49 CFR 173.435 should be 1100. The radionuclide Kr-85 value for A_2 (TBq) in 49 CFR 173.435 should be 10; A_2 (Ci) in 49 CFR 173.435 should be 270. The radionuclide La-140 value for A_2 (Ci) in 49 CFR 173.435 should be 11. The radionuclide Lu-177 value for A_2 (TBq) in 49 CFR 173.435 should be 0.7; A_2 (Ci) in 49 CFR 173.435 should be 19. The radionuclide Mn-52 value for specific activity (Ci) in 49 CFR 173.435 should be 4.4E+05. The radionuclide Np-236 (long-lived) value for A_1 (TBq) in IAEA TS–R–1 is 9; A_2 (TBq) in IAEA TS–R–1 is 0.02, different from the values in both 49 CFR 173.435 and 10 CFR part 71, Table A–1. The radionuclide Pt-197m value for A_2 (TBq) in 49 CFR 173.435 should be 0.6; A_2 (Ci) in 49 CFR 173.435 should be 16. The radionuclide Pu-239 value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 0.027. The radionuclide Pu-240 value for specific activity (Ci) should be 0.23 Ci/g. The radionuclide Ra-225 value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 0.11. The radionuclide Ra-228 value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.02. The radionuclide Rh-105 value for A_2 (Ci) in 10 CFR part 71, Table A–1, is in error. The radionuclide Sc-46 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.5. The radionuclide Sn-119m value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 30. The radionuclide Sn-126 value for specific activity (TBq) in 10 CFR part 71, Table A–1, should be 0.001. The radionuclide H–3 value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 40. The radionuclide Ta-179 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 30. The radionuclide Tb-157 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 40; value for specific activity (TBq) in 10 CFR part 71, Table A–1, should be 0.56 TBq/g. The radionuclide Tb-158 value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 27; value for specific activity (TBq) in 10 CFR part 71, Table A–1, should be 0.56 TBq/g.

The radionuclide Tb-160 value for A_1 (Ci) in 10 CFR part 71, Table A–1, should be 27. The radionuclide Tc-96 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.4. The radionuclide Tb-96m value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.4; value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.4. The radionuclide Tc-97 value for specific activity (TBq) in 10 CFR part 71, Table A–1, should be 5.2E–05; value for specific activity in 10 CFR part 71, Table A–1, should be 0.0014. The radionuclide Te-125m value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 24. The radionuclide Te-129 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.7; value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.6. The radionuclide Te-132 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.5. The radionuclide Th-227 value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 0.14. The radionuclide Th-231 value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.02. The radionuclide Th-234 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.3. The radionuclide Ti-44 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.5; value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.4, value for A_2 (Ci) in 10 CFR part 71, Table A–1, should be 10. The radionuclide Tl-200 value for A_1 (TBq) in 10 CFR part 71, Table A–1, should be 0.9. The radionuclide Tl-204 value for A_2 (TBq) in 10 CFR part 71, Table A–1, should be 0.7. The radionuclide U–230, U–232, U–233, and U–234 values for medium and slow lung absorption, and U–236 values for slow lung absorption are not consistent with IAEA TS–R–1. The comment points out that the Table values published in the **Federal Register** for the proposed rule did not match TS–R–1.

Response. NRC accepts the comment and has updated the values in the final rule, Table A–1, to be consistent with TS–R–1. Appropriate changes have been made in the final rule.

Comment. Three commenters stated that the A_2 value for molybdenum-99 and the A_1 and A_2 values for californium-252 should be retained for domestic use only packages.

Response. NRC agrees with the comment. (*See* 67 FR 21399; April 30, 2002, for more details.)

Issue 4. Uranium Hexafluoride (UF_6) Package Requirements

Summary of NRC Final Rule. The final rule provides, in new § 71.55(g), a specific exception for certain uranium hexafluoride (UF_6) packages from the requirements of § 71.55(b). The exception allows UF_6 packages to be evaluated for criticality safety without considering the in leakage of water into

the containment system provided certain conditions are met, including that the uranium is enriched to not more than 5 weight percent uranium-235. The rule makes part 71 compatible with TS–R–1, paragraph 677(b). Other uranium hexafluoride package requirements in TS–R–1 (paragraphs 629, 630 and 631) do not necessitate changes for compatibility because NRC uses analogous national standards and addresses package design requirements in its design review process.

The specific exception being placed into the regulations for the criticality safety evaluation of certain uranium hexaflouride packages does not alter present practice which has allowed the same type of evaluation under other more general regulatory provisions. NRC has decided to provide this specific exception: (1) To be consistent with the worldwide practice and limits established in national and international standards (ANSI N14.1 and IS 7195) and current U.S. regulations (49 CFR 173.417(b)(5)); (2) because of the history of safe shipment; and (3) because of the essential need to transport the commodity.

Affected Sections. Section 71.55.

Background. Requirements for UF_6 packaging and transportation are found in both NRC and DOT regulations. The DOT regulations contain requirements that govern many aspects of UF_6 packaging and shipment preparation, including a requirement that the UF_6 material be packaged in cylinders that meet the ANSI N14.1 standard. NRC regulations address fissile materials and Type B packaging designs for all materials.

TS–R–1 contains detailed requirements for UF_6 packages designed for transport of more than 0.1 kilogram (kg) UF_6. First, TS–R–1 requires the use of the International Organization for Standardization (ISO) 7195, "Packaging of Uranium Hexafluoride for Transport." Second, TS–R–1 requires that all packages containing more than 0.1 kg UF_6 must meet the "normal conditions of transport" drop test, a minimum internal pressure test, and the hypothetical accident condition thermal test (para 630). However, TS–R–1 does allow a competent national authority to waive certain design requirements, including the thermal test for packages designed to contain greater than 9,000 kg UF_6, provided that multilateral approval is obtained. Third, TS–R–1 prohibits UF_6 packages from using pressure relief devices (para 631). Fourth, TS–R–1 includes a new exception for UF_6 packages regarding the evaluation of criticality safety of a single package. This new exception (para 677(b)) allows UF_6 packages to be evaluated for criticality safety without considering the in leakage of water into the containment system. Consequently, a single fissile UF_6 package does not have to be subcritical assuming that water leaks into the containment system. This provision only applies when there is no contact between the valve body and the cylinder body under accident tests, and the valve remains leak-tight, and when there are quality controls in the manufacture, maintenance, and repair of packages coupled with tests to demonstrate closure of each package before each shipment.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC responses for this issue follows:

Comment. Five commenters expressed support for the proposed changes to UF_6 package rules that continue the current practice of moderator exclusion for UF_6. One commenter cited the strong safety record applying these rules as evidence that the practice is adequate. Two commenters objected to the 5 percent enrichment limit provision in proposed § 71.55(g), and a third commenter expressed concern with the enrichment limit. One commenter noted that the safety case for the specific enrichment to use can be a part of the package certification application and, therefore, does not need to be specified by rule. The same commenter further noted that arguments that water in leakage is not a realistic scenario for a UF_6 cylinder regardless of enrichment and that the 5 percent limit, if imposed for transportation, could have very high cost implications in light of pending decisions to use higher enrichments in the fuel cycle. One commenter suggested that the rule retain the limit of 5 percent for the existing ANSI N14.1 Model 30B cylinder, but that the rule also contain provisions that permit greater than 5 percent enrichments in an "improved UF_6 package with special design features" to accommodate future industry plans.

Response. The NRC's decision to exempt uranium hexafluoride cylinders from § 71.55(b) with a limiting condition of 5 weight percent enriched uranium was made based on:

(1) Consistency with the worldwide practice and limits established in national and international standards (ANSI N14.1 and IS 7195) and current U.S. regulations (49 CFR 173.417(b)(5));

(2) The history of safe shipment; and

(3) The essential need to transport the commodity.

The NRC staff believes that further expansion of the practice of authorizing shipment of materials in packages that do not meet § 71.55(b), without a strong technical safety basis and without full understanding of the potential reduction in safety margins, is not prudent or necessary at this time. In addition, provisions are available to request approval of alternative package designs that could be used for the shipment of uranium hexafluoride with uranium enrichments greater than 5 weight percent under the provisions of § 71.55(b) or § 71.55(c). Merits of a new or modified design that included special design features could be reviewed and approved under the provisions of § 71.55, including § 71.55(c).

Because package certification is directly tied to the regulations, any assessment of the safety of enrichments greater than 5 weight percent uranium-235, considering the potential or probability of water in leakage, would not be part of the safety case of an application if the enrichment limit is not included as part of the regulation.

Although it is correct that the water in leakage scenario is not changed for enrichments less than or greater than 5 weight percent, it is not clear that the safety margins against accidental nuclear criticality for all enrichments would be the same if water were introduced into the containment vessel accidentally. Because these margins are undefined at this time, it does not seem prudent or necessary to modify the regulatory standard that was based on worldwide practice in existence today. Future changes in the fuel cycle that could necessitate transport of enrichments greater than 5 weight percent uranium-235 could result in new packages designed to meet the normal fissile material package standards in § 71.55(b), as are required for other commodities, or could include special design features that would enhance nuclear criticality safety for transport for approval under the provisions of § 71.55(c). Alternatively, a safety assessment could be developed for possible transport of enrichments greater than 5 weight percent to support some future rulemaking to modify § 71.55(g) to increase the enrichment limitation.

For the previously mentioned reasons, the NRC staff has retained the 5 percent enrichment limit in the final rule.

Comment. One commenter stated an opinion that all UF_6 packages should have overpacks and noted that the proposed rule should resolve this issue.

Response. The NRC staff does not agree with the position that all UF_6 packages be required by rule to

incorporate an overpack. Design and performance standards for fissile UF_6 packages are stated in part 71, and design and performance standards for nonfissile UF_6 packages appear in DOT regulations. Use of specific design features (*e.g.*, overpacks) to meet regulatory standards is left to designers.

Comment. One commenter expressed concern that NRC had not provided data to back up its proposal to "relax the current packaging requirements" in § 71.55(b) for UF_6. The commenter stated that NRC should not adopt this proposal unless it can provide justification for doing so. The commenter was also concerned that NRC's EA does not address any impacts associated with this proposal.

Response. The NRC staff disagrees with the commenter's assertion that adoption of § 71.55(g) is a relaxation of current packaging requirements in § 71.55(b). As noted by the commenter, NRC's proposed rule (67 FR 21400) explains that the new § 71.55(g) provisions are consistent with existing worldwide practice for UF6 packages. This worldwide practice has been in use since its development in the 1950s, and the functioning of the nuclear fuel cycle in the U.S. relies upon transport of this commodity. The exception was limited to 5 weight percent enriched uranium consistent with the worldwide practice and limits established in national and international standards (ANSI N14.1 and IS 7195) and current U.S. regulations (49 CFR 173.417(b)(5)). The new regulatory text replaces the more general "special features" allowances with a more explicit provision pertaining to certain UF_6 packages.

Comment. Two commenters expressed opposition for the relaxation of testing for radioactive transport containers. One commenter stated that the drop test, minimum internal pressure test, and the hypothetical accident condition test must be accompanied by the thermal test to assure public protection in the event of an accident. One commenter cited both the Baltimore tunnel fire and the Arkansas bridge incident as justifications for not allowing any exemptions.

Response. The NRC staff reviewed these comments and determined that they concern the nonfissile UF_6 packaging issues discussed in Issue 6 in the DOT's proposed rulemaking (April 30, 2002; 67 FR 21337), not the fissile UF_6 package matters in Issue 4 in the related NRC proposed rulemaking. The NRC staff noted that the commenter's letter was jointly addressed to NRC and DOT for resolution in their final rule.

Issue 5. Introduction of the Criticality Safety Index Requirements

Summary of NRC Final Rule. The final rule adopts the TS–R–1 (paragraphs 218 and 530). Paragraph 218 results in NRC incorporating a Criticality Safety Index (CSI) in part 71 that is determined in the same manner as current part 71 "Transport Index for criticality control purposes," but now it must be displayed on shipments of fissile material (paragraphs 544–545) using a new "fissile material" label. NRC's adoption of TS–R–1 (paragraph 530) increases the CSI-per package limit from 10 to 50 for fissile material packages in nonexclusive use shipments. (The previous Transport Index criticality limit was 10.) The TI is determined in the same way as the "TI for radiation control purposes" and continues to be displayed on the traditional "radioactive material" label. The basis for these changes that makes part 71 compatible with TS–R–1 is that NRC believes the differentiation between criticality control and radiation protection would better define the hazards associated with a given package and, therefore, provide better package hazard information to emergency responders. The increase in the per package CSI limit may provide additional flexibility to licensees by permitting the increased use of less expensive, nonexclusive use shipments. However, licensees will still retain the flexibility to ship a larger number of packages of fissile material on an exclusive use conveyance. The adoption of the CSI values would make part 71 consistent with TS–R–1 and, therefore, would enhance regulatory efficiency.

Affected Sections. Sections 71.4, 71.18, 71.20, 71.59.

Background. Historically, the IAEA and U.S. regulations (both NRC and DOT) have used a term known as the Transport Index (TI) to determine appropriate safety requirements during transport. The TI has been used to control the accumulation of packages for both radiological safety and criticality safety purposes and to specify minimum separation distances from persons (radiological safety). The TI has been a single number which is the larger of two values: the "TI for criticality control purposes"; and the "TI for radiation control purposes." Taking the larger of the two values has ensured conservatism in limiting the accumulation of packages in conveyances and in-transit storage areas.

TS–R–1 (paragraph 218) has introduced the concept of a CSI separate from the old TI. As a result, the TI was redefined in TS–R–1. The CSI is determined in the same way as the "TI for criticality control purposes," but now it must be displayed on shipments of fissile material (paragraphs 544 and 545) using a new "fissile material" label. The redefined TI is determined in the same way as the "TI for radiation control purposes" and continues to be displayed on the traditional "radioactive material" label.

TS–R–1 (paragraph 530) also increased the allowable per package TI limit (for criticality control purposes (new CSI)) from 10 to 50 for nonexclusive use shipments. No change was made to the per package radiation TI limit of 10 for nonexclusive use shipments. As noted above, a consolidated radiation safety and CSI existed in the past. In this consolidated index, the per package TI limit of 10 was historically based on concerns regarding the fogging of photographic film in transit, because film might also be present on a nonexclusive use conveyance. Consequently, when the single radiation and criticality safety indexes were split into the TI and CSI indexes, the IAEA determined that the CSI per package limit, for fissile material packages that are shipped on a nonexclusive use conveyance, could be raised from 10 to 50. The IAEA believed that limiting the total CSI to less than or equal to 50 in a nonexclusive use shipment provided sufficient safety margin, whether the shipment contains a single package or multiple packages. Therefore, the per package CSI limit, for nonexclusive use shipments, can be safely raised from 10 to 50, thereby providing additional flexibility to shippers. Additionally, no change was made to the per package CSI limit of 100 for exclusive use shipments.

The NRC believes the differentiation between criticality control and radiation protection would better define the hazards associated with a given package and, therefore, provide better package hazard information to emergency responders. The increase in the per package CSI limit may provide additional flexibility to licensees by permitting the increased use of less expensive, nonexclusive use shipments. However, licensees will still retain the flexibility to ship a larger number of packages of fissile material on an exclusive use conveyance.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment 1. One commenter requested a basic explanation of the CSI

and TI. The commenter questioned if the proposed changes would increase public risk. Another commenter asked for clarification on how NRC would calculate CSI for radiological shipments to ensure that a shipment is under limits.

Response. The requested explanation was provided during the June 4, 2001, public meeting at which the first comment was made (*see* NRC rulemaking interactive Web site at *http://ruleforum.llnl.gov*. In addition, the proposed rule contains background on the CSI; regarding increased public risk. The draft RA concluded the change is appropriate from a safety perspective. Also, *see* Background discussion for this issue.

Comment. One commenter expressed opposition to the text that would restrict accumulations of fissile material to a total CSI of 50 in situations where radioactive materials are stored incident to transport. The commenter added that this would effectively remove the ability to transport internationally and/or by multiple modes under exclusive use conditions and would negatively impact the international movement of fissile materials under nonproliferation programs. The commenter further noted that this provision would apply only to shipments to or from the U.S., thus creating a disadvantage for American businesses in the international market.

Response. The NRC agrees with these comments. The intent of the storage phrase was to permit segregation of groups of stored packages, consistent with IAEA and DOT requirements, but the NRC staff believes that the proposed text did not accommodate that practice. DOT requirements restrict accumulation of packages during transport, based on summing the packages' CSI or TI, including during storage incident to transport. In light of the division of regulatory responsibilities explained in the NRC–DOT Memorandum of Understanding (44 FR 38690; July 2, 1979), the NRC exemptions for carriers-in-transit in 10 CFR 70.12, and DOT's proposed 49 CFR 173.457 (67 FR 21384; April 30, 2002), the NRC staff believes that storage in transit provisions proposed in §§ 71.59(c)(1), 71.22(d)(3), and 71.23(d)(3) are unwarranted. The NRC has deleted the phrase "or stored incident to transport" from these sections.

Comment. One commenter stated that in proposed §§ 71.59(c)(1), (2) and (3), and 71.55(f)(3), the values of 50.0 and 100.0 should be changed to 50 and 100 to be consistent with the application of the CSI.

Response. The NRC staff did not intend nor does it believe that there is a substantive difference between "50" and "50.0" as used in part 71. In proposing to use the decimal place, the NRC staff was attempting to increase precision when the CSI is exactly 50.0 and promote consistency as the CSI is by definition rounded to the nearest tenth. However, the NRC staff noted that both DOT's proposed rule and IAEA TS–R–1 use "50" without a decimal place. The NRC staff agrees that consistency amongst the three rules is desirable unless a reason exists for differentiating. Accordingly, conforming changes have been made to the part 71 final rule.

Comment. One commenter expressed opposition to the rounding of the CSI provision in the proposed rule, because it is inconsistent with TS–R–1 and places additional limits on the array size of shipments.

Response. The commenter correctly observes that § 71.59(b) requires all nonzero CSIs to be rounded up to the first decimal place and that the corresponding TS–R–1 requirement (paragraph 528) does not require such rounding. Rounding up the CSI is necessary to ensure that an unanalyzed number of packages are not transported together; rounding a CSI down would permit such situations. The NRC staff notes that this U.S. provision predates the currently contemplated changes for compatibility with TS–R–1 (viz., the existing U.S. domestic regulations are also different than the 1985 IAEA transport regulations in this respect).

Consistent with the NRC proposal, the IAEA's implementing guidance for TS–R–1 (*i.e.*, TS–G–1.1 at para. 528.3) states, "The CSI for a package * * * should be rounded up to the first decimal place" and "the CSI should not be rounded down." The NRC staff noted that the IAEA's guidance, however, does observe that use of the exact CSI value may be appropriate in cases when rounding results in less than the analyzed number of packages to be shipped.

The NRC staff believes that the rule is compatible with IAEA TS–R–1. Furthermore, because the domestic convention on rounding predates this rulemaking for compatibility with 1996 TS–R–1, and because the statements of consideration did not explicitly discuss the rounding practice, the potential elimination of the rounding practice is beyond the scope of the current rulemaking action.

Comment. Three commenters expressed agreement with NRC's proposed position. One of the three commenters expressed support for the NRC's CSI proposal, reasoning that it provides more accurate communication regarding radioactive material in transport, especially in conjunction with the TI for radiation exposure. The commenter noted that the CSI is important to ensure consistency between domestic and international movements of fissile material. Another commenter stated that use of the CSI would "remove a source of confusion with the old TI values. The resulting enhancement of the safety of shipments makes the extra efforts necessary to implement these proposals worthwhile."

Response. No response is necessary.

Comment. One commenter stated that the CSI "should be set so as to maximize protective benefit for workers and the public without regard for added costs to licensees and users." The commenter added that there doesn't seem to be a "strong argument against adoption" of the IAEA CSI but then stated that the increase from 10 to 50 per package does not have adequate justification. Further, the commenter stated that if cost reduction for licensees is the only reason for this change, then the proposal is unacceptable.

Response. The CSI is derived to prevent nuclear criticality for single packages and arrays of packages, both in incident-free and accident conditions of transport. Therefore, the NRC staff has determined that the application of the CSI does support protection of workers and the public. The basis for increasing the accumulation of packages from 10 TI under the old system to 50 CSI in the new system is given in the proposed rule (at 67 FR 21401), and it is not a solely economic basis. Specifically, the limit of 10 TI was based on radiation damage to film, so when the TI and CSI were split in 1996, a separate limit on package accumulation based on criticality prevention, of 50 CSI, became warranted.

Issue 6. Type C Packages and Low Dispersible Material

Summary of NRC Final Rule. The final rule does not adopt the Type C or Low dispersible material (LDM) requirements for plutonium air transport as introduced in the IAEA TS–R–1. NRC decided not to adopt Type C or LDM requirements because the U.S. regulations in §§ 71.64 and 71.71 governing plutonium air transportation to, within, or over the United States contains more rigorous packaging standards than those in the IAEA TS–R–1. Furthermore, the NRC's perception is that there is a lack of current or anticipated need for such packages, and NRC acknowledges that the DOT import/export provisions permit use of IAEA regulations.

Affected Sections. None (not adopted).

Background. TS–R–1 introduced two new concepts: the Type C package (paragraphs 230, 667–670, 730, 734–737) and the LDM. The Type C packages are designed to withstand severe accident conditions in air transport without loss of containment or significant increase in external radiation levels. The LDM has limited radiation hazard and low dispersibility; as such, it could continue to be transported by aircraft in Type B packages (*i.e.,* LDM is excepted from the TS–R–1 Type C package requirements). United States regulations do not contain a Type C package or LDM category but do have specific requirements for the air transport of plutonium (§§ 71.64 and 71.74). These specific NRC requirements for air transport of plutonium would continue to apply.

The Type C requirements apply to all radionuclides packaged for air transport that contain a total activity value above 3,000 A_1 or 100,000 A_2, whichever is less, for special form material, or above 3,000 A_2 for all other radioactive material. Below these thresholds, Type B packages would be permitted to be used in air transport. The Type C package performance requirements are significantly more stringent than those for Type B packages. For example, a 90-meter per second (m/s) impact test is required instead of the 9-meter drop test. A 60-minute fire test is required instead of the 30-minute requirement for Type B packages. There are other additional tests, such as a puncture/tearing test, imposed for Type C packages. These stringent tests are expected to result in package designs that would survive more severe aircraft accidents than Type B package designs.

The LDM specification was added in TS–R–1 to account for radioactive materials (package contents) that have inherently limited dispersibility, solubility, and external radiation levels. The test requirements for LDM to demonstrate limited dispersibility and leachability are a subset of the Type C package requirements (90-m/s impact and 60-minute thermal test) with an added solubility test, and must be performed on the material without packaging for nonplutonium materials. The LDM must also have an external radiation level below 10 mSv/hr (1 rem/hr) at 3 meters. Specific acceptance criteria are established for evaluating the performance of the material during and after the tests (less than 100 A_2 in gaseous or particulate form of less than 100-micrometer aerodynamic equivalent diameter and less than 100 A_2 in solution). These stringent performance and acceptance requirements are intended to ensure that these materials can continue to be transported safely in Type B packages aboard aircraft.

In 1996, the NRC communicated to the IAEA that the NRC did not oppose the IAEA adoption of the newly created Type C packaging standards (letter dated May 31, 1996, from James M. Taylor, EDO, NRC, to A. Bishop, President, Atomic Energy Control Board, Ottawa, Canada). However, Mr. Taylor stated in the letter that to be consistent with U.S. law, any plutonium air transport to, within, or over the U.S. will be subject to the more rigorous U.S. packaging standards. Industry needs to be aware of changes or potential changes based on new IAEA standards.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Four commenters expressed support for NRC's proposal to not adopt the requirements for Type C packages and LDM. One commenter also expressed support for the NRC's decision to ensure that there is a mechanism for reviewing validations of foreign approvals. One commenter stated that the IAEA specification is too broad and that NRC and DOT should work with IAEA to reduce the scope to a few packages containing fissile oxides of plutonium, but there is no need for this package to transport Class 7 materials.

Two commenters stated that the benefits did not justify the costs of the proposed changes and strongly supported the NRC position not to adopt the Type C requirements. One commenter stated that many parties are asking IAEA to modify the Type C requirements. The commenter urged NRC to see how these change proposals will affect the Type C requirements before adopting them into the U.S. regulations. Additionally, the commenter stated that the need for Type C packages for all radioactive material has not been demonstrated.

Response. The NRC staff acknowledges these comments that endorse the position to not adopt Type C package requirements at this time, for the reasons specified in the proposed rule (67 FR 21402). The NRC staff agrees that Type C issues will likely receive further consideration in future IAEA rule cycles. No further response is necessary.

Comment. Two commenters stated that the threat of terrorism should be taken into account when exempting radionuclides from transport regulations and changing container regulations. One commenter stated that the fact of the September 11, 2001, attacks needs to be accounted for with upgraded Types B and C testing, which are currently believed to be insufficient. The commenter added that these tests should "assure the highest probability that packages will survive unbreached."

Response. The NRC acknowledges the concern expressed regarding the threat of terrorism. However, the NRC does not propose adopting Type C and LDM requirements at this time. The NRC staff notes that the IAEA is conducting further evaluations on Type C package requirements, which may result in other changes for safety and security purposes. Also, see Section II, above, for general comments on terrorism.

Comment. One commenter asked if workers will be protected and notified when handling Type C packages and plutonium, and whether they will be notified that there will be increased hazards once the proposed rule is effective.

Response. The requested information on worker protection was provided at the public meeting at which the comment was made. Application of DOT's regulations, including hazardous materials training requirements, package radiation limits, and contamination limits, will protect workers for Type C packages just as for other shipments. In addition, the robustness of the packaging would provide protection in accidents. Thus, changes to the probability or consequences of releases in accidents do not result from proposed changes to Type C packages. The NRC does not propose adopting IAEA Type C or LDM standards at this time, and domestic regulations were not revised.

Comment. One commenter recommended that the NRC "adopt these provisions in order to better the goal of compatibility with IAEA regulations." This commenter continued by stating that "industry would then have a basis for developing such a package if desirable."

Response. These comments recommend adoption of Type C standards in the interest of the goal of IAEA compatibility and speculate that a domestic Type C package regulation and certification might be desirable in the future. The NRC staff does not believe that deferring domestic rules on Type C packages makes U.S. regulations incompatible with IAEA regulations (*viz.,* the U.S. and IAEA rules are not identical but they are compatible). The NRC staff believes there is not a need to adopt Type C standards at this time because of the reasons specified in the proposed rule (67 FR 21402) and

(a) The perception of a lack of a current or anticipated need,

(b) The DOT import/export provisions that permit use of IAEA regulations, and

(c) The existing U.S. regulations and laws covering plutonium air transport.

This can be reevaluated during future periodic rulemakings for IAEA compatibility, as necessary. In addition, the proposed rule stated that upon request from DOT, NRC would perform a technical review of Type C packages against IAEA TS–R–1 standards. The comments do not indicate a current need; therefore, the NRC staff has decided to retain the position explained in its proposed rule to not adopt Type C or LDM requirements.

Comment. One commenter said that air transport of plutonium and other radionuclides should be prohibited under all circumstances. The commenter stated that "low dispersible materials" is a faulty concept regarding air transport and urged NRC to abandon this concept.

Response. The NRC staff disagrees with the comments that air transport of plutonium and other radionuclides should be prohibited under all circumstances. These practices are recognized in multiple U.S. laws and regulations, and have been carried out with an excellent safety record. Consistent with the position expressed in the proposed rule, the NRC decided not to adopt the low dispersible material provisions at this time.

Issue 7. Deep Immersion Test

Summary of NRC Final Rule. The final rule adopts the requirement for an enhanced water immersion test (deep immersion test) which is applicable to any Type B or C packages containing activity greater than 10^5A_2. The purpose of the deep immersion test is to ensure package recoverability. The basis for expanding the scope of the deep immersion test to include additional Type B or C packages containing activity greater that 10^5A_2 was due to the fact that radioactive materials, such as plutonium and high-level radioactive waste, are increasingly being transported by sea in large quantities. The threshold defining a large quantity as a multiple of A_2 is considered to be a more appropriate criterion to cover all radioactive materials and is based on a consideration of potential radioactive exposure resulting from an accident. Also, the NRC is retaining the current test requirements in § 71.61 of "one hour w/o collapse, buckling or leakage of water." The NRC is retaining this acceptance criterion of "w/o collapse, buckling, or leakage" as opposed to the acceptance criterion specified in TS–R–1 of only "no rupture" of the containment. NRC has determined that the term "rupture" cannot be determined by engineering analysis and the term "w/o collapse, buckling or leakage of water" is a more precise definition for acceptance criterion.

Affected Sections. Sections 71.41, 71.51, 71.61.

Background. TS–R–1 expanded the performance requirement for the deep water immersion test (paragraphs 657 and 730) from the requirements in the IAEA Safety Series No. 6, 1985 edition. Previously, the deep immersion test was only required for packages of irradiated fuel exceeding 37 PBq (1,000,000 Ci). The deep immersion test requirement is found in Safety Series No. 6, paragraphs 550 and 630, and basically stated that the test specimen be immersed under a head of water of at least 200 meters (660 ft) for a period of not less than 1 hour, and that an external gauge pressure of at least 2 MPa (290 psi) shall be considered to meet these conditions. The TS–R–1 expanded immersion test requirement (now called enhanced immersion test) now applies to all Type B(U) (unilateral) and B(M) (multilateral) packages containing more than 10^5 A_2, as well as Type C packages.

In its September 28, 1995 (60 FR 50248), rulemaking for part 71 compatibility with the 1985 edition of Safety Series No. 6, the NRC addressed the new Safety Series No. 6 requirement for spent fuel packages by adding § 71.61, "Special requirements for irradiated nuclear fuel shipments." Currently, § 71.61 is more conservative than Safety Series No. 6 with respect to irradiated fuel package design requirements. It requires that a package for irradiated nuclear fuel with activity greater than 37 PBq (10^6 Ci) must be designed so that its undamaged containment system can withstand an external water pressure of 2 MPa (290 psi) for a period of not less than 1 hour without collapse, buckling, or inleakage of water. The conservatism lies in the test criteria of no collapse, buckling, or inleakage as compared to the "no rupture" criteria found in Safety Series No. 6 and TS–R–1. The draft advisory document for TS-R–1 (TS–G–1.1, paragraphs 657.1 to 657.7) recognizes that leakage into the package and subsequent leakage from the package are possible while still meeting the IAEA requirement.

The Safety Series No. 6 test requirements were based on risk assessment studies that considered the possibility of a ship carrying packages of radioactive material sinking at various locations. The studies found that, in most cases, there would be negligible harm to the environment if a package were not recovered. However, should a large irradiated fuel package (or packages) be lost on the continental shelf, the studies indicated there could be some long-term exposure to man through the food chain. The 200-meter (660-ft) depth specified in Safety Series No. 6 is equivalent to a pressure of 2 MPa (290 psi), and roughly corresponds to the continental shelf and to depths that the studies indicated radiological impacts could be important. Also, 200 meters (660 ft) was a depth at which recovery of a package would be possible, and salvage would be facilitated if the containment system did not rupture. (Reference Safety Series No. 7, paragraphs E–550.1 through E–550.3.)

The expansion in scope of the deep immersion test was due to the fact that radioactive materials, such as plutonium and high-level radioactive wastes, are increasingly being transported by sea in large quantities. The threshold defining a large quantity as a multiple of A_2 is considered to be a more appropriate criterion to cover all radioactive materials and is based on a consideration of potential radiation exposure resulting from an accident.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter stated that a 1-hour test is "wholly inadequate as a risk basis, given that as many as 100,000 shipments of highly irradiated 'spent' fuel are anticipated to being moved transcontinentally on highways and railroads." The commenter added that "barge shipments should be prohibited outright." Finally, the commenter recommended more stringent immersion testing for shipping canisters.

Response. The NRC acknowledges the comment. However, the NRC believes it is already moving towards more stringent standards with this rule. The 1-hour test is sufficient to demonstrate structural integrity and prevent inleakage. Most hydrostatic testing of components are for durations much less than 1 hour. A test duration of 1 hour is reflective of a practical requirement that will ensure the desired package performance. While a longer duration test may appear to be more reflective of the actual immersion times that might exist following an accident, the duration of the test must be considered in conjunction with the purpose of the test and the acceptance criteria specified for successfully passing the test.

The purpose of the deep immersion test, as described in IAEA TS–G–1.1, paragraphs 657.1 to 657.7, is to ensure package recoverability. The acceptance criterion specified in TS–R–1 is that there be no "rupture" of the containment system. As described in the rule, NRC believes that a more precisely defined acceptance criterion of no "collapse, buckling, or inleakage of water" is preferable. Type B package designs that are capable of withstanding a 1-hour test without "collapse, buckling, or inleakage of water" are likely to be sufficiently robust that a longer duration test would not produce significantly greater structural damage.

Comment. One commenter suggested that the deep immersion test should consider the possibility that the cask could already be damaged or ruptured at the time of immersion. The commenter asked if there has been an analysis of the dissemination of radionuclides at high pressures for partially or completely ruptured casks. The commenter stated that this issue is relevant due to the frequent transportation of radioactive waste across the Great Lakes and between the U.S. and other nations, such as Russia.

Response. The acceptance criterion for the deep immersion test is no "collapse, buckling, or inleakage of water." If a cask is already damaged or ruptured at the time of immersion, then the immersion test becomes a moot point because the acceptance criterion cannot be met. Studies have been performed, including the IAEA-sponsored Coordinated Research Project on "Severity, probability and risk of accidents during the maritime transport of radioactive material," that examined the potential radiological consequences of such accidents. The report of the Coordinated Research Project, IAEA–TECDOC–1231, is available online at: *http://www.iaea.org/ns/rasanet/programme/radiationsafety/transportsafety/Downloads/Files2001/t1231.pdf.*

Comment. One commenter stated that if older, previously certified packages can no longer be "grandfathered," it will take significant effort to show that these packages meet the deep immersion test and will result in little safety benefit for the shipments.

Response. The commenter's connection between immersion testing and grandfathering (*see* Issue 8) of existing certified packages is not obvious. Under current NRC regulations (§ 71.61), a package for irradiated nuclear fuel with activity greater than 37 PBq (10^6 Ci) must meet the immersion test requirement. Under the revised requirement, these same packages could be used for shipment of irradiated nuclear fuel containing activity greater than 10^5 A_2 and would not require additional immersion testing (because the packages must already comply with the test requirement).

Comment. Three commenters expressed support for NRC's position on this issue. One commenter stated that the proposed rule's deep immersion test provisions would increase cask safety.

Response. No response is required.

Comment. One commenter urged the NRC to require more stringent testing procedures for both old and new shipping containers (including longer drops; greater crash impacts; longer and higher pressure water submersion; leakage resistance; higher, longer, more intense fire temperatures; and much greater explosive forces). Another commenter requested that NRC change its standards so that casks damaged in sequential tests would be required to survive immersion at depths greater than those in the proposed rule.

Response. The NRC acknowledges this comment but believes that it has adequate package testing requirements in the rule.

Comment. One commenter asked if containers that were not currently certified to carry over one million curies would become authorized to carry over one million curies under the proposed rule.

Response. If a package design is not currently certified to carry over one million curies, its status will not be changed by this rulemaking. Any restrictions on a package design imposed through the NRC-issued CoC remain unaffected.

Comment. One commenter stated that the cost of compliance was grossly underestimated, particularly for demonstrating cask integrity at 200 meters.

Response. NRC staff appreciates the comment and fully understands the importance of accurate cost data. As part of the proposed rulemaking, the NRC specifically requested cost-benefit information on this issue as well as a number of other issues. To the extent NRC received data from public comments, these data were considered in developing its final decision.

Comment. One commenter asked if the deep immersion test would apply to all packages shipped across Lake Michigan.

Response. Under the proposed rule, the deep immersion test would be applied to any Type B or C package that contains greater than 10^5 A_2, regardless of the transport mode. Therefore, the immersion test requirement would be applicable to all shipments involving a package with an activity exceeding 10^5 A_2, including any across Lake Michigan.

Comment. One commenter asked if the deep immersion test actually requires a physical test. If the deep immersion test did not actually require a physical test, the commenter asked NRC to clarify what it means by "test." The commenter also wanted NRC to clarify to what the test specifically applies.

Response. As cited in the IAEA advisory document TS–G–1.1, paragraph 730.2: "The water immersion test may be satisfied by immersion of the package, a pressure test of at least 2 MPa, a pressure test on critical components combined with calculations, or by calculations for the whole package." In answer to the commenter's specific question, a physical test is not required, and calculational techniques may be used. Regarding what the test specifically applies to, ST–2, Section 730.3, states that: "The entire package does not have to be subjected to a pressure test. Critical components such as the lid area may be subjected to an external gauge pressure of at least 2 MPa and the balance of the structure may be evaluated by calculation." Thus, testing may be performed physically, by analysis, or by a combination of the two.

Comment. One commenter stated that industry supports the NRC position on deep immersion testing.

Response. The comment is acknowledged.

Comment. One commenter expressed concern that the deep immersion test only requires that packages be submerged for 1 hour. The concern is based on the belief that it is unlikely a package could be recovered within an hour following a real accident.

Response. The 1-hour time limit only applies to the immersion test and is the minimum time that the package shall be subjected to the test conditions. It is not expected that a package could be recovered within 1 hour of an accident involving submergence of the package. In fact, in the IAEA advisory document TS–G–1.1, paragraph 657.7 states: "Degradation of the total containment system could occur with prolonged immersion and the recommendations made in the above paragraphs (657.1 through 657.6) should be considered as being applicable, conservatively, for immersion periods of about 1 year, during which recovery should readily be completed."

Comment. One commenter asked NRC to clarify its assertion that the immersion test is stricter than the IAEA's test because the NRC's language

does not allow collapse, buckling, or any leakage of water.

Response. TS–R–1, paragraph 657, states, in part, that for a package subjected to the enhanced water immersion test (NRC uses the term deep immersion test), there would be no "rupture of the containment system." The term rupture is not a defined engineering term in the IAEA literature related to TS–R–1. Further, the IAEA advisory document TS–G–1.1, paragraph 730.3, states, in part, that some degree of buckling or deformation is acceptable during the enhanced water immersion test. Lacking specificity to the term rupture, the NRC imposed specific, and it believes conservative, requirements that do not allow collapse, buckling, or inleakage of water for a package undergoing the deep immersion test.

Issue 8. Grandfathering Previously Approved Packages

Summary of NRC Final Rule. The final rule adopts the following grandfathering provisions for previously approved packages in section 71.13:

(1) Packages approved under NRC standards that are compatible with the provisions of the 1967 edition of Safety Series No. 6 may no longer be fabricated, but may be used for a 4-year-period after adoption of a final rule;

(2) Packages approved under NRC standards that are compatible with the provisions of the 1973 or 1973 (as amended) editions of Safety Series No. 6 may no longer be fabricated; however, may still be used;

(3) Packages approved under NRC standards that are compatible with the provisions of the 1985 or 1985 (as amended 1990) editions of Safety Series No. 6, and designated as "-85" in the identification number, may not be fabricated after December 31, 2006, but may be continued to be used; and

(4) Package designs approved under any pre-1996 IAEA standards (*i.e.*, packages with an "-85" or earlier identification number) may be resubmitted to the NRC for review against the current standards. If the package design described in the resubmitted application meets the current standards, the NRC may issue a new CoC for that package design with a "-96" designation.

Thus, the final rule adopts, in part, the provisions for grandfathering contained in TS–R–1. The NRC believes that packages previously approved under the 1967 edition of Safety Series No. 6 lack the enhanced safety enrichments which have been incorporated in the packages approved under the provisions of the 1973, 1973 (as amended), 1985 and 1985 (as amended) editions of Safety Series No. 6. For example, later designs demonstrate a greater degree of leakage resistance and are subject to quality assurance requirements in subpart H of part 71. Furthermore, NRC believes that by discontinuing the use of package designs that have been approved to Safety Series No. 6, 1967, for both domestic and international transport of radioactive material, it will ensure safety during transportation and thus will increase public confidence. However, NRC has not adopted the immediate phase out of 1967-approved packages as the IAEA has, Instead, NRC implemented a 4-year transition period for the grandfathering provision on packages approved under the provisions of the 1967 edition of Safety Series No. 6. This period provides industry the opportunity to phase out old packages and phase in new ones, or demonstrate that current requirements are met. NRC recognizes that when the regulations change there is not necessarily an immediate need to discontinue use of packages that were approved under previous revisions of the regulations. The final rule includes provisions that would allow previously-approved designs to be upgraded and to be evaluated to the newer regulatory standards. Note that in 1996, IAEA first published that the 1967-approved packages would be eliminated from use. Thus, with the final rule 4-year phase out of these older packages, industry will have had 12 years (*i.e.*, until 2008) to evaluate its package designs and prepare for the eventual phase out.

Affected Sections. Section 71.13.

Background. Historically, the IAEA, DOT, and NRC regulations have included transitional arrangements or "grandfathering" provisions whenever the regulations have undergone major revision. The purpose of grandfathering is to minimize the costs and impacts of implementing changes in the regulations on existing package designs and packagings. Grandfathering typically includes provisions that allow: (1) Continued use of existing package designs and packagings already fabricated, although some additional requirements may be imposed; (2) completion of packagings that are in the process of being fabricated or that may be fabricated within a given time period after the regulatory change; and (3) limited modifications to package designs and packagings without the need to demonstrate full compliance with the revised regulations, provided that the modifications do not significantly affect the safety of the package.

Each transition from one edition of the IAEA regulations to another (and the corresponding revisions of the NRC and DOT regulations) has included grandfathering provisions. The 1985 and 1985 (as amended 1990) editions of Safety Series No. 6 contained provisions applicable to packages approved under the provisions of the 1967, 1973, and 1973 (as amended) editions of Safety Series No. 6. TS–R–1 includes provisions which apply to packages and special form radioactive material approved under the provisions of the 1973, 1973 (as amended), 1985, and 1985 (as amended 1990) editions of Safety Series No. 6.

TS–R–1 grandfathering provisions (*see* TS–R–1, paragraphs 816 and 817) are more restrictive than those previously in place in the 1985 and 1985 (as amended 1990) editions of Safety Series No. 6. The primary impact of these two paragraphs is that packagings approved under the 1967 edition of Safety Series No. 6 are no longer grandfathered; *i.e.*, cannot be used. The second impact is that fabrication of packagings designed and approved under Safety Series No. 6 1985 (as amended 1990) must be completed by a specified date. Regarding special form radioactive material, TS–R–1 paragraph 818 does not include provisions for special form radioactive material that was approved under the 1967 edition of Safety Series No. 6. Special form radioactive material that was shown to meet the provisions of the 1973, 1973 (as amended), 1985, and 1985 (as amended 1990) editions of Safety Series No. 6 may continue to be used. However, special form radioactive material manufactured after December 31, 2003, must meet the requirements of TS–R–1. Within current NRC regulations, the provisions for approval of special form radioactive material are already consistent with TS–R–1.

In TS–R–1, packages approved under Safety Series No. 6, 1973 and 1973 (as amended) can continue to be used through their design life, provided the following conditions are satisfied: (1) Multilateral approval is obtained for international shipment; (2) applicable TS–R–1 quality assurance (QA) requirements and A1 and A2 activity limits are met; and (3) if applicable, the additional requirements for air transport of fissile material are met. While existing packagings are still authorized for use, no new packagings may be fabricated to this design standard. Changes in the packaging design or content that significantly affect safety require that the package meet current requirements of TS–R–1.

TS–R–1 further states that those packages approved for use based on the 1985 or 1985 (as amended 1990) editions of Safety Series No. 6 may continue to be used with unilateral approval until December 31, 2003, provided the following conditions are satisfied: (1) TS–R–1 QA requirements and A_1 and A_2 activity limits are met; and (2) if applicable, the additional requirements for air transport of fissile material are met. After December 31, 2003, use of these packages for foreign shipments may continue under the additional requirement of multilateral approval. Changes in the packaging design or content that significantly affect safety require that the package meet current requirements of TS–R–1. Additionally, new fabrication of this type of packaging must not be started after December 31, 2006. After this date, subsequent package designs must meet TS–R–1 package approval requirements.

Analysis of Public Comments on the Proposed Rule

The NRC notes that although there were a significant number of comments reflecting opposition to the proposed grandfathering change to the regulation, the majority of these comments were received from two commenters representing the same company. The remaining comments reflected opinions ranging from strong opposition to any grandfathering of designs to full support for the proposed rule change. Accordingly, following discussions with the DOT, NRC changed the transition period from 3 years in the proposed rule to 4 years in the final rule. With the effective date of this final rule being October 1, 2004, the transition period is almost 5 years. A review of the specific comments and the NRC staff's responses for this issue follows.

Comment. One commenter stated that the IAEA standards are consensus based and that NRC must recognize they do not necessarily consider the risk-informed, performance-based aspects of regulations that are developed in the United States. The commenter added that NRC regulations should also provide allowance for domestic-only applications, which would include, for example, the grandfathering provision. While the IAEA provisions must apply to international shipments, for domestic-only shipments the grandfathering provision would allow the continued use of existing packages manufactured to the 1967 standard, but prohibit the manufacture of any new packages.

Response. The NRC staff finding is to phase out those packages approved to Safety Series No. 6, 1967 Edition, over a 4-year period after October 1, 2004. The NRC believes this time period allows industry adequate time to phase out old packages, phase in new ones, or resubmit a package design for review against the current standards. NRC considers it undesirable to be incompatible with IAEA with respect to this provision. In eliminating the grandfathering of these older designs, the IAEA concluded and NRC agrees that the continuance of packages that could not be shown to meet updated standards was no longer justified. As described, certain packages approved under the 1967 edition of the regulations may lack safety enhancements that later designs have incorporated. The NRC acknowledges the comment about risk-informed, performance-based regulations but notes that the applicability of this change was not justified.

Comment. One commenter suggested that NRC require far more stringent testing procedures for both old and new shipping containers (longer drops; greater crash impacts; longer and higher pressure water submersion; leakage resistance; higher, longer, more intense fire temperatures; and much greater explosive forces). Another commenter stated that "packages and containers should be subject to upgraded safety testing and more rigorous standards than have been required in the past," especially after the events of September 11, 2001.

Response. The NRC acknowledges these comments and notes that the commenters did not provide justification for the proposed changes. Packages designed to regulations that are based on the 1973 and later editions of Safety Series 6, in general, may include safety enhancements, including designs, that demonstrate a greater degree of leakage resistance. Major changes in the physical test parameters for Type B packages are not being considered at this time, either by NRC or the IAEA. NRC is confident that packages designed to meet the current Type B standards provide a high degree of safety in transport, even under severe transportation accidents.

Comment. One commenter objected to any grandfathering of casks. The commenter stated that "it will be a number of years before appreciable amounts of 'spent' fuel can be transported for more permanent disposition" and that this "gives a substantial window of time for design, development, and proof testing of new, better shipping casks."

Response. The NRC and DOT have in place comprehensive regulations that will support the safety of a large scale shipping campaign to a central geologic repository should one ever be built. Such safety is reliant upon the use of certified casks with robust design and regulations that address training of staff dealing with shipments and use of routes that minimize potential dose to the public. The safety record of shipments of spent fuel both here and overseas has been excellent. NRC regulations are compatible with IAEA regulations with respect to grandfathering previously approved designs. These provisions allow continued use of designs approved to earlier regulatory standards; however, the provisions include certain restrictions with respect to package modifications and fabrication. These provisions have been adopted to allow a transition to newer regulations while maintaining a high level of safety in transport. Packages that were approved to the 1967 IAEA standards are being phased out because they may not include safety enhancements of later designs.

Comment. One commenter stated that accurate data are not currently available to forecast cost-benefit impacts. The commenter urged NRC to work with those who hold Type B packages to determine whether they want to maintain these packages. A second commenter stated that the costs of requiring the replacement of 1967-specification packages are substantial and that the benefits of requiring the replacements for domestic use are zero. The commenter also stated that the NRC should allow usage periods to be extended long enough to ensure that the "money's worth" has been obtained. The commenters added that NRC should not propose changes when no harm or hazard has been demonstrated.

Response. The NRC has made the decision to begin a 4-year phase out of packages that have been approved to Safety Series No. 6, 1967. However, NRC will allow package designs to be submitted for review against the current requirements (TS–R–1). Based on this pathway, over the 4-year period (after effective date of the final rule), industry can determine which Type B packages they choose to submit for review to the current requirements or have them phased out of use for shipping. NRC has no current plans to contact individual design holders of affected package designs to suggest an action on their part.

In evaluating the cost and benefits associated with the proposed phasing out of the 1967-based packages, the NRC staff considered that these designs may fall into one of the following five categories:

(1) Package designs that may meet current safety standards with no modifications but have not been submitted for recertification. This category includes package designs for which there is probably sufficient supporting technical safety basis to support certification under current requirements. For example, test data and engineering analyses probably exist and are still relevant to the current safety standards.

Costs associated with these package designs include the following:

(a) Development of an application ($10–$50K); and

(b) Review costs for NRC certification ($20K for 135 hours—nonspent fuel amendment).

The total costs might be expected to be in the range of $30–$70K per package design.

(2) Package designs that can be shown to meet current safety standards with probably relatively minor design changes.

Costs associated with these package designs include the following:

(a) Design analysis and physical testing for modifications ($10K–$100K);

(b) Development of revised package application ($10K–$50K—based on approximately 200 staff hours of work);

(c) Review costs for NRC certification ($20K—based on 135 staff hours for review of nonspent fuel amendment requests); and

(d) Packaging modifications to fleet of packagings (minor—$200 per packaging, major—$5K per packaging).

The total cost would be expected to be in the range of $40K to $170K depending on the modifications in the design or testing information. This does not include the costs for making the physical changes in the packagings, which could vary significantly for different package types and different design modifications, in addition to the number of packagings that needed to be modified.

For packages in Categories 1 and 2, NRC staff believe that the expense of recertifying the design should be reasonable and is small when considering the length of time these package designs have already been in service (longer than 20 years). There is additional financial incentive for upgrading these designs, because upgrading would allow additional packagings to be fabricated and allow certificate holders to request a wide range of modifications, both to the package design and the authorized contents.

(3) Package designs that may meet current safety standards but are impractical to recertify.

This category is intended to capture the special nature of spent fuel casks that were certified to the 1967 IAEA standards. These package designs may be considered separately for several reasons, including:

(a) Domestic regulatory design standards for spent fuel casks existed before standards for other package types;

(b) QA requirements were applied to this type of package, whereas other package types were not subjected to the same level of QA either for design or fabrication; and

(c) These packages normally have a limited specific use and are, therefore, not present in large numbers in general commerce.

For packages in this category, NRC staff will be willing to review an application under the exemption provisions of § 71.8 that requests an exemption to specific performance requirements for which demonstration is not practical. The applicant would be free to propose, for example, additional operational controls that would provide equivalent safety. The exemption request could use risk information in justifying the continued use of these existing packagings.

Costs associated with these package designs include the following:

(a) Development of application, including risk information ($150K); and

(b) NRC review costs ($40,000—based on 270 staff hours for a "non-standard" spent fuel package amendment request).

(4) Package designs that cannot be shown to meet current safety standards.

Costs associated with these package designs include the following:

(a) Development of new designs ($100–150K);

(b) Analysis and physical tests ($50K for prototype + 100K);

(c) Development of package application;

(e) NRC review costs ($40,000—based on 270 staff hours for review of new designs for nonspent fuel); and

(f) Fabrication costs ($50K per package).

The cost information for development of new designs and the analysis and testing of these newly designed packages (Category 4) were provided to NRC by industry commenters during the public comment period.

(5) Packages for which the safety performance of the package design under the current safety standards is not known. This is due primarily to a lack of documentation available regarding the package design and performance.

NRC staff believes it is appropriate to phase out the use of designs that fall into Categories 4 and 5. NRC staff believes that there are package designers that may be willing and able to develop new designs provided there is a financial incentive. With the continued use of packages that cannot be shown to meet current standards, there will be no financial incentive to upgrade designs. In addition, most packagings certified to the 1967 design standards are more than 20 years old. Although proper maintenance of transportation packagings is required, it is not clear that the service life of many types of packagings would justify continued use.

The cost estimates associated with NRC review are based on historical information gathered over years of performing technical reviews of transportation package designs. There are many factors that significantly influence the review time associated with performing staff technical reviews for new package designs and amendments. Some of the most important factors are: quality of the application, design margins in the package, and a clear and unambiguous demonstration that the regulatory acceptance criteria have been met. The costs previously cited are not considered maximum or minimum but are representative and conservative averages based on receipt of a complete and high-quality package application.

The estimates of costs associated with development of designs, testing, and preparation of application are extrapolated from information provided by commenters to the proposed rule.

Comment. One commenter stated that packages that were manufactured to the 1967 safety standard should be allowed to continue in domestic service, unless a safety problem is identified. This commenter provided monetized data to show how expensive our proposed position could be.

Response. In the final rule published September 28, 1995 (60 FR 50254), NRC wrote: "NRC believes that the international package standards should be used by the United States for both domestic and international shipments, to the extent practicable. However, based on a history of safe use under earlier safety standards, and the absence of unfavorable operational data, NRC will allow the continued use of existing packages in domestic transport until the end of their useful lives. NRC will not allow, however, the continued fabrication of packages to the old designs. This action permits use of existing packages. It does not perpetuate package designs that can be discarded or upgraded to satisfy the new standards."

Further, in the April 30, 2002 (67 FR 21405), proposed rule, NRC wrote "The NRC recognizes that when the

regulations change there is not an immediate need to discontinue use of packages that were approved under previous revisions of the regulations. Part 71 has included provisions that would allow previously-approved designs to be upgraded and to be evaluated to the newer regulatory standards. NRC believes that packages approved under the provisions of the 1967 edition of Safety Series No. 6, and which have not been updated to later editions, may lack safety enhancements which have been included in the packages approved under the provision of the 1973, 1973 (as amended), 1985 and 1985 (as amended 1990) editions of Safety Series No. 6. Therefore, the NRC believes that it is appropriate to begin a phased discontinuance of these earlier packages (1967-approved) to further improve transport safety."

NRC adopted the 1985 IAEA standards on April 1, 1996 (60 FR 50248), which allowed continued use of 1967 packages. In 1996, however, IAEA published new regulations in TS–R–1 which discontinued grandfathering these older designs. NRC agrees with IAEA's position that continuance of these older designs is no longer justified. Therefore, to be compatible with IAEA, NRC will begin a phased discontinuance of the packages approved to Safety Series No. 6, 1967 after adoption of a final rule.

The NRC has justified phasing out these designs based on the following:

Safety standards have been upgraded three times since these designs were initially evaluated and approved. In some cases, the documented safety basis for these designs is substantially incomplete. Although NRC knows of no imminent safety hazards posed by use of these packages, it is judged to be prudent to be consistent with IAEA in phasing out these designs. In addition, the performance of the package in a transportation accident may not be known until a challenging accident occurs.

Opportunity was provided to upgrade these designs to later regulatory standards; however, applicants chose not to provide an application to show that the designs met later safety standards. That opportunity still exists and should be used by package owners that rely on these packages for transporting their products.

Although there is a financial impact for phasing out these designs, it is judged that there will also be a financial benefit to package designers that choose to develop replacement packages that meet current domestic and international safety standards.

Comment. One commenter stated that the proposed rule has no discernible safety benefit to adopting TS–R–1 on this issue. there is no direct economic information on the effect of implementing this proposal, and NRC has requested cost-benefit information from the regulated community.

Response. The NRC does not agree that there is no safety benefit in adopting TS–R–1 provisions on grandfathering. The NRC believes that packages approved to later safety standards (after 1967) may include important safety enhancements. The grandfathering provision allows a 4-year phase out period. Based on this pathway, over the impending 4-year period (after effective date of the final rule), certificate holders can determine which Type B packages they choose to have phased out or reviewed to the current requirements. The commenter accurately notes that NRC has solicited cost information regarding this proposal.

Comment. Three commenters stated that the proposed rule's effort to phase out 1967-specification packages would negatively impact their own business. One commenter argued that phasing out these packages would have such a high cost that it would drive many small nuclear-shipping businesses out of business with no ready successors. Another commenter stated that phasing out these packages would cost about $20–$25 million and could force some entities out of business, which could create an unintended side-effect of orphaning over 1,000 radioactive sources of considerable size. Another commenter discussed his business of designing, manufacturing, servicing, shipping and disposing of devices (principally calibrators and irradiators) that use Type B quantities of Cobalt-60 or Cesium-137 sources, and the process of shipping radioactive sources and how it relates to his business. The commenter discussed the impact of phasing out 1967-specification packages. The commenter argued that phasing out these packages for domestic shipments would impose substantial economic, safety, and environmental costs without any benefits.

Response. The NRC believes that packages approved under the provisions of the 1967 edition of Safety Series No. 6, and which have not been upgraded to later editions, may lack safety enhancements which have been included in packages developed to later standards. NRC is seeking to be compatible with the IAEA on the issue of grandfathering and is not seeking to put shipping companies out of business. Therefore, this final rule will phase out, 4 years after the rule effective date, those packages that have been approved to Safety Series No. 6, 1967. The NRC believes that many of the suggested orphaned sources would qualify as Type A quantities and would not be negatively impacted by the phase out of the 1967-approved packages.

Comment. One commenter opposed NRC's proposal on this issue because it will have detrimental effects on his business. The commenter explained that his company has 1,200 new packages built to the 1967 Safety Series No. 6 specifications that will be used in a contract that runs through 2006. The company estimates that replacing these packages would cost $5,000–$10,000 per package, which overall would devastate the contract and be ruinous to the business. The commenter believes that packages should be removed from service when they no longer meet the safety requirements they were designed to meet or if a new safety issue with the package is identified which would prevent the package from meeting its intended safety function; neither of these conditions have been identified for the package.

Response. With the adoption of the final rule, the opportunity exists to have packages that were built to the 1967 Safety Series No. 6 specifications reevaluated to the current standards. Since August 1986, fabrication of new packages to the old (1967) specifications has not been authorized by NRC. The comment supports NRC's pre-1995 position that, based on satisfactory performance, the 1967-type packages could continue to be used. The new packages suggested in the comment are assumed to have been fabricated in accordance with DOT regulations. However, NRC's and DOT's current position, which is consistent with the IAEA's on grandfathering, is to phase out the packages with these old designs over a 4-year period. This time period will allow certificate holders to determine which packages they will phase out or resubmit to NRC for evaluation to the current standards. Industry needs to be aware of changes or potential changes based on IAEA rules. Note in 1996, IAEA first published that the 1967-approved packages would be eliminated, and 5 years later (*i.e.*, 2001) the international regulations were implemented. Thus, with the 4-year phase out of the 1967-approved packages, industry will have had 12 years (*i.e.*, until 2008) to evaluate their package designs, evaluate those designs that will not meet the new standards, and prepare for the eventual phase out.

Comment. One commenter stated that eliminating 1967-specification packages would cause severe harm. The commenter argued that many businesses would have to requalify, relicense, and rebuild virtually all of their current shipping containers at a very high cost. The commenter noted that the RA did not take these costs into account. The commenter argued that prohibiting the use of 1967-specification packages would create thousands of orphan sources, creating a public health risk, and that these sources could only be moved at very high costs.

Response. The NRC notes that businesses may choose to requalify, relicense, or rebuild their packages. Based on the long history associated with grandfathering various packages, NRC believes that a 4-year time period will allow certificate holders adequate opportunity to make a responsible business decision as to which pathway to proceed—phasing a package design out or resubmitting it for evaluation to the current standards.

Comment. One commenter stated that certain containers excluded by the proposed legislation couldn't be easily replaced because no alternative packaging currently exists at comparable prices. The commenter explained that designing, testing, and licensing a new package is expensive (approximately $500,000) and usually takes over a year to accomplish.

Response. The NRC acknowledges the comment about the cost and time to design a new package. The staff notes that from the time TS–R–1 became effective to the date when NRC's grandfathering phase out becomes effective will have been a significant and sufficient amount of time for designers to learn about the new requirements, and to adopt design and fabrication effort accordingly. As such new and conforming packages would be available for use when needed by shippers.

Comment. One commenter stated that the RA lacks consideration of costs to industry and health and safety benefits of the proposed changes. The commenter believes that there were no arguments to be made and that the only rationale would be harmonization with the IAEA, which is not binding under U.S. law.

Response. The NRC disagrees that the only rationale for this rulemaking is harmonization with the IAEA. NRC continues to believe that harmonizing NRC's and DOT's regulations, when appropriate, will prove beneficial to NRC, industry, and the general public. NRC believes that packages approved to the 1967 standards lack safety enhancements that were included in packages approved to later editions of Safety Series No. 6 (*i.e.*, 1973 and 1985).

Comment. One commenter stated that numerous participants in this market sector are small entities within the meaning of the Regulatory Flexibility Act and would be adversely affected by the proposed rule, and neither agency's draft RA accounts for this fact.

Response. The NRC disagrees with this comment. The Commission certified in Section XI of this notice that this rule will not have a significant economic impact on a substantial number of small entities. This rule affects NRC licensees, including operators of nuclear power plants, who transport or deliver to a carrier for transport, relatively large quantities of radioactive material in a single package. These companies do not generally fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the size standards adopted by the NRC (10 CFR 2.810).

Only one small entity commented on the proposed changes suggesting that small entities would be negatively affected by the rule. Reviewing records of licensed QA programs, NRC found that only 15 of the 127 NRC licensed QA progams were small entities. Furthermore, of these 15 companies, NRC staff expects that only 2 or 3 would be negatively affected by the final rule, given these companies' lines of business and day-to-day operations. Based on this data, it is believed there will not be significant economic impacts for a substantial number of small entities.

Comment. One commenter asked how important this issue is to the future success of small businesses that routinely transport Type B quantities of radioactive materials domestically. The commenter found it difficult to understand why some packages with proven safety records would "unjustly" be phased out for domestic shipments in as little as 2 years after the proposed rule is issued.

Response. To be compatible with the IAEA on grandfathering, NRC has made a decision to phase out those packages that may lack safety enhancements found in other packages. This phase out will impact packages approved to Safety Series No. 6, 1967, and will be completed 4 years after adoption of a final rule. This phase out is consistent with NRC's belief that packages approved to the 1967 edition of Safety Series No. 6 may lack safety enhancements that are included in packages approved to later editions.

Comment. One commenter supported grandfathering casks made for the 1967 standards for domestic shipping and urged NRC to retain the A_2 value for molybdenum-99 and the A_1 and A_2 values for californium-252, also for domestic shipping.

Response. NRC will retain the current A_2 value for molybdenum-99 (7.4E–1 TBq; 2.0E1 Ci) and the A_2 value for californium-252 (0.1 TBq; 2.7 Ci) (*see* Table A–1). The NRC is not adopting the A_1 value for californium-252 because the IAEA is considering changing the value that appears in TS–R–1 back to what presently appears in part 71. For reasons stated in the previous response to comments, NRC will not allow grandfathering of packages certified to the 1967 standard.

Comment. Because IAEA does not necessarily consider the risk-informed, performance-based aspects of regulations that the NRC has developed in the United States, a commenter suggested that the NRC should consider the unique aspects of U.S.-only applications. The commenter also suggested that the package identification number should be revised to the appropriate identification number prefix together with a suffix of "-96" provided that such packages shall be for domestic use only and no additional packages be fabricated.

Response. The NRC does not agree with this suggestion because it would allow continued use of B() packages for domestic use. NRC has determined that only those packages that have enhanced safety features (*i.e.*, post-1967 package designs) will be allowed to be used and manufactured beyond the 4-year phase-out period for all use (domestic and international). When a package design designated as B() (*i.e.*, approved to Safety Series No. 6, 1967) is submitted to NRC for review to the current standards, the NRC may revise the package identification number to designate the package design as a B, BF, B(U), B(M), etc, and may assign the "-96" suffix to indicate that the design has met the requirements of part 71. Those submitted package designs that do not meet the current standard will not be assigned the "-96" suffix.

Comment. One commenter stated that adopting the revised "grandfathering" provision rule would have a significant impact on the commenter's operations. The commenter highlighted how their operational need to store fuel would cause unnecessary handling of fuel, especially in light of design parameters to which their existing containers must adhere. Replacement of certified containers with satisfactory safety records is believed unnecessary by the commenter.

Furthermore, the commenter added that, if adopted, this proposal would eliminate the flexibility to use M–130 containers on an "as needed" basis. The commenter stated that these containers are safe and asked that NRC consider allowing certified containers with satisfactory safety records to continue to be "grandfathered."

Response. The NRC acknowledges the comment but notes that the certificate holder could choose to request a recertification before use beyond the 4-year phase-out period.

Comment. One commenter was concerned that, in departing from IAEA grandfathering standards, NRC is placing the burden entirely on the regulated industry to develop the justification for such a departure. The commenter asserted that this is a problem because there was no basis for having adopted the IAEA grandfathering standards in the first place.

Response. In the interest of maintaining compatibility with the IAEA regarding approved package designs to support the NRC's decision to be consistent with IAEA on the grandfathering issue (*i.e.*, phasing out the Safety Series No. 6, 1967 package designs), and to allow only those package designs with enhanced safety features to continue to be used as viable packages, NRC will phase out the 1967-approved B() packages over a 4-year period after adoption of the final rule. Thus, NRC does not agree with the comment "departing from IAEA grandfathering standards" because NRC is making an effort to adopt the IAEA grandfathering standards. The primary difference between the IAEA and the NRC on this issue, however, is that IAEA has made an immediate phase out of the 1967-approved packages, while NRC will phase out the same packages over a 4-year period.

Comment. One commenter requested specific information on the types and numbers of packages that would be affected and the timetable under which packages would be excluded.

Response. The response to this comment is found at 67 FR 21406; April 30, 2002. NRC does not require certificate holders or licensees to submit information concerning the number of packages made to a particular CoC.

Comment. One commenter stated that a regular 2-year reconsideration of package design regulations will lead to a situation where package designers and users will constantly be trying to keep up with ever-changing regulations.

Response. NRC is aware of this concern and does not anticipate major changes to the IAEA packaging standards every 2 years. Additionally, NRC participates in the 2-year IAEA revision process and will work with the IAEA and other member nations to assure that proposed changes include appropriate justification with respect to cost and safety.

Comment. One commenter disagreed with the proposed grandfathering rule, stating that 1967-specification packages have operated successfully for years and that there is no health or safety reason for phasing them out. The commenter stated that extending the transition period beyond 3 years would delay the negative economic impacts of excluding these packages. The commenter did agree with the stricter standards for new packages in the proposed legislation. The commenter also agreed with the phase out of 1967-specification packages from international sources.

Response. NRC agrees that the 1967-approved packages have appeared to provide adequate performance in the past. However, these packages lack the safety enhancements that other similar packages currently have in place (*i.e.*, post-1967 approved packages). Therefore, NRC believes the time has come to phase out those package designs before a safety issue occurs and to capitalize on those packages that have incorporated the safety enhancements described in the proposed rule (67 FR 21406; April 30, 2002). This phase out of the 1967 approved package designs is consistent with the NRC's decision to be compatible with the IAEA on the grandfathering issue.

Comment. One commenter expressed concern about the backfitting issue and indicated that NRC should demonstrate that the basis for IAEA's position is tenable in the U.S., or develop an independent satisfactory basis for their position. The commenter stated that this is particularly important with regard to grandfathering packages when there may be different environments for international and domestic shipments.

Response. The NRC does not support allowing the continued use of the 1967-approved packages for domestic-use only. The NRC will continue to phase out those package designs that currently meet Safety Series No. 6, 1967, over a 4-year period after adoption of a final rule. This approach is consistent with the NRC's desire to be compatible with the IAEA on the grandfathering issue.

Comment. One commenter said that the proposed 3-year transition period is too long.

Response. NRC has used the 3-year time line in previous rulemakings and believes that this time period adequately supports those steps that could be taken regarding grandfathering. However, NRC has worked with the DOT and determined that a 4-year transition period would allow certificate holders an additional year to determine the most effective pathway for a particular design; namely, phase out old package designs, phase in new package designs, or submit an existing package design for review against the current standard.

Comment. One commenter was concerned that the proposed rule would essentially remove from service any and all containers that could be used to transport isotopes from DOE's Advanced Test Reactor for medical or industrial use.

Response. As with other package designs approved to the 1967 standards, it is expected that certificate holders may request review of these designs to the current regulatory standards.

Comment. Two commenters asserted that there is no safety benefit to phasing out the 1967-specification packages. One of these commenters noted that packages built to the 1967-specifications have an excellent safety record and that NRC and DOT agree that the level of safety of the 1967-specification is satisfactory. The commenter stated that the phase out may be required for international shipping but not for domestic shipping. The other commenter provided information on the high cost of recertification and stated that these costs would likely drive companies out of business.

Response. NRC is aware of the safety record of those packages approved to Safety Series No. 6, 1967. However, NRC has made a decision based on safety to be compatible with the IAEA on the issue of grandfathering previously approved packages. Therefore, NRC will impose a 4-year phase out of those package designs approved to the 1967 standards. While the IAEA has immediately terminated the use of 1967-approved packages, the NRC has elected to terminate their use over a 4-year period after adoption of a final rule. Any package design impacted by the phase out may be submitted to NRC for review against the current standards. While this review may be costly, it ensures package safety during transport and is compatible with the IAEA.

Comment. One commenter asserted that the 1967-specification packages may be impossible to replace at any cost because these devices lack the "QA Paper" required under the NRC's regulations at 10 CFR part 71. The commenter stated that these packages serve unique functions and that phasing them out would leave thousands of Type B sources stranded, and the cost of moving them would be prohibitive. The commenter raised concerns about

exposure to these immovable packages and terrorism threats.

Response. NRC is aware that packages built to the 1967 standards were not subject to QA requirements and that fabrication documents may not be available. This is one reason why the NRC decided to incorporate new standards in NRC regulations and discontinue use of the packages certified to the 1967 standards.

Comment. One commenter said that currently approved DOT specification packages should continue to be approved for domestic shipments. The commenter based this suggestion on the fact that packages that are currently accepted for use and proven to be safe should continue to be used until they reach the end of their useful life. The commenter did not believe that the costs that would be associated with phasing out safely used transportation packages could be justified on the basis of harmonization of regulations with TS–R–1.

Response. NRC has made a decision based on safety to phase out the package designs that do not include the safety enhancements that other packages currently maintain. Thus, the package designs that were approved to Safety Series No. 6, 1967, will be phased out over a 4-year period after adoption of the final rule. This approach is consistent with the NRC decision to eliminate these types of packages for transportation of radioactive materials. The safety enhancements for post-1967 package designs can be found in the proposed rule (67 FR 21406; April 30, 2002).

Comment. One commenter urged the NRC to accept Competent Authority Certificates for foreign-made Type B packages without requiring revalidation by a U.S. Competent Authority. The commenter stated that revalidation of foreign-made packages for which a country has issued a Competent Authority Certificate other than the United States in accordance with TS–R–1 is a redundancy that provides no additional benefit.

Response. General license provisions in part 71 authorized use of foreign-approved designs for import or export shipments provided that DOT has revalidated the certificate. DOT may choose to request NRC technical review of those designs. NRC experience has been that review of those designs has been useful in identifying possible safety issues.

Comment. One commenter stated that there needs to be an effective date applied to some or all of the proposed rule changes to grandfather existing approved transport cask designs. Without that, all part 71 CoC holders will be subject to backfit for compliance with no commensurate safety benefit. The commenter urged NRC to perform a comprehensive evaluation of what impact the proposed changes will have on existing dual-purpose certificate holders if a grandfather clause is not included in the rule.

Response. NRC is committed to working with DOT and the IAEA to assure that future changes in package performance standards are limited to those that are justified and are shown to be significant with respect to safety.

Comment. One commenter urged NRC to provide a flexible CoC design concept, which would permit internal packages whose dimensions and weight fell within defined ranges (rather than being unique), to be linked with one outerpack design of specific dimensions for shipment, thus minimizing the number of separate CoCs to be obtained.

Response. Grandfathering provisions in § 71.13 include certain restrictions with respect to changes to previously approved designs. However, for designs approved under the current regulations, a CoC can be issued to show ranges for dimensions and weights at the request of a certificate holder. The application for such a provision should include an evaluation that shows that the ranges of weights and dimensions would not negatively affect the performance of the package and its ability to meet the requirements of part 71.

Comment. One commenter requested specification of the means by which existing packages that were built before required compliance with NRC QA standards can be qualified under the new regulations, without requiring full, unobtainable "QA Paper" compliance.

Response. Packagings constructed to designs approved under the 1967 regulations were, in general, not subject to QA requirements in part 71. This was a consideration in NRC's decision to discontinue the use of packages certified to the 1967 standards and to remain compatible with IAEA on the grandfathering provisions. QA requirements in subpart H of part 71 include provisions for existing packagings with respect to QA.

Comment. One commenter suggested that NRC change the "timely renewal" principle so as to enable holders of 1967-specification packages that submit substantially complete applications for new or requalified packages at least 1 year ahead of the ultimate phase-out date to continue shipments past the phase-out deadline, pending NRC's action on their request for certification or recertification.

Response. NRC does not agree with this comment or the suggested approach. In 1996, IAEA rules indicated that package designs approved to Safety Series No. 6, 1967, would be eliminated. The NRC is revising its rules to maintain compatibility with these IAEA rules. Therefore, the idea of phasing out these packages has been public knowledge for 7 years. IAEA rules regarding the elimination of the 1967-approved packages were implemented in 2001 (5 years after being published). NRC has posed a phase out of these package designs 4 years after adoption of a final rule (*i.e.*, in 2008). Thus, the overall timeframe already encompasses 12 years, which is more than ample time to submit design upgrades and have them approved by the NRC.

Comment. Two commenters expressed support for the proposed rule on this issue. One commenter encouraged NRC to accept the IAEA transitional requirements including the phase out of Type B specification packages and the termination of authorization of Safety Series 6 (1967) packages. The commenter said that these packages were not designed and constructed according to standards where their continued use would be consistent with the intent of the regulations.

Response. NRC acknowledges these comments. NRC will phase out the packages designed to Safety Series No. 6, 1967, 4 years after adoption of the final rule.

Comment. One commenter expressed support for NRC's proposal to allow continued safe use of existing packaging through incorporation of the TS–R–1 transitional arrangement provisions.

Response. NRC acknowledges this comment.

Comment. One commenter suggested that changes to A_1 and A_2 exemption values were relevant to grandfathering transport casks. The commenter believed that the NRC grandfathering proposal could adversely impact currently certified casks by not guaranteeing that casks certified under previous revisions "will still be usable without modification or analysis in the future."

Response. The A_1 and A_2 values were last changed in part 71 in 1995 (see 60 FR 50248; September 28, 1995) to make the NRC regulations compatible with Safety Series No. 6, 1985. With those changes and the adoption of new LSA definitions came the awareness that a licensee, when using a CoC-controlled transport container, had to apply the new A_1 or A_2 value for a given radionuclide, determine the appropriate LSA limit, yet not exceed the activity

limit for which the transport package was tested, and which was based on the old (pre-September 28, 1995) A values. A very similar scenario also exists regarding the new A_1 and A_2 values and the existing transport containers. In other words, the new A_1 and A_2 values would be used as the limits for a shipment by a licensee, but the transport container's activity limit would still be based on the pre-September 28, 1995, A values. Should a package design be submitted for review to the current part 71, that design would be subject to the current (*i.e.*, TS–R–1) A_1 and A_2 values that are part of this final rule. Thus, while NRC is aware of the commenter's concern, industry has already had to respond to a similar situation after April 1, 1996, when the September 28, 1995, final rule became effective.

Comment. One commenter expressed support for the phase out of the 1967-specification containers for international shipping to comply with IAEA regulations. However, the commenter opposed the phase out for domestic shipping, arguing that as long as these packages are performing their function safely, then there is no benefit to the phase out and extremely high economic costs. The commenter stated that there would be huge environmental costs to the creation of hundreds or thousands of new orphan sources. The commenter stated that there would be large economic costs of these orphan sources because they will have to be kept secure. The commenter noted that no facility in possession of one of these devices will ever be able to terminate its license or perform a close-out radiation survey, and sale or shutdown will be impossible.

Response. The NRC has made a decision to phase out those package designs that have been approved to Safety Series No. 6, 1967, for both domestic and international transport of radioactive material. NRC believes that package designs that include the safety enhancements (*see* 67 FR 21406; April 30, 2002) better suit the goals of the NRC and its desire to ensure safe transport of all radioactive materials. NRC will work closely with those licensees who may have sources that cannot be easily transported as a direct result of this rule to provide a suitable resolution. This could result in economic incentives for package designers to develop new packages to retrieve orphan sources. This could also result in the development and certification of a new generation of Type B packages that could meet current safety standards and fulfill that need for transport of certain radiation sources.

Comment. One commenter discussed the economic impacts of phasing out 1967-specification packages on the entire nuclear waste-shipping industry, estimating the total costs to the sector at over $1 billion. The commenter argued that these estimates refuted the projection in both NRC's and DOT's rulemaking notices, and the NRC's draft RA that did not expect any significant costs to be associated with the implementation of the rule. To arrive at this estimate, the commenter predicted three possible outcomes and discussed these scenarios in the comment letter. In two scenarios, the customers would have to design and construct new containers and ship them at high costs. The commenter discussed these costs in detail. In the third scenario, large amounts of radioactive sources would be orphaned and would remain immovable indefinitely.

Response. Based on the information provided by this commenter and others regarding the costs of replacement packages, the NRC developed an estimated cost of impacts, as previously described. The estimate is based on either showing that the old designs meet current standards or replacing older designs. The NRC does not have sufficient information to substantiate the large costs estimated in this comment, partly because NRC does not collect information regarding the number of individual packagings fabricated to each design. However, based on staff's knowledge, the following financial impacts specified in the comment may not be reasonable:

1. The commenter claims that the cost of design, testing, and licensing of new designs is estimated as $12 to $98 million. Based on the assessment provided, even assuming that about half of the current 1967-based designs do not meet current safety standards and would need to be phased out, the total costs to industry would not approach these values. The derivation of these values cannot be substantiated by information available to the NRC.

2. Cost of construction of new overpacks is stated as $7 to $13 million. These costs do not seem consistent with NRC knowledge of the number of overpack designs currently in use.

3. Loss of existing overpacks and the loss of value of existing devices are estimated from $500 to over $1,000 million. The derivation of this value cannot be substantiated by information available to the NRC.

Comment. One commenter stated that phasing out 1967-specification containers would cause many nuclear-shipping firms to go out of business, which would create thousands of orphan sources that are unshippable and unmovable. The commenter stated that NRC would be responsible for storing and securing these sources indefinitely and protecting worker and public safety. The commenter noted that this could create national security concerns with the potential for theft by terrorists. The commenter stated that as long as these sources are immovable, an entity could not conduct a final radiation survey and terminate its license, forcing the entity to remain indefinitely on NRC or Agreement State rolls.

Response. The commenter provided no justification for the opinion that shipping firms would be forced to go out of business. The NRC believes that if this situation occurs, package designers would be motivated to develop new packages to retrieve orphan sources. This could result in the development and certification of a new generation of Type B packages (that would incorporate the current package standards) that could fulfill that need.

Comment. One commenter stated that new containers would be adequate, if they could be feasibly built. The commenter also stated that the existing containers are adequate. The commenter stated that orphan sources created by "sunset" on use of existing 1967-specification containers decrease protection of public health and safety protection.

Response. Regarding transport of radioactive material, NRC believes that phasing out those package designs approved to Safety Series No. 6, 1967, will assure transport safety due to the fact that the package designs will have enhanced safety features that the 1967-approved packages lack. Furthermore, NRC is aware that packagings built to the 1967 standards were not subject to QA requirements, and that fabrication documents may not be available. NRC does not agree that this fact (lack of QA paperwork) enhances public confidence. Public confidence may be increased by removal of such packages from use in shipping. NRC will work closely with licensees who may have a source that has been impacted by the elimination of its package to ensure that, on a case-by-case basis, a suitable resolution is determined.

Comment. One commenter stated that orphan sources should be considered in risk assessments and in assessing the costs and benefits of the proposed ban on 1967-specification containers. The commenter believes that when these factors are taken into consideration, they argue overwhelmingly against the proposed change.

Response. The comment is acknowledged. The phase out of the Safety Series No. 6, 1967, packages will occur 4 years after adoption of the final rule. Thus, should orphan sources result as consequence of this rule, industry will have a minimum of 4 years to establish a program and a means to eliminate them from its inventory.

Comment. One commenter stated that any modification of current requirements must not operate to prevent a device built to be transported in DOT Specification 20WC containers, and which has integral shielding and housing that is part of its "packaging" for regulatory purposes, from being shippable merely because it was not constructed fully under the part 71 QA rubric. The commenter warns that the device would become, overnight, an "orphan source."

Response. Applicability of NRC QA requirements is specified in subpart H of part 71, including provisions for fabrication of packagings approved for use before January 1, 1979. Substantive technical changes to the QA provisions in part 71 are not being made as part of this rulemaking. Transport of packages that were built for the DOT Specification 20WC overpacks would require that the package, which includes the device within the overpack, be evaluated and certified to the new regulations after the 4-year phase-out period.

Comment. One commenter stated that the U.S. is not bound to IAEA requirements for domestic shipping. The commenter notes that NRC and DOT have already deviated from the IAEA standards on other domestic-only issues.

Response. NRC acknowledges these comments and adds that the NRC has made a decision based on safety considerations not to deviate from the IAEA on the grandfathering issue for packages. Thus, the NRC will move forward to phase out those packages approved to Safety Series No. 6, 1967.

Comment. One commenter stated that both NRC and DOT have misassessed the impact of their proposals on small entities protected by the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* The commenter stated that NRC fails to consider the many small entities that would be adversely impacted by phasing out the 1967-specification packages. The commenter also disagreed with DOT's argument that international uniformity will help small entities by the discarding of dual systems of regulation. The commenter noted that in the U.S., unlike in Europe, many firms do not have to deal with international shipping at all. The commenter disagreed with DOT's argument that the proposed phase-in period of 2 years would provide a smooth transition to the NRC approval process. The commenter believes that the 2-year window was not adequate.

Response. The NRC acknowledges these comments. This commenter was the only small entity that made comments on this issue. Therefore, it is not clear to the NRC that many small entities would be adversely affected by this phase out. Further, NRC has made a decision based on safety considerations not to deviate from the IAEA on the grandfathering issue for packages. The NRC will move forward to phase out those packages over a 4-year period after adoption of the final rule. This time period should allow all businesses to assess their particular packages and either have them phased out or resubmit them to the NRC for review to the current standards. (The NRC staff notes that DOT has also decided to adopt a 4-year transition period for DOT specification packages.)

Comment. One commenter stated that there is no reason to compel removal of properly inspected, properly maintained 1967-specification packages from service for U.S. domestic shipments of special form Type B quantities of radioactive material. The commenter argued that requiring owners and users to inspect and maintain older packages, or to convert to newer packages, would ensure safety. The commenter concurred that it is reasonable to ban further construction of 1967-specification packages.

Response. The packages approved to Safety Series No. 6, 1967, may lack the safety enhancements possessed by post-1967 approved packages. Thus, NRC will phase out these packages over a 4-year period including production of new packages to these old standards. Alternatively, owners and users of older packages have the opportunity to submit an application showing that the design, or a modified design, meets the current regulations. Recertification of these designs then would allow continued fabrication of additional packagings.

Comment. One commenter stated that NRC and DOT should not subscribe to the useful lifetime limitations for shipping packages implicit in the IAEA's intended biennial review of its regulations. The commenter stated that the cost of such forced obsolescence on an ongoing basis would raise the cost of transportation unwarrantedly.

Response. NRC believes that those packages approved to Safety Series No. 6, 1967, do not reflect the current safety standards. Thus, these packages will be eliminated over a 4-year period after adoption of a final rule. NRC does not anticipate that the future biennial changes within IAEA standards will be as significant as the changes found in the 1996 TS–R–1 standards. Therefore, based on the summary of the impact that will occur on various packages (*see* 67 FR 21406; April 30, 2002), NRC will move forward with the elimination of certain packages for radioactive material transport.

Comment. One commenter noted that there is a potential for substantial delay in approving new designs or recertifying existing designs. The commenter stated that any "sunset" deadline on the use of any package design being phased out under this proposal should permit its continued use pending an ultimate decision by the NRC on either recertification of the existing design or approval of a new design, as long as (1) a good-faith, substantially complete application for approval or recertification, as the case may be, has been filed with the NRC at least 12 months before the nominal "sunset date" on use of the existing design; and (2) the application for approval or certification is clearly related in the application to a design which is subject to the "sunset" provision.

Response. The NRC has published guidance for applicants to use regarding package approval. The purpose of the guidance is to document practices used by NRC staff to review applications for package approval. This guidance is available in NUREG–1609, "Standard Review Plan for Transportation Packages for Radioactive Material," and NUREG–1617, "Standard Review Plan for Transportation Packages for Spent Nuclear Fuel." Using this guidance will assist applicants to prepare a suitable application which will facilitate NRC review and ensure that such a review is concluded in a timely fashion. Note that these NUREG documents are available full-text on the NRC Web site (*www.nrc.gov/NRC/NUREGS/indexnum.html*). Regarding the "sunset" issue, note that eliminating the 1967 packages was first published by IAEA in 1996 (*i.e.*, 7 years ago) and that the international regulations were implemented 5 years later in 2001. Industry should be aware of pending changes or possible changes based on IAEA rules. Therefore, including an additional 4-year implementation period (*i.e.*, to 2008 (at least)) makes at least 12 years that industry has had the opportunity to evaluate its package designs, identify designs that may not meet the new standards, and prepare for the eventual phase out. The commenter is essentially requesting another year of

use while the paperwork is in review. NRC does not agree with this approach.

Comment. One commenter asserted that if a specific "sunset" date is chosen, it should be significantly longer than the ones proposed by either NRC or DOT to date. The commenter also requested that NRC and DOT should agree on a common "sunset" date.

Response. The NRC and DOT have adopted a suitable transition date for eliminating packages approved to Safety Series No. 6, 1967. Both agencies believe that a 4-year phase-out period is adequate.

Comment. One commenter urged that the NRC allow for a substantially longer transitional time than now proposed. The commenter argued that the time necessary to design, fabricate, test, and complete NRC's review of a new CoC design would be much greater than the 2-year transition period proposed by DOT. The commenter stated that this would cause a shipping hiatus.

Response. The NRC published the issues paper at 65 FR 44360; July 17, 2000, which indicated the position on the issues associated with compatibility with the IAEA on many different issues, including grandfathering of those packages approved to Safety Series No. 6, 1967 (*see* Issue 8). Thus, as a minimum, industry has been aware of the overall proposed impact of phasing out the 1967-approved packages for quite some time. Both NRC and DOT believe that a 4-year phase out period provides adequate time for industry to phase out old packages, phase in new packages, or demonstrate that current requirements are met. The 4-year phase out will commence with the adoption of the final rule.

Comment. One commenter supported grandfathering casks made for the 1967 standards for domestic shipping and urged NRC to retain the A_2 value for molybdenum-99 and the A_1 and A_2 values for californium-252. The commenter also stated that the package identification number should be revised to the appropriate identification number prefix together with a suffix of "-96" provided that such packages shall be for domestic use only and no additional packages shall be fabricated.

Response. The NRC acknowledges the comments about grandfathering and A_1 and A_2 values for domestic shipping. For the comment about the package identification number, the NRC does not agree with this comment (see earlier response and response below).

Comment. One commenter stated that the unique 1967-packages that cannot be easily replaced should not be replaced. The commenter supported the general concept of phasing out older packages and agreed that use of most 1967-certified packages should be discontinued. The commenter discussed the high costs of requalifying packages as ruinous for some businesses. The commenter argued that this would result in many orphan sources.

Response. The NRC will move forward to phase out the Safety Series No. 6, 1967, packages that may not have the built-in safety enhancements that other (post-1967) packages maintain. The NRC will work in the future on a case-by-case basis with licensees who may have orphaned sources in their inventory as a result of this final rule.

Comment. One commenter stated that if packages can be shown to meet the proposed regulations, the package identification number should be revised to the appropriate identification number prefix together with a suffix of "-96" provided that such packages shall be for domestic use only and no additional packages be fabricated.

Response. The NRC staff disagrees with this comment. Inasmuch as this would allow continued use of B() packages for domestic use, NRC has determined that only those packages that have enhanced safety features (*i.e.*, post-1967 package designs) will be allowed to be used and manufactured beyond the 4-year phase-out period for all use (domestic and international). When a package design is designated as B() (*i.e.*, approved to Safety Series No. 6, 1967) and is submitted to NRC for review to the current standards, the NRC may revise the package identification number to designate the package design as B, B(U), B(M), etc, and may assign the "-96" suffix.

Issue 9. Changes to Various Definitions

Summary of NRC Final Rule. The final rule adopts the TS–R–1 definition of Criticality Safety Index (CSI). NRC believes this provides internal consistency and compatibility with TS–R–1. Additionally, the following definitions have been revised to improve their clarity and maintain consistency with DOT: A_1, A_2, Consignment, LSA–I, LSA–II, LSA–III, and Unirradiated uranium. NRC believes that terms must be clearly defined so that they can be used to accurately communicate requirements to licensees. By modifying existing definitions and adding new definitions, the licensee would benefit through more effective understanding of the requirements of part 71.

Affected Sections. Section 71.4.

Background. The changes implemented by NRC in this rulemaking require changes to various definitions in § 71.4 to provide internal consistency and compatibility with TS–R–1. These terms must be clearly defined so that they can be used to accurately communicate requirements to licensees. By modifying existing definitions and adding new definitions, the licensee benefits from a more effective understanding of the requirements of part 71.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Four commenters generally supported the proposal. One commenter specifically asked that NRC and DOT agree on the definition of "common terms" before issuance of the final rules.

Response. The DOT and the NRC continue to coordinate rulemaking efforts to ensure regulatory consistency.

Comment. One commenter stated that " 'Radioactive materials' and 'contamination' should not be redefined as presented in the draft rule; the new definitions would expand exemptions and the deregulation and recycling of more nuclear materials and wastes." Another commenter expressed concern over the omission of a definition for "contamination." *See* response to comment on non-fixed contamination below.

Response. The comments appear to be addressing a DOT concern, as NRC has not proposed to adopt a definition for "contamination" in this rulemaking. Currently, NRC regulations in § 71.87(i) refer to the contamination levels found in DOT regulations. The NRC notes that contamination levels/concerns are not criteria for packaging approval within part 71. Rather, they are a factor in safe transport of an actual package of radioactive material.

Comment. One commenter stated that the definition of "person" as stated in § 70.4 should be included under § 71.4 so it is clear that entities such as DOE are not a person under proposed § 71.0(e).

Response. The NRC does not agree with this comment. "Person" is defined within each part of Title 10. It is only these entities who would make shipments of radioactive material under part 71. Therefore, the NRC will rely on the existing definitions to support the transportation activities found in part 71.

Comment. Three commenters stated that the definition of LSA–I and LSA–II should agree with the proposed DOT definition. One commenter provided specific information in objection to the proposed definitions of LSA–I and LSA–II.

Response. NRC agrees that the definitions for LSA–I and LSA–II should be consistent between the NRC and DOT regulations. Therefore, NRC modified its regulations appropriately in § 71.4 and changed the definitions for LSA–I and LSA–II to agree with the definitions found in DOT's final rule. Additionally, NRC noted that DOT adopted the TS–R–1 definition for LSA–III material. To maintain consistency between these regulations, NRC also adopted DOT's definition for LSA–III.

Comment. One commenter stated that defining only the containment system is broad enough to include the confinement system, because defining them differently will be confusing.

Response. NRC acknowledges the comment.

Comment. Three commenters were concerned about the omission of a definition for "consignment." One commenter suggested that NRC use the definition provided in the DOT proposed rule.

Response. NRC is adding a definition for "consignment" in § 71.4 that is consistent with DOT.

Comment. Two commenters were concerned about the omission of a definition for "unirradiated uranium."

Response. NRC is adding a definition for "unirradiated uranium" to § 71.4 that is consistent with DOT.

Comment. Two commenters stressed the importance of including the definition of "non-fixed contamination."

Response. NRC disagrees. Section 71.87(i) refers to the nonfixed (removable) contamination regarding the contamination levels found in DOT regulations in 49 CFR 173.443, Table 11. NRC notes that the definition of "nonfixed contamination" has been removed from § 173.403 in DOT's rule. Furthermore, the definition of contamination from TS–R–1, including the definitions for fixed and nonfixed contamination, have also been added to § 173.403 in DOT's proposed rule. Contamination controls are not a function of NRC package approval as much as they are a factor in safe transport of a package. Thus, it is appropriate to define contamination in DOT's regulations, but not in the NRC's.

Comment. One commenter supported the proposed adoption of the specified definitions, and also urged NRC to adopt the TS–R–1 definitions for confinement system, consignment, contamination, fixed contamination, nonfixed contamination, shipment, and transport index. The commenter also stated that NRC defined LSA–I differently from DOT, and that NRC and DOT should ensure compatibility between the rules.

Response. See response to the previous comments in this issue. NRC agrees that the definition of "transport index (TI)" should be consistent between NRC and DOT regulations. Therefore, NRC modified § 71.4 to include a definition for TI that is consistent with DOT. NRC does not agree, however, with the comment to adopt the TS–R–1 definition of TI, as the definition adopted provides more clarity and explanation for the applicability of the TI.

Issue 10. Crush Test for Fissile Material Package Design

Summary of NRC Final Rule. The final rule adopts, in § 71.73, the TS–R–1 requirement for a crush test for fissile material package designs and eliminated the 1000 A_2 criterion, but maintained the current part 71 testing sequence and drop and crush test requirements.

By adopting TS–R–1, the weight and density criteria will apply to fissile uranium material packages, and packages that were previously exempted because of the 1000 A_2 criterion will now require crush testing. Adopting crush test requirements and eliminating the 1000 A_2 criterion is appropriate because not adopting the TS–R–1 requirements would result in an inconsistency between part 71 requirements and TS–R–1, which could affect international shipments, and fissile material package designs would continue to not be evaluated for criticality safety against a potential crush test accident condition.

The NRC did not adopt the TS–R–1 test sequence requirements because no new information existed to address concerns from a previous rulemaking regarding the difference in test requirements between essentially the same IAEA requirements contained in Safety Series No. 6 and part 71. The NRC chose to remain more conservative than the IAEA by requiring both a drop and crush test, rather than one or the other as TS–R–1 would permit.

Affected Sections. Section 71.73.

Background. The crush test requirements in TS–R–1 were broadened to apply to fissile material package designs (regardless of package activity). Previously, IAEA Safety Series No. 6 and part 71 required the crush test for certain Type B packages. This broadened application was created in recognition that the crush environment was a potential accident force that should be protected against for both radiological safety purposes (packages containing more than 1000 A_2 in normal form) and criticality safety purposes (fissile material package design).

Under requirements for packages containing fissile material, TS–R–1, paragraph 682(b), requires tests specified in paragraphs 719–724 followed by whichever of the following is the more limiting:

(1) The drop test onto a bar as specified in paragraph 727(b) and either the crush test as indicated in paragraph 727(c) for packages having a mass not greater than 500 kg (1100 lbs) and an overall density not greater than 1000 kg/m^3 (62.4 lbs/ft^3) based on external dimensions, or the 9-meter (30-ft) drop test as defined in paragraph 727(a) for all other packages; or

(2) The water immersion test as specified in paragraph 729.

Both Safety Series No. 6, paragraph 548, and current § 71.73 require the crush test for packages having a mass not greater than 500 kg (1100 lbs), an overall density not greater than 1000 kg/m^3 (62.4 lbs/ft^3) based on external dimensions, and radioactive contents greater than 1000 A_2 not as special form radioactive material. Under TS–R–1, the criterion for radioactive contents greater than 1000 A_2 was eliminated for packages containing fissile material. The 1000 A_2 criterion still applies to Type B packages and is also applied to the IAEA newly created Type C package category.

Full compliance with TS–R–1 requirements for fissile material would require changes to the hypothetical accident conditions test sequencing of § 71.73 and would require performance of the 9-meter (30-ft) free drop test or the crush test, but not both, as presently required by § 71.73. The TS–R–1 test requirements are essentially the same as those contained in Safety Series No. 6 (1985 edition). NRC addressed the difference between Safety Series No. 6 and § 71.73 in a previous rulemaking and concluded that the two tests evaluate different features of a package, and both tests are necessary to determine whether a package response is within applicable limits (final rule, 60 FR 50248; Sept. 28, 1995).

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter stated that the additional cost of the crush test for fissile material is estimated at about $5,000,000. This cost is to design, certify, and manufacture replacement packages currently in use for the shipment of uranium oxide. The commenter thought that currently three

to five packages are in use that will need to be modified and recertified.

Response. The information provided by the commenter was considered in the development of NRC's rule.

Comment. One commenter recounted how they were almost crushed under "a boulder the width of the highway in the Wyoming Wind River Range some years ago" and stated that "No vehicle or container could have withstood the impact of that boulder's fall from several hundred feet above." The commenter also stated that based on such probable events, crush tests must be mandatory, with the cost borne by licensee or user. The commenter added that the NRC needs to implement more rigorous crush and drop tests than its current standard so that it can ensure container survival in the event of severe accidents. The commenter also recommended that because the TS-R–1 document was not readily available, it was "ingenuous, at best, for the NRC to give the references to the actual testing requirements in terms of TS-R–1 paragraph citations."

Response. The recommendation to implement more rigorous crush and drop tests than the current regulatory standards to ensure container survival for severe accidents is noted, but was not justified, and is outside the scope of the current rulemaking. Further, it should be noted that TS–R–1 is readily available online at: *http://www.pub.iaea.org/MTCD/publications/pdf/Pub1098_scr.pdf.*

Comment: Three commenters advocated more stringent testing procedures. Specifically, one commenter stated support for NRC's effort to adopt crush tests for all fissile material packages regardless of size or activity (while rejecting the IAEA's option of choosing to perform either a drop or a crush test on a container). The commenter also urged the NRC to use a physical (as opposed to a simulating test using computer modeling) crush test with a full-size package to provide a realistic testing environment. The commenter suggested that the NRC's proposal should include all containers, including the DT–22 (which failed the dynamic crush test) and the 9975 container (which failed the 30-foot drop test). Further, it was noted that the redesigned 9975 container has not yet been "crush tested to show the results of high-speed impact against an unyielding surface." For this unit, the commenter urged NRC to require a physical, as opposed to a simulated, crush test with a full-size package to provide a realistic testing environment. The commenter also stated that the NRC needs to require other testing and noted that "neither the DT–22 nor the 9975 have been sufficiently tested against fire." Also, the commenter contended that the current test (*i.e.*, burn at 1475 degrees Fahrenheit for 30 minutes) ignores the fact of "more than 20 materials routinely transported on highways that burn at more than twice this temperature." Two commenters suggested that this heat test be made more stringent and realistic. NRC also needs to test these two containers for "durability to terrorist attack with a variety of weapons, such as mortars or anti-tank missiles, under a variety of conditions." Furthermore, "all Type B containers should be subject to rigorous testing for terrorist resistance."

Another commenter expressed concern that the proposed rule would allow the DP–22 package to be licensed and approved, despite the fact that it does not meet either the drop or crush test requirements.

Another commenter expressed concern that crush testing is not required for packages having a mass greater than 500kg, which includes rail SNF waste packages. The commenter suggested that the NRC "require rail transportation casks be subject to crush testing (scaled up to produce impact energies of the magnitude expected in a railway accident)." The commenter cited a 1995 report entitled "Rail Transportation of Spent Nuclear Fuel—A Risk Review" that argued small packages are shipped in large numbers and "as a result demonstrate a higher possibility of experiencing crush loads than large packages would." In addition, the commenter cited how packages transported by North American rail would have a high probability of experiencing dynamic crushing in an accident.

Response. The comment regarding more rigorous testing for all Type B packages for terrorist resistance is noted. Please refer to the second comment in Section II, under the heading: Terrorism Concerns. The comment regarding stringency of heat tests is noted but is outside the scope of the current rulemaking. With respect to comments regarding the DT–22 and 9975 container, NRC staff is not familiar with these designs as they are used within the DOE program and are authorized under DOE's package approval authority. These containers do not currently have an NRC CoC. The NRC staff also is not familiar with the DP–22 design that the commenter alludes to as it does not currently have an NRC CoC. To receive an NRC CoC, it would have to meet the NRC's testing requirements, including drop and crush test if required.

The comment regarding crush testing for packages greater than 500 kg (1100 lb) is acknowledged. The NRC has already gone beyond the IAEA testing requirements in requiring that all Type B packages subject to the crush test must also be subjected to the free drop test. Extending the crush test to other Type B packages (*i.e.*, those exceeding 500 kg (1100 lbs)) is beyond the scope of the current rulemaking.

Regarding the comment on requiring physical crush testing, rather than simulated tests, and the use of full scale packages for physical testing, the NRC staff believes that the use of computer code analysis of finite element models and the use of scale models for physical testing are valid methods for demonstrating compliance with the NRC's package testing requirements. It should be noted that these methods should be NRC approved.

Comment. Three commenters questioned the requirements for both a drop test and a crush test. One commenter requested that if both a crush test and a drop test are required on packages that meet the requirements for the crush test, the rules should specify that this could be carried out on two different packages. The commenter explained that it does not make sense to require both tests for the same package, because in an accident scenario, a single package would not experience both conditions.

Two commenters stated that packages should either pass a drop test or the crush test, but not both. The first commenter said that the rule should state that separate packages should be used for each test, and that the same package should not be used to pass both tests in sequence. The second commenter said that, "A line for deciding which test a package should undergo could be based on the gross weight of the package."

Response. The current requirements under § 71.73(a) state that: "Evaluation for hypothetical accident conditions is to be based on sequential application of the tests specified in this section, in the order indicated, to determine their cumulative effect on a package or array of packages." However, § 71.73(a) does specifically allow for an undamaged specimen to be used for the immersion test of § 71.73(c)(6). NRC staff is aware that IAEA regulations do not require both the free drop and crush test on a single specimen, but has chosen to remain more conservative in this regard. In the NRC rulemaking for compatibility with IAEA Safety Series No. 6 (September 28, 1995; 60 FR 50248), NRC staff stated the position that: "NRC is requiring both the crush test and drop

test for lightweight packages to ensure that the package response to both crush test and drop forces is within applicable limits." NRC staff is not aware of any new information that would cause NRC to deviate from that position.

NRC staff does not agree with the commenter's assertion that performing a drop and crush test is a double drop test. In the drop test from 9 meters (30 feet), the specimen itself is dropped onto an unyielding surface; in the crush test (if required by both the package weight and density criteria), a 500-kg (1100-lb) weight is dropped from 9 meters (30 feet) onto the specimen. These are two independent tests that may have different outcomes depending on the package and the location where maximum damage is expected to occur for each test.

Comment. Two commenters supported NRC's proposal regarding crush test requirements. One commenter expressed support for the NRC's proposal to accept the part of IAEA's rule change under TS–R–1 which requires a crush test for fissile material packages regardless of size or activity while rejecting the IAEA's option of performing either crush or drop tests of containers.

Response. No response is necessary.

Issue 11. Fissile Material Package Design for Transport by Aircraft

Summary of NRC Final Rule. The final rule adopts TS–R–1, paragraph 680, Criticality evaluation, in a new § 71.55(f) that only applies to fissile material package designs that are intended to be transported aboard aircraft. Section 71.55 specifies the general package requirements for fissile materials, and the existing paragraphs of § 71.55 are unchanged. Among other requirements, TS–R–1, paragraph 680, requires that packages must remain subcritical when subjected to the tests for Type C packages, because:

(1) The NRC has deferred adoption of the Type C packaging tests (*see* Issue 6);

(2) TS–R–1, paragraph 680 requires Type C tests; and

(3) Paragraph 680 applies to more than Type C packages; only the salient text of paragraph 680 was inserted into § 71.55(f) and applies to domestic shipments.

Adopting this change will provide regulatory consistency. Shippers would have been required to meet the TS–R–1 air transport requirements even if the NRC did not adopt them, because the International Civil Aviation Organization had adopted regulations consistent with TS–R–1 on July 1, 2001. U.S. domestic air carriers require compliance with the ICAO regulations even for domestic shipments. Therefore, these changes are expected to benefit industry by eliminating the need for two different package designs.

Affected Sections. Section 71.55.

Background. TS–R–1 introduced new requirements for fissile material package designs that are intended to be transported aboard aircraft. TS–R–1 requires that shipped-by-air fissile material packages with quantities greater than excepted amounts (which would include all NRC-certified fissile packages) be subjected to an additional criticality evaluation.

In TS–R–1, paragraph 680, requirements for packages to be transported by air are in addition to the normal condition and accident tests that the package must already meet. Thus:

Type A fissile package by air must:

(1) Withstand normal conditions of transport with respect to release, shielding, and maintaining subcriticality (single package and 5×N array; [1]

(2) Withstand accident condition tests with respect to maintaining subcriticality single package and 2×N array); and

(3) Comply with TS–R–1, paragraph 680, with respect to maintaining subcriticality (single package);

Type B fissile package by air must:

(1) Withstand normal conditions of transport and Type B tests with respect to release, shielding, and maintaining subcriticality (single package and 5×N array/normal and 2×N array/accident); and

(2) Comply with TS–R–1, paragraph 680, with respect to maintaining subcriticality.

TS–R–1, paragraphs 816 and 817, state that fissile package designs intended to be transported by aircraft are not allowed to be grandfathered. Consequently, all of these fissile package designs will be evaluated before their use.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Four commenters supported the NRC's position on this issue. One commenter supported NRC's proposal to ensure consistent review of package designs affected by the requirements of the International Civil Aviation Organization. Another commenter said adoption of Type C packages should be scheduled for future harmonization with IAEA regulations.

[1] N represents the maximum number of fissile material packages that can be shipped on a single conveyance.

Response. The NRC believes the changes create a uniform regulatory framework for the review of package designs for both national and international air shipments.

B. NRC-Initiated Issues

Issue 12. Special Package Authorizations

Summary of NRC Final Rule. The final rule adopts, in § 71.41, special package authorizations that will apply only in limited circumstances and only to one-time shipments of large components. Special package authorization regulations are necessary because there are no regulatory provisions in part 71 for dealing with nonstandard packages, other than the exemption provisions and § 71.41(c). The NRC processing of one-time exemptions for nonstandard packages, such as the Trojan reactor vessel, has required the expenditure of considerable NRC resources. Further, the NRC's policy is to avoid the use of exemptions for recurring licensing actions. Special package authorization requirements will result in enhanced regulatory efficiency by standardizing the requirements to provide greater regulatory certainty and clarity, and will ensure consistent treatment among licensees requesting authorization for shipment of special packages.

Any special package authorization will be issued on a case-by-case basis, and requires the applicant to demonstrate that the proposed shipment would not endanger life or property nor the common defense and security, following the basic process used by applicants to obtain a CoC for nonspecial packages from NRC.

The applicant will be required to provide reasonable assurance that the special package, considering operational procedures and administrative controls employed during the shipment, would not encounter conditions beyond those for which it had been analyzed and demonstrated to provide protection. The NRC will review applications for special package authorizations. Approval will be based on NRC staff determination that the applicant will meet the requirements of subpart D of 10 CFR part 71. If approved, the NRC will issue a CoC or other approval (*i.e.*, special package authorization letter).

NRC will consult with DOT on making the determinations required to issue an NRC special package authorization.

Affected Sections. Section 71.41.

Background. The basic concept for radioactive material transportation is that radioactive contents are placed in

an authorized container, or packaging, and then shipped. The packaging, together with its contents, is called the package. In general, the transportation regulations in TS–R–1, 10 CFR part 71, and 49 CFR are based on the shipment of radioactive contents in a separate, authorized packaging. There are a few exceptions. In cases involving larger quantities of radioactive material, the content to be shipped may itself be a container. A storage tank containing a radioactive residue is an example. It is not necessary for the shipper to place the tank within an authorized packaging if the shipper demonstrates that the tank satisfies the requirements for the packaging. DOT and NRC have jointly provided guidance on such shipments (*see* "Categorizing and Transporting Low Specific Activity Materials and Surface Contaminated Objects," NUREG–1608, RAMREG–003, July 1998).

As older nuclear facilities are decommissioned, DOT and NRC are being asked to approve the shipment of large components, including reactor vessels and steam generators. These components may contain significant quantities of radioactive material, but they are so large that it may not be practical to fabricate authorized packagings for them. Because the potential shipment of these components was not contemplated when the NRC transportation regulations were developed, the regulations do not specifically address them.

Large components can be shipped under DOT regulations if the components meet the definition of Surface Contaminated Object (SCO) or Low Specific Activity (LSA) material (*see* 49 CFR 173.403 for SCO and LSA definitions). For example, steam generators that meet the DOT SCO definition are exempt from part 71 and are shipped under 49 CFR, following guidance provided in NRC Generic Letter 96–07 dated December 5, 1996. This method has been applied to several shipments of steam generators and small reactor vessels to the low level waste disposal facility at Barnwell, SC. NRC and DOT intend to continue employing this approach and method for steam generators and similar components that can be shipped under DOT regulations.

Large components that exceed the SCO and LSA definitions are subject to part 71. An example is the Trojan reactor vessel which was transported to the disposal facility on the Hanford Nuclear Reservation near Richland, Washington. The Trojan Reactor Pressure Vessel (TRPV) contained approximately 74 PBq (2 million Ci) in the form of activated metal and 5.7 TBq (155 Ci) in the form of internal surface contamination, and was filled with low-density concrete, and weighed approximately 900 metric tons (1,000 tons). Normally, large curie contents are required to be shipped in a Type B packaging, but the TRPV was too large and massive to be shipped within another packaging.

Section 71.8 provides that NRC may grant any exemption from the requirements of the regulations in part 71 that it determines is authorized by law and will not endanger life or property nor the common defense and security.

Currently, no regulatory provisions exist in part 71 for dealing with nonstandard packages, other than the exemption provisions and § 71.41(c). The NRC's practice is to avoid the use of exemptions for recurring licensing actions. The new rule language will support this practice.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter stated that relaxation of requirements applicable to large packages could potentially reduce the cost of these shipments for parties who must routinely demonstrate that all shipments, including reactor vessels and larger reactor compartments, are made in compliance with part 71. However, the commenter asked that the NRC relax the restriction that a special package authorization may be approved only for "one-time shipments" and allow a limited number of shipments to be approved if they are of the same design to avoid repetitious certification requests.

Response. The NRC believes that standardizing the special package authorization process will increase efficiency during the review of large shipment components. These special packages were not provided for specifically in earlier regulations. Establishing a standard process for authorization also will reduce the regulatory burden associated with shipping these packages. The NRC envisions the process for special package authorization to be similar to authorization for Type B packages, with specific criteria for approval judged on a case-by-case basis. The special package authorization is not intended for repeat or routine shipments of components. It is reserved for those unique instances where traditional packaging and approval methods are impractical. Therefore, NRC is not extending special package authorizations to multiple shipments of the same component.

Comment. One commenter opposed NRC's proposal to allow special package exemptions stating that it would not be a responsible action by NRC and could lead to further requests to loosen regulatory restrictions in the future. The commenter cited the precedent of Shippingport, Trojan, and Yankee Rowe as reason for the concern. The commenter further stated that post-September 11, 2001, NRC "should not assume the legality or safety of any exemptions from full packaging container requirements." The commenter added that the TS–R–1, paragraph 312, "is not in the public interest and should be changed" and NRC should not allow this decision to remain with DOT. The commenter stated that NRC itself admits that DOT uses altered definitions to justify transporting special (large) components without the amount of protection demanded of lesser components; this is unacceptable and a failure by NRC to exercise its mandated responsibility. The commenter also requested the NRC to provide a definition of "reasonable assurance."

This commenter further stated that the "shortcoming of dual regulation is evident in the handoff of regulatory control from one agency to another" and added that it is unacceptable "for NRC to wash its hands of its responsibility for packaging and containers by handing over authority to another agency." The commenter then asked if NRC planned this as "merely a cost reduction for licensees," and stated that NRC needed to provide a justification for this proposal. The commenter also questioned the safety of these shipments.

The commenter also stated that the NRC's focus on high-level waste transport would result in the NRC ignoring allowances for exemptions for lower activity materials and wastes. This would result in these materials and wastes passing from a "regulated status to exemption and release into commerce or unregulated 'disposal' and would 'increase risks to the public that NRC ignores.' The commenter ended by stating that this "is not an acceptable deregulation, is a capricious failure to protect the general welfare, and is therefore contrary to law" and reiterated the "objection to NRC's reliance on 'performance-based risk informed' regulation that permits less stringent requirements for containment and for transportation."

Response. The special package authorization does not reduce the protection of public health and safety;

rather, it affects the process used to approve nonstandard packages. The special package authorization requirement clearly states that the overall safety in transport for shipments approved under special package authorization will be *at least* (emphasis added) equivalent to that which would be provided if all applicable requirements had been met. The NRC is not adding a definition for the term "reasonable assurance" because it is not used in a regulatory requirement.

It is important to repeat that NRC approval will be required for special package authorizations. In addition, DOT regulations will be modified to recognize NRC's special package authorizations. The process efficiencies offered by special package authorizations result in more effective and efficient regulation.

The special package authorization will reduce the need for exemptions in the package approval process and will not result in the disposal of radioactive material.

Comment. One commenter stated that the Trojan reactor shipment should not be used as a precedent for special package approval. The commenter reasoned that the Trojan reactor shipment was an easy shipment due to its origin and destination.

Response. The NRC believes the Trojan reactor vessel shipment indicates there is a need for special package approvals because it represents a class of contents that, due to their size, mass, or other unique factors, are impractical to transport within standard radioactive material packaging. The origin and destination of the Trojan shipment has no bearing on this rule.

Comment. One commenter requested more information about how the NRC is going to approve special packages. The commenter stated that a better explanation of this process would aid regulated bodies in acquiring special package authorization.

Another commenter indicated that with the current proposal, "the special package authorization is not bounded and applicants do not have a common basis for preparation of an application" and requested that the NRC staff establish general criteria against which special packages can be evaluated.

One commenter suggested that NRC establish general criteria for the special package authorization process.

One commenter stated that the "special package" designator should be clearly defined in terms of package size or other appropriate feature to ensure that the rule is applied correctly.

Response. The purpose of this change is to establish general criteria for the authorization of special package designs without the need for the licensee to request an exemption from the current regulations. The NRC agrees that additional information on special package approvals is needed. NRC intends to develop regulatory guidance in this area before this rule is implemented. In the interim, any applications for special package approvals will be considered on a case-by-case basis.

Comment. One commenter requested the NRC to view every shipment of a reactor vessel as a significant process requiring National Environmental Policy Act (NEPA) review. The commenter argued that a NEPA process would allow for public input in the process of decommissioning a reactor vessel.

Response. A NEPA review will not be required for the new special package authorizations. Package approvals authorized by our regulations are specifically excluded from the requirement to prepare an EA pursuant to NEPA (§ 51.22(c)(13)). In contrast, an EA for the Trojan reactor vessel was thought to be necessary because the NRC did not rely on specific package approval regulations, but rather relied on an exemption from those requirements.

Comment. One commenter suggested that shipping retired reactor vessels should be a separate issue from the exception process.

Response. The NRC disagrees that reactor vessels should be excluded from special package authorization. The NRC believes reactor vessels are an example of the type of shipment that would benefit from special package authorization, because the authorization would follow a more standardized and efficient design review process. NRC's package design review process has been shown to provide adequate protection of public health and safety.

Comment. One commenter stated that no additional limitations should be applied to the conditions under which one could apply for a package authorization. The commenter noted that the few packages that have been authorized have moved without incident and without undue risk to the public, workers, or the environment.

Response. Comment noted. No response necessary.

Comment. Five commenters supported the proposed provisions in § 71.41(d) for special package authorizations. Two of these commenters stated that this revision provides a consistent approach to dealing with the transport of large pieces of equipment and nonstandard items, and that the revision would improve the safety and cost effectiveness of onsite and offsite transfers of large equipment items. Two other commenters supported corresponding with DOT to eliminate duplicitous exemptions, but urged the NRC to work closely to ensure the clear implementation of this proposal.

Response. No response necessary.

Issue 13. Expansion of Part 71 Quality Assurance (QA) Requirements to Certificate of Compliance (CoC) Holders

Summary of NRC Final Rule. The final rule adds the terms "certificate holder" and "applicant for a CoC" to subpart H, part 71 and adds a new section, § 71.9, on employee protection. Adopting these requirements will ensure that the regulatory scheme of part 71 will remain more consistent with other NRC regulations in that certificate holders and applicants for a CoC will be responsible for the behavior of their contractors and subcontractors.

This expansion is necessary to enhance NRC's ability to enforce nonconformance by the certificate holders and applicants for a CoC. Although CoC's are legally binding documents, certificate holders and/or applicants and their contractors and subcontractors have not clearly been brought into the scope of part 71 requirements. This is because the terms "certificate holder" and "applicant for a certificate of compliance" do not appear in part 71, subpart H; rather, subpart H only mentions "licensee" in these regulations. Consequently, the NRC has not had a clear basis to cite applicants for, and holders of CoC's for violations of part 71 requirements in the same way it has licensees.

The NRC also added a new section (§ 71.9) on employee protection to part 71. The NRC believes that employee protection regulations should be added to cover the employees of certificate holders and applicants for a CoC to provide greater regulatory equivalency between part 71 licensees and certificate holders.

Affected Sections. Sections 71.0, 71.1, 71.6, 71.7, 71.8 , 71.9, 71.91, 71.93, 71.100, and 71.101 through 71.137.

Background. On October 15, 1999 (64 FR 56114), the Commission issued a final rule to expand the QA provisions of part 72, subpart G, to specifically include certificate holders and applicants for a CoC. In a Staff Requirements Memorandum (SRM) to SECY–97–214, the Commission directed the staff to consider whether conforming changes to the QA regulations in part 71 would be necessary because of the existence of dual-purpose cask designs.

The 1999 rule requires that Part 72 licensees, certificate holders, and applicants for a CoC are responsible for assuring that their contractors and subcontractors (*e.g.*, fabricators) are implementing adequate QA programs. Similarly, by this final rule, part 71 licensees, certificate holders, and applicants for a CoC are responsible under § 71.115 for assuring that their contractors and subcontractors (*e.g.*, fabricators) are implementing adequate QA programs.

Under part 71, the NRC reviews and approves applications for Type B and fissile material packages for the transport of radioactive material. The NRC's approval of a package is documented in a CoC. Applicants for a CoC are currently required by § 71.37 to describe their QA program for the design, fabrication, assembly, testing, maintenance, repair, modification, and use of the proposed package. Further, existing § 71.101(a) describes QA requirements that apply to design, purchase, fabrication, handling, shipping, storing, cleaning, assembly, inspection, testing, operation, maintenance, repair, and modification of components of packagings that are important to safety. Type B packages are intended to transport radioactive material that contains quantities of radionuclides greater than the A_1 or A_2 limits for each radionuclide (see Appendix A to part 71 for examples of A_1 or A_2 limits). Fissile material packages are intended to transport fissile material in quantities greater than the part 71, subpart C, general license limits for fissile material (*e.g.*, existing §§ 71.18, 71.20, 71.22, and 71.24).

Although CoCs are legally binding documents, certificate holders or applicants for a CoC and their contractors and subcontractors have not clearly been brought into the scope of part 71 requirements. This is because the terms "certificate holder" and "applicant for a certificate of compliance" do not appear in part 71, subpart H; rather, subpart H only mentions "licensee" in these regulations. Consequently, the NRC has not had a clear basis to cite certificate holders and applicants for a CoC for violations of part 71 requirements in the same way it has licensees.

When the NRC has identified a failure to comply with part 71 QA requirements by certificate holders or applicants for a CoC, it has issued a Notice of Nonconformance (NON) rather than a Notice of Violation (NOV). Although an NON and an NOV appear to be similar, the Commission prefers the issuance of an NOV because:

(1) The issuance of an NOV effectively conveys to both the person violating the requirement and the public that a violation of a legally binding requirement has occurred;

(2) The use of graduated severity levels associated with an NOV allows the NRC to effectively convey to both the person violating the requirement and the public a clearer perspective on the safety and regulatory significance of the violation; and

(3) Violation of a regulation reflects the NRC's conclusion that potential risk to public health and safety could exist. Therefore, the NRC believes that limiting the available enforcement sanctions to administrative actions is insufficient to address the performance problems observed in industry.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Five commenters supported the NRC's proposed position on this issue. One commenter recommended that NRC establish and apply a uniform set of QA requirements. Another commenter added that it would like to see the consistent application of QA requirements throughout the regulations.

Response. Expansion of the QA provisions enhances NRC's ability to enforce noncompliance and will ensure broader, uniform application of QA requirements. However, extension of the requirement beyond part 71 is outside the bounds of this rulemaking.

Issue 14. Adoption of the American Society of Mechanical Engineers (ASME) Code

Summary of NRC Final Rule. The NRC has decided not to incorporate the ASME Code, section III, division 3 requirements into part 71. Public Law 104–113 requires that Federal agencies use consensus standards in lieu of government-unique standards, if this use is practical or inconsistent with other existing laws. Because a major revision to the ASME Code is forthcoming and because the changes in that revision are not yet available for staff and stakeholder review, the NRC staff considered it an imprudent use of NRC and stakeholder resources to initiate rulemaking on the current ASME Code revision only to have the ASME Code requirements change during the part 71 rulemaking.

Affected Sections. None (not adopted).

Background. Currently, no ASME Code requirements exist in part 71 for fabrication/construction of spent fuel transportation packages. The NRC considered the adoption of the ASME Boiler and Pressure Vessel (B&PV) Code, section III, division 3, for two reasons. First, previous NRC inspections at vendor and fabricator shops (for fabrication of spent fuel storage canisters and transportation casks) identified quality control (QC) and QA problems. Some of these problems would have been prevented with improved QA programs, and may have been prevented had fabrication occurred under more prescriptive requirements such as the ASME Code requirements. Second, Public Law 104–113, "National Technology Transfer and Advancement Act," enacted in 1996, requires that Federal agencies use, as appropriate, consensus standards (*e.g.*, the ASME B&PV Code), except when there are justified reasons for not doing so.

With respect to conformance to Public Law 104–113, the ASME issued a consensus standard in May 1997, entitled: "Containment Systems and Transport Packages for Spent Fuel and High Level Radioactive Waste," ASME B&PV Code, section III, division 3. The ASME Code requires the presence of an Authorized Nuclear Inspector during construction to ensure that the ASME Code requirements are met and the stamping of components (*i.e.*, the transportation cask's containment) constructed to the ASME Code. NRC staff participated, and continues to participate, in the ASME subcommittee that developed the ASME Code requirements. It is the NRC staff's understanding, through participation in the subcommittee, that the ASME Code document is undergoing extensive review and modification and that a major revision will be issued. Therefore, NRC staff believes that inclusion of the ASME Code in part 71 is not appropriate at this time.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Four commenters expressed support for the decision not to adopt the ASME code. One commenter said that these are voluntary standards and should not be made into requirements.

Response. No response is required.

Issue 15. Change Authority for Dual-Purpose Package Certificate Holders

Summary of NRC Final Rule. The Commission does not reach a final decision on the issue of change authority for dual-purpose package

certificate holders in this final rule. The NRC has determined that implementation of this change would result in new regulatory burdens and costs which could be significant. The Commission believes it needs further input from stakeholders on the values and impacts of this change before deciding whether to adopt a final rule providing change authority for dual-purpose package certificate holders. The NRC staff plans to conduct public meetings with appropriate stakeholders to develop a final regulatory solution which it will propose to the Commission. At that time, the Commission will either issue a final rule resolving this issue, taking into account the comments received on the proposed rule and in any future public meetings, or will withdraw 10 CFR part 71 subpart I of the proposed rule.

Affected Sections. None.

Background. The Commission approved a final rule to expand the provisions of § 72.48, "Changes, Tests, and Experiments," to include part 72 certificate holders and licensees (64 FR 53582; October 4, 1999). Part 72 certificate holders and licensees are allowed, under § 72.48, to make certain changes to a spent fuel storage cask's design or procedures used with the storage cask and to conduct tests and experiments without prior NRC review and approval. Part 71 does not contain any similar provisions to permit a CoC holder to change the design of a part 71 transportation package, without prior NRC review and approval. The NRC has issued separate CoC's under parts 71 and 72 for dual-purpose spent fuel storage casks and transportation packages. This has created a situation where an entity holding both a part 71 and a part 72 CoC would be allowed under part 72 to make certain changes to the design of a dual-purpose cask (*i.e.*, changes that affected a component or design feature that has a storage function) without obtaining prior NRC approval. However, the entity would not be allowed under part 71 to make changes to the design of this same dual-purpose cask (package) if that component or feature also has a transportation function without obtaining prior NRC approval, even when the same physical component and change are involved (*i.e.*, the change involves a component that has both storage and transportation functions).

NRC staff recognized a need to consider making both part 72 and part 71 more consistent in dealing with design changes of a minor nature. Thus, in SECY–99–054,[2] NRC staff recommended that an authority similar to § 72.48 be created for dual-purpose spent fuel storage casks and transportation packages intended for domestic use only. NRC staff also recommended that this authority be limited to the part 71 CoC holder.

Since the proposed rule was published, the NRC has evaluated comments received from the public and has conducted a detailed analysis of the implementation of the change authority, as proposed. Based on this analysis, the NRC has determined not to finalize subpart I, Type B(DP) Package Approval, as proposed. Instead, the NRC will seek further input on the values and impacts of this change and then decide whether to proceed with a final rule.

Proposed § 71.153 stated that the application for a Type B(DP) package shall include an analysis of potential accidents, package response to these potential accidents, and any consequences to the public. Currently, under part 71, an applicant has to demonstrate, either by test or analysis, that a package design can withstand the cumulative effects of the Hypothetical Accident Conditions of a 30-foot drop test, a 40-inch puncture test, a thermal test, and immersion tests as described in § 71.73 and § 71.61, and meet Subpart E—Package Approval Standards. Applicants are not required to perform an independent analysis of potential transportation accidents specific to that design and plans for use, project package responses to "real world" transportation accidents, or determine the consequences to the public from such accidents.

The NRC reviewed and considered the comments that were received about this proposed change. The new process included the need to establish a design specific accident assessment for the cask design response to potential "real world" transportation accidents. Such an accident analysis has not been required for a transportation cask application before. Which accidents would be appropriate, for which routes, under what conditions, for what duration, and with what combinations of forces and assumptions, all would be questions that would need to be answered by CoC applicants who have not been required to perform such analysis for cask designs applications.

To provide new guidance for the development of an acceptable accident analysis for a transportation cask, the NRC staff would need to perform significant research on what types of accidents would be required to be included. The NRC believes that such an analysis can be performed; however, the NRC does not believe that it had fully considered in the proposed rule the rigor, resources, and time that such a requirement would require. The detailed associated cost estimates had not been included in the RA for this part of the rule change. The RA has been revised, and the costs of implementation for CoC holders could be significantly higher than that reflected in the proposed rulemaking. This additional regulatory burden had not been accurately reflected in the draft RA. The Safety Analysis Report (SAR) for part 71 applications is based, in part, on demonstrating compliance with the Hypothetical Accident Conditions of part 71. Thus, there is not a clear linkage between the SAR and regulatory conditions for making changes to a design without NRC approval, such as a minimal increase in the probability of an accident sequence or the creation of accidents of a different type. Given these revised cost estimates, the NRC is uncertain whether the benefits to be gained from this change outweigh the costs. The NRC intends to explore this issue further before deciding whether to proceed to a final rule.

The proposed § 71.175, "Changes," establishes methods to determine if a proposed change to a Type B(DP) package can be made without prior NRC approval. As stated in a public comment, the language in this section mirrors that in § 72.48. It should be noted that the design and application process under part 72 *does* require that an applicant perform an accident analysis as part of its application for approval, but such a requirement has never been incorporated into part 71 as noted above.

The intent of subpart I was to allow a certificate holder flexibility to make minor changes to the design of the package to be consistent with the change authority provided under § 72.48 for spent fuel storage casks in a cost and time effective manner. The NRC notes that transportation CoCs issued under part 71 do allow for many changes to be made to package designs without NRC approval, provided the changes do not impact upon compliance with part 71 standards. For example, changes in the SAR for a transportation package, in general, do not require NRC approval provided the changes do not affect the conditions listed in the CoC or the ability of the package to meet the requirements of part 71. Additionally,

[2] SECY–99–054; February 22, 1999, "Plans for Final Rule-Revisions to Requirements of 10 CFR parts 50, 52, and 72 Concerning Changes, Tests, and Experiments."

packaging design drawings that are included as conditions in the CoC do not need to specify fabrication details that are not important to safety. In this way, changes may be made to nonsafety features without modifying the drawings and without NRC review and approval. This is in contrast to the approaches for part 72 CoCs. It is therefore important that applications for package approval, including packaging design drawings, are developed to focus on the safety features of the design. The NRC notes that the current regulatory process for evaluating and approving CoC amendments for transportation packaging may be more efficient than developing a new regulatory infrastructure. To aid in receiving high quality transportation applications, the NRC staff is preparing an amended standard format and content regulatory guide.

The NRC has determined that implementation of the proposed change process would result in new regulatory burdens and costs which could be significant. The NRC also recognizes the concerns of public commenters related to the potential benefits of allowing changes to the design of a Type B(DP) package without prior NRC approval. The NRC staff will work with appropriate stakeholders to determine whether a final rule is the preferred method for resolving the need for a change process in part 71 or whether there may be other regulatory solutions that meet this need. The NRC staff will then propose a final regulatory solution to the Commission. The Commission will then determine if subpart I should be issued as a final rule or if other regulatory solutions to this issue obviate the need for going forward with a final rule. If a final rule is not needed, then proposed subpart I will be withdrawn and the comments received on this issue will be addressed at that time.

Issue 16. Fissile Material Exemptions and General License Provisions

Summary of NRC Final Rule. The final rule adopts various revisions to the fissile material exemptions and the general license provisions in part 71 to facilitate effective and efficient regulation of the transport of small quantities of fissile material. The fissile exemptions (§ 71.15) have been revised to include controls on fissile package mass limit combined with package fissile-to-nonfissile mass ratio. The general license for fissile material (§ 71.22) has been revised to consolidate and simplify current fissile general license provisions from §§ 71.18, 71.20, 71.22, and 71.24. Under the final rule, the general license is based on mass-based limits and the CSI. In light of comments and applicable DOT requirements, the final rule removes proposed rule language references to "storage incident to transportation." Also, the exemptions for low level materials in § 71.14 were revised to apply only to nonfissile and fissile-exempt materials.

Affected Sections. Sections 71.4, 71.10, 71.11, 71.18, 71.20, 71.22, 71.24, 71.53, 71.59, and 71.100. (Currently effective § 71.10 was relocated to § 71.14 with additional language. Currently effective §§ 71.18, 71.20, 71.22, 71.24, and 71.53 are replaced by new §§ 71.15 and 71.22.)

Background. The NRC published an emergency final rule amending its regulations on shipments of small quantities of fissile material (62 FR 5907; February 10, 1997). This rule revised the regulations on fissile exemptions in § 71.53 and the fissile general licenses in §§ 71.18 and 71.22. The NRC determined that good cause existed, under section 553(b)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)(B)), to publish this final rule without notice and opportunity for public comment. Further, the NRC also determined that good cause existed, under section 553(d)(3) of the APA (5 U.S.C. 553(d)(3)), to make this final rule immediately effective. Notwithstanding the final status of the rule, the NRC provided for a 30-day public comment period. The NRC subsequently published in the **Federal Register** (64 FR 57769; October 27, 1999) a response to the comments received on the emergency final rule and a request for information on any unintended economic impacts caused by the emergency final rule.

The NRC issued this emergency final rule in response to a regulatory defect in the fissile exemption regulation in § 71.53 which was identified by an NRC licensee. The licensee was evaluating a proposed shipment of a special fissile material and moderator mixture (beryllium oxide mixed with a low concentration of high-enriched uranium). The licensee concluded that while § 71.53 was applicable to the proposed shipment, applying the requirements of § 71.53 could, in certain circumstances, result in an inadequate level of criticality safety (*i.e.*, an accidental nuclear criticality was possible in certain unique circumstances).[3]

The NRC staff confirmed the licensee's analysis that this beryllium oxide and high-enriched uranium mixture created the potential for inadequate criticality safety during transportation. An added factor in the urgency of the situation was that under the NRC regulations in §§ 71.18, 71.20, 71.22, 71.24, and 71.53, these types of fissile material shipments could be made without prior approval of NRC. For many years, NRC allowed these shipments of small quantities of fissile material based on NRC's understanding of the level of risk involved with these shipments, as well as industry's historic transportation practices. This experience base had led NRC (and its predecessor, the Atomic Energy Commission (AEC)) to conclude that shipments made under the fissile exemption provisions of part 71 typically required minimal regulatory oversight (*i.e.*, NRC considered these types of shipments to be inherently safe).[4]

All public comments on the emergency final rule supported the need for limits on special moderators (*i.e.*, moderators with low neutron-absorption properties such as beryllium, graphite, and deuterium). However, the commenters stated that the restrictions were far too limiting (to the point that some inherently safe packages were excluded from the fissile exemption) and could lead to undue cost burdens with no benefit to safety. In addition, the commenters believed that the consignment mass limits set to deter undue accumulation of fissile mass would be extremely costly. Therefore, the commenters recommended that further rulemaking was necessary to resolve these excessive restrictions. Based on the public comments on the emergency final rule, NRC staff contracted with Oak Ridge National Laboratory (ORNL) to review the fissile

[3] For transportation purposes, "nuclear criticality" means a condition in which an uncontrolled, self-sustaining, and neutron-multiplying fission chain reaction occurs. "Nuclear criticality" is generally a concern when sufficient concentrations and masses of fissile material and neutron moderating material exist together in a favorable configuration. Neutron moderating material cannot achieve criticality by itself in any concentration or configuration. However, it can enhance the ability of fissile material to achieve criticality by slowing down neutrons or reflecting neutrons.

[4] The NRC's regulations in part 71 ensure protection of public health and safety by requiring that Type AF, B, or BF packages used for transportation of large quantities of radioactive materials be approved by the NRC. This approval is based upon the NRC's review of applications which contain an evaluation of the package's response to a specific set of rigorous tests to simulate both normal conditions of transport (NCT) and hypothetical accident conditions (HAC). However, certain types of packages are exempted from the testing and NRC prior approval; these are fissile material packages that either contain exempt quantities (§ 71.53), or are shipped under the general license provisions of §§ 71.18, 71.20, 71.22, or 71.24.

material exemptions and general license provisions, study the regulatory and technical bases associated with these regulations, and perform criticality model calculations for different mixtures of fissile materials and moderators. The results of the ORNL study were documented in NUREG/CR–5342,[5] and NRC published a notice of the availability of this document in the **Federal Register** (63 FR 44477; August 19, 1998). The ORNL study confirmed that the emergency final rule was needed to provide safe transportation of packages with special moderators that are shipped under the general license and fissile material exemptions, but the regulations may be excessive for shipments where water moderation is the only concern. The ORNL study recommended that NRC revise part 71.

In the October 27, 1999 (64 FR 57769) final rule, the Commission requested additional information on the cost impact of the emergency final rule from the public, industry, and DOE because the NRC staff was not successful in obtaining this information. Specifically, NRC requested information on the cost of shipments made under the fissile material exemptions and general license provisions of part 71, before the publication of the emergency final rule, and those costs and/or changes in costs resulting from implementation of the emergency rule. One commenter agreed with the NRC approach but stated that, "the limits for those materials containing no special moderators can and should be increased, hopefully back to their pre-emergency rule levels."

As part of NUREG/CR–5342, ORNL performed computer model calculations of k_{eff} (k-effective) for various combinations of fissile material and moderating material, including beryllium, carbon, deuterium, silicon-dioxide, and water, to verify the accuracy of current minimum critical mass values. These minimum critical mass values were then applied to the regulatory structure contained in part 71, and revised mass limits for both the general license and exemption provisions to part 71 were determined. Also, ORNL researched the historical bases for the fissile material exemption and general license regulations in part 71 and discussed the impact of the emergency final rule's restrictions on NRC licensees. ORNL concluded that the restrictions imposed by the emergency final rule were necessary to address concerns relative to uncontrolled accumulation of exempt packages (and thus fissile mass) in a shipment and the potential for inadequate safety margin for exempt packages with large quantities of special moderators.

Based on its new k_{eff} calculations, ORNL suggested that: (1) The mass limits in the general license and exemption provisions could be safely increased and thereby provide greater flexibility to licensees shipping fissile radioactive material; and (2) additional revisions to part 71 were appropriate to provide increased clarification and simplification of the regulations. Copies of NUREG/CR–5342 may be obtained by writing to the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20402–9328. A copy is also available for inspection and copying, for a fee, at the NRC Public Document Room in the NRC Headquarters at One White Flint North, Room O–1F21, 11555 Rockville Pike, Rockville, MD 20852–2738.

The current restrictions on fissile exempt and general license shipments under §§ 71.53, and 71.18 through 71.24, respectively, are burdensome for a large number of shipments that actually contain no special moderating materials (*i.e.*, packages that are shipped with water considered as the potential moderating material). This problem was clearly expressed in public comments on the emergency final rule. Another regulatory problem is that the current fissile exempt and general license provisions are cumbersome and outdated; this was one of the main conclusions of the ORNL study.

The NRC proposed changes (67 FR 21417) were made on the basis of 17 recommendations contained in NUREG/CR–5342. These changes included: (1) Revising § 71.10, "Exemption for low level materials," to exclude fissile material, also redesignate § 71.10 as § 71.14; (2) redesignating § 71.53 as § 71.15, "Exemption from classification as fissile material," and revise the fissile exemptions; (3) consolidation of the existing four general licenses in existing §§ 71.18, 71.20, 71.22, and 71.24 into one general license in new § 71.22, revise the mass limits, and add Type A package, CSI, and QA requirements; and (4) consolidation of the existing general license requirements for plutonium-beryllium sealed sources, which are contained in existing §§ 71.18 and 71.22 into one general license in new § 71.23 and revise the mass limits. Additionally, changes were proposed to be made to § 71.4, "Definitions," and § 71.100, "Criminal penalties."

The NRC also proposed: (1) To adopt the use of the CSI for general licensed fissile packages; and (2) to retain the current per package (CSI) limit of 10, rather than raising the per package limit to 50 (*see* Issue 5). TS–R–1 does not address the issue of fissile general licenses, so no compatibility issues arise with retention of the current NRC per package limit of 10. NRC staff believes that because reduced regulatory oversight is imposed on fissile general license shipments (*e.g.*, the package standards of §§ 71.71 and 71.73, fissile package standards of § 71.55, and fissile array standards of § 71.59 are not imposed for fissile general license shipments), retention of the current per package limit of 10 is appropriate. Furthermore, retention of the current per package limit of 10 would not impose a new burden on licensees; rather, licensees shipping fissile material under the general license provisions of §§ 71.22 and 71.23 would not be permitted to take advantage of the relaxation of the per package CSI limit from 10 to 50 that would be permitted for Types AF and B(F) package shipments.

As a result of stakeholder meetings and public comments, the NRC has incorporated the following changes to the proposed language for §§ 71.15 and 71.22 in the final rule:

(1) Small quantities of fissile materials such as environmental samples shipped for testing are judged to be of sufficient low quantity that, if individually packaged, the risk (probability and consequence) of accumulating the number and type of packages needed to present a potential criticality hazard is judged to be inconsequential. Therefore, a new § 71.15(a) has been added to exempt packages containing 2 grams or less fissile material.

(2) Proposed § 71.15(a) (§ 71.15(b) in the final rule) specifically referred to iron as the nonfissile material for calculating limiting ratio of 200:1. Commenters suggested that this would require a new definition (of iron) and would complicate implementation. There is no technical reason to require that iron be identified as the nonfissile materials to be included with a mass ratio of 200:1. Other nonspecial moderating materials such as stainless steel, concrete, etc., are appropriate. The mass ratio wording has been modified. The modification maintains the need for the mass ratio of 200:1, but the required nonfissile material is required to be a solid. As worded, the nonfissile mass can include the packaging mass. It is judged that sufficient distribution of fissile material in small quantities (*i.e.*, 1 g of fissile material per 200 g of solid nonfissile material) will provide adequate protection against nuclear

[5] NUREG/CR–5342, "Assessment and Recommendations for Fissile-Material Packaging Exemptions and General Licenses Within 10 CFR Part 71," July 1998.

criticality. This specification ensures that large numbers of packages, containing 15 g of fissile material per package, will remain safely subcritical because of the fissile material dilution and density reduction by nonfissile materials which are not special moderators (*e.g.*, beryllium, graphite, etc.). For example, 1 g of optimally moderated uranium-235 in a mixture at about 0.05 g Uranium-235/cm^3 occupies a volume of about 20 cm^3. Two hundred grams of aluminum metal at about 2.7 g of aluminum/cm^3 occupies a volume of about 74 cm^3. As specified, the 15 g of uranium-235 per package will have a diluted volume of about 1,410 cm^3 at a density of about 0.01 g uranium-235/cm^3 and a density reduction by a factor of 5. Though aluminum is a minor absorber of low-energy neutrons, most other common materials of packaging have moderate neutron-absorbing properties that further ensure safely subcritical accumulations of such packages. The increase in the subcritical mass of 620 g of optimally moderated uranium-235, permitted by the reduction of fissile material density, is related to the ratio of the densities to the power of 1.8 (*see* Ref. 1 , pp. 19–22). Given the density reduction of 5 in the above example, the adjusted subcritical mass becomes 11,125 g of uranium-235, requiring in excess of about 741 packages (containing 15 g of uranium-235 per package) to exceed the determined equivalent quantity of material.

(3) Proposed § 71.15(b) (§ 71.15(c) in the final rule), was modified by referring to fissile and nonfissile materials as solid materials instead of using "noncombustible" and "insoluble-in-water." The modification was a pragmatic consideration and was made to avoid reference to the undefined/specified word, "noncombustible," and the phrase, "insoluble-in-water," while addressing the need to avoid fissile and nonfissile liquids/gases that easily could be consolidated or lost (thereby decreasing nuclear criticality safety) in normal and hypothetical accident transportation circumstances. An additional modification, § 71.15(c)(2) in the final rule, also removes the limit of 350 g in a package and instead specifies criteria for commingling of the material such that, within any selected 360 kg of nonfissile solid material, there can be no more than 180 g of fissile material. Thus, a large rail car with a homogenized distribution of fissile material within a nonfissile waste matrix might exceed the 180 g limit but would be effectively mixed at low enough concentration to enable safe shipment.

(4) The basis for § 71.15(c)(1) is that a 2000:1 mass ratio of nonfissile to fissile material is ~60% of the minimum critical fissile material concentration of 1.33 g uranium-235/L in a 1,600 g SiO_2/L matrix. The 60-percent value is judged to be a reasonably conservative decrease in g uranium-235/g nonfissile material (*e.g.*, SiO_2) to accommodate other nonfissile materials. The minimum critical fissile material concentration in SiO_2 was derived from studies to compare "special" and "natural" neutron moderators with fissile materials. In those studies various systems were examined that had different species of fissile material (*i.e.*, uranium-235, uranium-233, or plutonium-239) combined with water and other nonfissile neutron scatterers/moderators (*e.g.*, polyethylene, beryllium, carbon, deuterium, and SiO_2). SiO_2 was selected for consideration in the transport exemptions because it is judged to be the most representative, arbitrary, and nonspecial moderator matrix for commingling with fissile material. SiO_2 has a very low probability for absorbing neutrons and has a large abundance in nature (*i.e.*, 33 weight percent, second only to oxygen at 49 weight percent). An independent study compared the relative importance of other elements to silicon with dilute fissile materials. Except for the category of special moderators (*i.e.*, deuterium, beryllium, and graphite) and pure forms of magnesium (*i.e.*, magnesium carbonate, magnesium fluoride, magnesium oxalate, magnesium oxide, magnesium peroxide, magnesium silicates) and bismuth (*i.e.*, bismuth basic carbonate, bismuth tri-or penta-fluorides, bismuth oxide), silicon or silicon dioxide is the most neutronically reactive diluent for fissile materials. The 1.6–g SiO_2/L is representative of dry bulk mean world soil density.

(5) Section 71.15(d) (§ 71.15(c) in proposed rule) has been revised to reflect "mass of beryllium, graphite, and hydrogenous material enriched in deuterium constitute less than 5 percent of the uranium mass" (less than 0.1 percent of the fissile mass being the proposed phrase). This change was made in response to a comment about the difficulty that shippers would experience based on the proposed rule language. The staff reviewed the 0.1 percent of fissile mass language and determined that limiting the low-neutron-absorbing materials to the proposed ratio would be impractical to implement. The final language reflecting 5 percent of the uranium mass assures subcriticality for all moderators of concern and is less burdensome to measure and implement as a requirement.

(6) Section 71.15(e) (§ 71.15(d) in the proposed rule) states "total plutonium and uranium-233 content not exceeding 0.002 percent of the mass of uranium" while the proposed language stated "does not exceed 0.1 percent of the mass of uranium-235." This change was made in response to a public comment that the proposed rule changes should be consistent with the international regulations. The final language for this section has been revised to be consistent with the 1996 IAEA standards.

(7) Section 71.15(f) (proposed § 71.15(e)) was reworded for clarity but reflects the same requirements and guidance as in the proposed language.

(8) Proposed § 71.22 (e)(5)(iii), Exemption from classification as fissile material, was revised to read " * * * The uranium is of unknown Uranium-235 enrichment or greater than 24 weight percent enrichment; or * * *" The reason for the § 71.22(e)(5)(iii) modification was that enrichments of U–235 greater than 24 weight percent were not accommodated in the proposed text. Because the minimum critical mass transition between 24 and 100 weight percent enrichments of ^{235}U vary slightly, the text was changed to require the use of Table 71–1 values for all enrichments greater than 24 weight percent as well as materials of unknown enrichments. The values in Table 71–1 were developed for 100 weight percent uranium-235 enriched uranium and are conservatively applied down to 24 weight percent uranium-235.

(9) Proposed § 71.22, Table 71–1, was modified in the final rule to replace uranium-235 (Y) with uranium-233 (Y)—change to uranium-233 (Y). The reason is to correct a typographical error in the table.

In the final rule, the NRC has deleted the phrase "or stored incident to transport" from proposed §§ 71.22(d)(3) and 71.23(d)(3). The intent of the storage phrase was to permit segregation of groups of stored packages, consistent with IAEA and DOT requirements, but the NRC staff believes that the proposed text did not accommodate that practice because it did not accommodate storage and segregation of groups of packages. DOT requirements properly restrict accumulation of packages during transport, based on summing the packages' CSI or TI, including during storage incident to transport. In light of the division of regulatory responsibilities explained in the NRC–DOT Memorandum of Understanding (44 FR 38690; July 2, 1979), the NRC

exemptions for carriers-in-transit in § 70.12, and DOT's revision to 49 CFR 173.457 (67 FR 21384), the NRC staff believes that storage in transit provisions as proposed in §§ 71.22(d)(3) and 71.23(d)(3) are unnecessary.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter noted that this is a significant deviation from the TS–R–1 requirement, which now has a 15–g uranium-235 limit as well as a mass consignment limit.

Response. On February 10, 1997 (62 FR 5907), the NRC published a final rule on fissile exemptions. That final rule essentially adopted the 1996 TS–R–1 requirements, including the 15–g per package limit and 400–g consignment mass limit. Both the consignment mass limit (400 g) and the package mass limit (15 g) were used to control package accumulations. In consideration of comments received on the 1997 rule, the NRC has proposed changes to the fissile exemptions; one of the principal concerns with the 1997 rule was the practicability of the 350-g consignment mass limit (see 67 FR 21418; April 30, 2002). The proposed rule suggested a mass ratio system together with the per package limit to eliminate this consignment mass limit. The IAEA is currently considering changes to the current international regulations in the area of the fissile material exemptions.

Comment. Three commenters indicated that this provision would overly complicate the shipping of fissile material and negatively impact intermodal and international shipping. One commenter noted that the three-tiered system would dramatically complicate the shipping of fissile material because the mass ratio requirement makes it difficult to determine how to classify UF_6 into the three tiers. This same commenter stated that companies that ship internationally will have a difficult time complying with the proposed system as well as the international system and suggested that NRC simplify compliance for these companies. The other commenter stated that if NRC's proposal is adopted as written, shippers would need to have detailed information available regarding the materials in each packaging. The commenter reasoned that this approach assumes that the detailed information would be readily available and disseminated to shippers, and further, shippers making international shipments would likely need to meet both NRC's domestic requirements for determining fissile exempt quantities and the international mass consignment limits, thus further complicating the evaluation of criticality controls for a shipment.

Response. The NRC staff believes that the changes are warranted to alleviate the unnecessary regulatory burden created by the 1997 emergency final rule, including the consignment mass limit. The changes implemented by the 1997 rule are essentially the same as TS–R–1. These amendments permit greater flexibility for domestic transport, in consideration of the comments received when the U.S. adopted the TS–R–1 approach in 1997. However, NRC recognizes that international transport will also need to comply with IAEA TS–R–1, and the burden has been unchanged. The IAEA is currently considering changes to the current international regulations in the area of the fissile material exemptions. The NRC staff did review the proposed language for the proposed § 71.15(c) and determined that the 0.1 percent ratio of the mass of beryllium, graphite, and hydrogenous material enriched in deuterium to the total fissile mass was a requirement that was difficult to implement and therefore the language has been changed as noted above in the rule language description.

Comment. Several commenters expressed concern about material definitions, with one commenter noting that the definition of iron is unclear. One commenter requested clarification of what constitutes iron with regard to Tier 1 or fissile exempt quantities and specifically asked if steel is considered iron. Another stated that it is difficult to obtain information on materials to carry out the calculations under the proposed regulations.

Response. Many materials have the neutronic properties that would permit them to be considered as the nonfissile material mass to be mixed with up to 15 g of fissile material in a ratio of 200:1. Iron, generic steels, stainless steels, and concrete are good examples of materials for use. Only lead, beryllium, graphite, and hydrogenous material enriched in deuterium should be excluded as noted in the revised text. The wording has been modified and clarified in the final rule.

Comment. One commenter requested that the NRC explain why NRC proposes changing the total shipment CSI in cases where there is storage incident to transport, effectively doing away with an exclusive use condition. The commenter considered this proposal a significant change in the method of calculating the CSI per consignment and wanted to remind us that the proposed rule maintains segregation and storage requirements.

Response. The "storage incident to transport" language has been deleted. See the comment responses under Issue 5.

Comment. Two commenters said that NRC should clarify how the mass limits for general license packages (found in § 71.22 (a)(3), Tables 71–1 and 71–2) are used for uranium enriched greater than 24 percent. Both commenters stated that highly enriched uranium does not meet the criteria under § 71.22(e)(5). Moreover, if uranium enriched greater than 24 percent cannot be shipped in a DOT 7A, this provision would have significant cost and operational impacts on the DOE.

Response. Uranium enriched to greater than 24 percent can be shipped provided the appropriate X value from Table 71–1 is used in the equation to determine the CSI. The proposed rule had intended § 71.22(e)(3) to guide the reader to using Table 71–1 for uranium-235 enrichments greater than 24 percent. However, the text for § 71.22(e)(5)(iii) has been revised to clarify the use of Table 71–1 for uranium-235 enrichments greater than 24 percent.

Comment. Several commenters discussed the economic impact of the proposed regulation. Two commenters asserted that the regulation will cause an increase in the number of shipments required with an associated increase in costs, with one predicting required transports to increase two-to three-fold. Another warned of significant negative economic consequences if NRC did not retain the current provision for 15 g per package, at least until it is demonstrated unsafe.

Response. These comments appear to be concerned with the rule's restrictions on package accumulation based on CSI due to the "storage incident to transport" language in the proposed rule. The "storage incident to transport" language has been deleted. Also see the response to second comment under Issue 5.

Comment. One commenter stated that "under no circumstances should the NRC issue general licenses for shipments of radioactive materials and wastes (or, for that matter, for other purposes)." The commenter then added that NRC shouldn't allow fissile materials to be exempted from packaging and transportation regulations nor should NRC allow "transport subject to even remotely possible criticality accidents during shipment" under any circumstances. The commenter added that it is "an outrage, furthermore, that the NRC had

approved an "emergency final rule" allowing shipments of fissile materials in 1997 without affording the public full opportunity for comment * * *" The commenter cited NRC's footnote (see 67 FR 21418; April 30, 2002) and stated doubts regarding NRC's process for requiring NRC's approval for "all Type AF, B, or BF packages." The commenter concluded by stating that "NRC approval is virtually guaranteed in almost all cases, whether or not the decision contributes to public health and safety, not to mention the environment."

Response. The NRC staff believes that current regulations and programs for transporting fissile materials, and in particular the general licensing approach in part 71, result in a high degree of safety as evidenced by a long record of safe transport of these materials. The staff believes that a graded series of requirements for hazardous materials, including the fissile exemptions and general licenses, remains appropriate.

Comment. Two commenters expressed concern about the use of the part 110 definitions of "deuterium" and "graphite" in the proposed rule. The commenters suggested that NRC reconsider these definitions because they are inappropriate for the purpose of nuclear criticality safety.

Response. The final rule stipulates that "Lead, beryllium, graphite, and hydrogenous material enriched in deuterium may be present in the package, but must not be included in determining the required mass of solid nonfissile material." Materials enriched in deuterium and graphite are often termed special moderators because their very low neutron absorption properties give rise to special consideration for large systems with low concentration of fissile material and, therefore, warrant consideration in the criticality control approach. In the interests of consistency within NRC regulations, the NRC staff believes that the definitions of graphite and deuterium are sufficient for purposes of defining the materials that cannot be used in the § 71.15 determination.

Comment. One commenter opposed the fissile material exemptions.

Response. No response is necessary.

Comment. Two commenters expressed general support for the fissile material exemptions. One of whom expressed support for the graduated exemptions for fissile material shipments because they would allow increasing quantities in shipments, provided that the packages also contained a corresponding increase in the ratio of non-fissile to fissile material. They also appreciated NRC consolidating four fissile material general licenses into one and consolidating existing general license requirements for PuBe sources into one section and updating the mass limits.

Response. The comments are acknowledged. No further response is necessary.

Comment. Several commenters requested that NRC include and/or improve various definitions in the proposed rule. One commenter stated that improved definitions were necessary to categorize the ratio calculations.

Three commenters added that NRC should not exclude the definition of "shipment" from the rule. Another suggested that the proposed rule was ambiguous as to whether iron in the packaging (*e.g.* internal structure) can be used to meet the 200:1 ratio requirement in the 15-g exception.

Two commenters noted that the proposed rule did not include a definition for "insoluble in water," one of whom stated that the proposed rule fails to clarify the issue in part because of the rulemaking's lack of clarity. This same commenter questioned NRC's decision to omit definitions for "consignment" and "shipment" and urged NRC to adopt the TS–R–1 definition for these terms.

Response. The NRC staff believes the terms "ratio" and "calculations" are sufficiently clear without corresponding definitions. The terms "iron in the packaging" and "insoluble in water" have been deleted from the rule. Because of its bearing upon the fissile exemptions rule, a definition of "consignment" that is consistent with the definition in DOT's corresponding rulemaking has been added to the final rule language. The NRC staff does not believe a definition of the common-usage term shipment is warranted.

Comment. One commenter noted that § 71.15(b) does not identify what standard is to be used in applying either the term "noncombustible" or the term "insoluble-in-water." The commenter stated that if this section is kept as proposed, there is a need to clarify the terms and specify an appropriate standard.

Response. The text from the proposed rule has changed. Rather than clarify the words "noncombustible" and "insoluble-in-water," the new text indicates only the need for the nonfissile material to be a "solid." The NRC believes that new definitions are not necessary.

Comment 13. One commenter requested that NRC delete the proposed exemptions for plutonium-244 in proposed § 71.14(b)(1) because there are no special form plutonium-244 sources available.

Response: Section 71.14(b)(1) was changed to provide clarification and simplification of the language that existed in the current regulation (§ 71.10), while retaining the substance of the exemption. The current § 71.10 (b)(1) exempts shipments that contain no more than a Type A quantity of radioactive material from all of the requirements of part 71, except for §§ 71.5 and 71.88. Similarly, § 71.10(b)(3) exempts domestic shipments that contain less than an aggregate 20 Curies (Ci) of special form americium or plutonium from all of the requirements of part 71, except for §§ 71.5 and 71.88. The current Type A (A_1) limit for plutonium-244 is 8 Ci. The rule raises the A_1 limit for plutonium-244 to 11 Ci—still less than the 20-Ci exemption of the current § 71.10(b)(3). Consequently, for plutonium-244, the two exemption criteria of the current § 71.10(b)(1) and (b)(3) were in conflict. The NRC's proposed rule resolved that conflict. The commenter's proposed solution would retain that conflict. Accordingly, absent a substantive basis for changing the proposed rule, the NRC is retaining the existing 20-Ci exemption for domestic shipments of special form americium or plutonium in § 71.14(b)(1) in this final rule. Furthermore, because the A_1 limits for all other nuclides of plutonium are greater than 20 Ci, only plutonium-244 is mentioned in paragraph (b)(1).

Comment. Two commenters asserted that the regulations are overly complex and inconsistent with international regulations. One commenter agreed with NRC's proposal to change the requirements for fissile material shipments, but did have several objections. The three primary objections were that NRC hadn't adequately defined the terms to categorize the ratio calculations; information on the materials, necessary to perform calculations, is difficult to obtain; and the proposal is overly complex and inconsistent with international regulations. This same commenter stated that the proposed rule does not adequately account for both packages of large volume and packages of small volume. The proposed changes do not provide for the ability to ship large volumes of decommissioning waste in an effective manner and will complicate international trade of fissile exempt materials. Furthermore, the proposed ratio control is inadequate, and NRC should define "insoluble in water." The commenter recommended inclusion of the TS–R–1 provisions for fissile exempt

materials. Lastly, the commenter stated that, while NRC should go forward with the rulemaking, it should work with industry to determine operational limits that will assure that the mass or concentration limit is maintained under accident conditions.

Response. The staff has reviewed the proposed rule language and has determined that section § 71.15(d) was not consistent with the language in TS–R–1 and has been revised. The commenter should note, that the intent for this rule change is to provide greater flexibility in transportation with a concomitant improvement of a shipper's knowledge about the contents of materials in the package. The rule has been revised to address the concerns about shipments of very small quantities of fissile material in small packages and shipment of low concentrations of fissile material where the large volume of the container and mass of nonfissile material might enable one to exceed the fissile limit in the proposed rule. The IAEA is currently considering changes to the current international regulations in the area of the fissile material . . . exemptions. The concept put forward in the current rule is one of those under consideration. The other option proposed to the IAEA to provide safety in the event of uncontrolled accumulation of fissile exempt packages is to implement a CSI for all packages containing fissile material. The NRC considered both options and chose to implement the option that did not require a CSI on fissile exempt packages.

Comment. One commenter expressed concern that NRC's proposal to add atomic ratio criteria to the previously used 15-g ^{235}U mass criterion may restrict exemption of fissile materials, not containing special moderators, that are currently acceptable. Another commenter expressed support for the concept of exemptions for fissile material shipments under specific conditions. However, the commenter said that NRC's proposal in § 71.15 was overly conservative and resulted in a reduction in the limits of fissile material content without justification.

Response. The NRC staff agrees, in part, with these comments. Proposed § 71.15(c)(1) has been modified by removing the limit of 350 g in a package and instead specifies criteria for commingling of the material such that, within any selected 360 kg of nonfissile solid material, there can be no more than 180 g of fissile material. Thus, a large rail car with a homogenized distribution of fissile material within a nonfissile waste matrix might exceed the 180-g limit but would be effectively mixed at low enough concentration to enable safe shipment. In the case of small sample shipments, a limit of 2 g per package has been added to § 71.15(a) and applies without regard to any mass ratios.

Comment. One commenter stated that the proposed fissile material exemptions do not agree with the TS–R–1 exemptions and appear to contain requirements that are not necessary for nuclear criticality safety. This commenter also expressed concern about the discontinuance of the exemption for material containing less than 5 grams of uranium-235 per 10-liter volume and its impact on shipments related to decommissioning activities. The commenter also voiced support for the proposed new limit of 350 g of fissile material with a 2000:1 ratio to noncombustible and insoluble-in-water material.

Response. The NRC staff acknowledges the comment of support for one of the proposed changes. Regarding the comment about the exemption discontinuance, the commenter did not provide any detailed justification for this concern; thus, no change has been made to the rule language. As stated above, the NRC has determined for a number of issues that it does not harmonize completely with all changes made in the IAEA guidance documents based on safety and other technical reasons.

Issue 17. Decision on Petition for Rulemaking on Double Containment of Plutonium (PRM–71–12)

Summary of Decision on PRM–71–12. Currently in 10 CFR 71.63(b), plutonium in excess of 0.74 TBq (20 Ci) must be packaged in a separate inner container placed within an outer packaging. This is referred to as double containment. It is the combination of the inner container and the outer packaging that is subjected to the normal conditions of transport (§ 71.71) and the hypothetical accident conditions (§ 71.73). Upon application of the normal conditions of transport and hypothetical accident conditions, the acceptance criteria for shielding, containment, and sub-criticality in § 71.51 must be also met for the total package (inner container and outer packaging), but the containment dispersal acceptance (10^{-6} A_2/hour or 1 A_2/week) are applied to each boundary (*i.e.*, the inner container and the outer packaging). Note however, as a point of clarification, double containment does not mean two Type B containers nested into one.

The final rule grants the petitioner's request to remove the double containment requirement of § 71.63(b). However, the requirement of § 71.63(a) that shipments whose contents contain greater than 0.74 TBq (20 Ci) of plutonium must be made with the contents in solid form is retained. Thus, the petitioner's alternative proposal is denied. This completes action on PRM–71–12.

The NRC has decided to remove the double containment requirement because this regulation is neither risk-informed nor performance-based. There are many nuclides with A_2 values the same or lower than plutonium's for which double containment has never been required. Thus, requiring double containment for plutonium alone is not consistent with the relative hazard rankings in Table A–1. The Type B packaging standards, which the outer containment of plutonium shipments must meet, in and of themselves, provide reasonable assurance that public health and safety and the environment are protected during the transportation of radioactive material. This position is supported by an excellent safety record in which no fatalities or injuries have been attributed to material transported in a Type B package. The imposition of an additional packaging requirement (in the form of a separate inner container) is fundamentally inconsistent with this position and is technically unnecessary to assure safe transport. Further, removal of this requirement will reduce an unnecessary regulatory burden on licensees, will likely result in reduced risk to radiation workers, and will serve to harmonize part 71 with TS–R–1.

On the other hand, the imposition of the requirement that plutonium in excess of 0.74 TBq (20 Ci) per package be shipped as a solid does not create a regulatory inconsistency with the Type B package standards. The NRC considers the contents of a package when it is evaluating the adequacy of a packaging's design. The approved content limits and the approved packaging design together define the CoC for a package. However, other than criticality controls and the solid form requirement of § 71.63(a), subparts E and F do not contain any restrictions on the contents of a package. Thus, while the inner containment requirement in § 71.63(b) can be seen as conflicting with the Type B package standard because the inner containment affects the packaging design, the solid form requirement of § 71.63(a) does not conflict with the packaging requirements of the Type B package standard because the solid form requirement affects only the contents of the package, not the packaging itself.

Affected Sections. Section 71.63.

Discussion of PRM–71–12: The NRC received a petition for rulemaking from International Energy Consultants, Inc. (IEC), dated September 25, 1997. The petition was docketed as PRM–71–12 and was published for public comment (63 FR 8362; February 19, 1998). Based on a request from General Atomic, the comment period was extended to July 31, 1998 (*see* 63 FR 34335; June 24, 1998). Nine public comments were received on the petition. Four commenters supported the petition, and five commenters opposed the petition.

The petitioner requested that § 71.63(b) be removed. The petitioner argued that the double containment provisions of § 71.63(b) cannot be supported technically or logically. The petitioner stated that based on the "Q-system for the Calculation of A_1 and A_2 Values," an A_2 quantity of any radionuclide has the same potential for damaging the environment and the human species as an A_2 quantity of any other radionuclide.

The NRC believes that the Q-values are based upon radiological exposure hazard models which calculate the allowable quantity limit (the A_1 or A_2 value) necessary to produce a known exposure (*i.e.*, one A_2 of plutonium-239 or one A_2 of cobalt-60 will both yield the same radiation dose under the Q-system models, even though the A_2 values for these nuclides are different (*e.g.*, one A_2 of plutonium-239 = 2×10^{-4} TBq, and one A_2 of cobalt-60 = 1 TBq). The Q-system models take into account the exposure pathways of the various radionuclides, typical chemical forms of the radionuclide, methods for uptake into the body, methods for removal from the body, the type of radiation the radionuclide emits, and the bodily organs the radionuclide preferentially affects. The specific A_1 and A_2 values for each nuclide are developed using radiation dosimetry approaches recommended by the World Health Organization and the ICRP. The models are periodically reviewed by international health physics experts (including representatives from the United States), and the A_1 and A_2 values are updated during the IAEA revision process, based upon the best available data. (Note that changes to the A_1 and A_2 values as a result of changes to the models in TS–R–1 are also discussed in Issue 3 of this rule.) These values are then issued by the IAEA in safety standards such as TS–R–1. When the IAEA has revised the A_1 and A_2 values in previous revisions of its transport regulations, these revised values have been adopted by the NRC and DOT into the transportation regulations in 10 CFR part 71 and 49 CFR part 173, respectively.

NRC's review of the current A_1 and A_2 values in Appendix A to part 71, Table A–1, reveals that 5 radionuclides have an A_2 value lower than plutonium (*i.e.*, plutonium-239), and 11 radionuclides have an A_2 value that is equal to plutonium-239. Because the models used to determine the A_1 and A_2 values all result in the same radiation exposure (*i.e.*, hazard), a smaller A_1 and A_2 value for one radionuclide would indicate a greater potential hazard to humans than a radionuclide with a larger A_1 and A_2 value. Thus, overall, Table A–1 can also be viewed as a relative hazard ranking (for transportation purposes) of the listed radionuclides. In that light, requiring double containment for plutonium alone is not consistent with the relative hazard rankings in Table A–1.

The petitioner also argued that the Type B package requirements should be applied consistently for any radionuclide, whenever a package's contents exceed an A_2 limit. However, part 71 is not consistent by imposing the double containment requirement for plutonium. The petitioner believes that if Type B package standards are sufficient for a quantity of a particular radionuclide which exceeds the A_2 limit, then Type B package standards should also be sufficient for any other radionuclide which also exceeds the A_2 limit. The petitioner stated that:

While, for the most part, part 71 regulations embrace this simple logical congruence, the congruence fails under 10 CFR 71.63(b) wherein packages containing plutonium must include a separate inner container for quantities of plutonium having a radioactivity exceeding 20 curies (0.74 TBq) (with certain exceptions).

The petitioner further stated that:

If the NRC allows this failure of congruence to persist, the regulations will be vulnerable to the following challenges: (1) The logical foundation of the adequacy of A_2 values as a proper measure of the potential for damaging the environment and the human species, as set forth under the Q-System, is compromised; (2) the absence of a limit for every other radionuclide which, if exceeded, would require a separate inner container, is an inherently inconsistent safety practice; and (3) the performance requirements for Type B packages, as called for by 10 CFR part 71, establish containment conditions under different levels of package trauma. The satisfaction of these Type B package standards should be a matter of proper design work by the package designer and proper evaluation of the design through regulatory review. The imposition of any specific package design feature such as that contained in 10 CFR 71.63(b) is gratuitous. The regulations are not formulated as package design specifications, nor should they be.

The NRC agrees that the part 71 regulations are not formulated as package design specifications; rather, the part 71 regulations establish performance standards for a package's design. The NRC reviews the application to evaluate whether the package's design meets the performance requirements of part 71. Consequently, the NRC can then conclude that the design of the package provides reasonable assurance that public health and safety and the environment are adequately protected.

The petitioner also believes that the continuing presence of § 71.63(b) engenders excessively high costs in the transport of some radioactive materials without a clearly measurable net safety benefit. The petitioner stated that this is so, in part, because the ultimate release limits allowed under part 71 package performance requirements are identical with or without a "separate inner container," and because the presence of a "separate inner container" promotes additional exposures to radiation through the additional handling required for the "separate inner container." Consequently, the petitioner asserted that the presence or absence of a separate inner container barrier does not affect the standard to which the outer container barrier must perform in protecting public health and safety and the environment. Therefore, the petitioner concluded that given that the outer containment barrier provides an acceptable level of safety, the separate inner container is superfluous and results in unnecessary cost and radiation exposure. According to the petitioner, these unnecessary costs involve both the design, review, and fabrication of a package, as well as the costs of transporting the package. And the unnecessary radiation exposure involves workers having to handle (*i.e.*, seal, inspect, or move) the "separate inner container."

As an alternative to the primary petition, the petitioner believes that an option to eliminate both § 71.63(a) and (b) should also be considered. Section 71.63(a) requires that plutonium in quantities greater than 0.74 TBq (20 Ci) be shipped in solid form. This option would have the effect of removing § 71.63 entirely. The petitioner believes that the arguments set forth to support the elimination of § 71.63(b) also support the elimination of § 71.63(a).

The petitioner did not provide a separate regulatory or cost analysis supporting the request to remove § 71.63(a).

History of the Double Containment Requirement: On June 17, 1974 (39 FR 20960), the AEC issued a final rule which imposed special requirements on the shipment of plutonium. These requirements are located in § 71.63 and apply to shipments of radioactive material containing quantities of plutonium in excess of 0.74 TBq (20 curies). Section 71.63 contains two principal requirements. First, the plutonium contents of the package must be in solid form [§ 71.63(a)]. Second, the packaging containing the plutonium must provide a separate inner containment (*i.e.*, the "double containment" requirement) [§ 71.63(h)]. In addition, the AEC specifically excluded from the double containment requirement of § 71.63(b) plutonium in the form of reactor fuel elements, metal or metal alloys, and other plutonium-bearing solids that the Commission (AEC or NRC) may determine, on a case-by-case basis, do not require double containment. This regulation remained essentially unchanged from 1974 until 1998, when vitrified high-level waste in sealed canisters was added to the list of exempt forms of plutonium in § 71.63(b) (63 FR 32600; June 15, 1998). The double containment requirement is in addition to the existing 10 CFR part 71 subparts E and F requirements imposed on Type B packagings (*e.g.*, the normal conditions of transport and hypothetical accident conditions of §§ 71.71 and 71.73, respectively, and the fissile package requirements of §§ 71.55 and 71.59). Part 71 does not impose a double containment requirement for any radionuclide other than plutonium. Additionally, IAEA standard TS–R–1 does not provide for a double containment requirement (in lieu of the single containment Type B package standards) for any radionuclide.

The AEC issued this regulation at a time when AEC staff anticipated widespread reprocessing of commercial spent fuel, and existing shipments of plutonium were made in the form of liquid plutonium nitrate. Because of physical changes to the plutonium that was expected to be reprocessed (*i.e.*, higher levels of burnup in commercial reactors for spent fuel, which would then be reprocessed), and regulatory concerns with the possibility of package leakage, the AEC issued a regulation that imposed the double containment requirement when the package contained more than 0.74 TBq (20 Ci) of plutonium. This double containment was in addition to the existing Type B package standards on packages intended for the shipment of greater than an A_1 or A_2 quantity of plutonium.

The NRC staff has reviewed the available regulatory history for § 71.63, and has provided a recapitulation of the supporting information which led to the issuance of this regulation. The NRC staff has extracted the following information from several SECY papers the AEC staff submitted to the Commission on this regulation. The NRC staff believes this information is relevant and will provide stakeholders with perspective in understanding the bases for this regulation, and thereby assist stakeholders in evaluating the staff's proposed changes to this regulation.

In SECY–R–702,[6] the AEC staff identified two considerations that were the genesis of the rulemaking that led to § 71.63. AEC staff stated:

First, increasingly larger quantities of plutonium will be recovered from power reactor spent fuel. Second, the specific activity of the plutonium will increase with higher reactor fuel burnup resulting in greater pressure generation potential from plutonium nitrate solutions in shipping containers, greater heat generation, and higher gamma and neutron radiation levels. These changes will make the present nitrate packages obsolete. Thus, from both safety and economic considerations, the transportation of plutonium as [liquid] nitrate will soon require substantial redesign of packages to handle larger quantities as well as to deal with the higher levels of gas evolution (pressurization), heat generation, and gamma and neutron radiation.

There is little doubt that larger plutonium nitrate packages could be designed to meet regulatory standards. The increased potential for human error and the consequences of such error in the shipment of plutonium nitrate are not so easily controlled by regulation. Even though such packages may be adequately designed, their loading and closure requires high operation performance by personnel on a continuing basis. As the number of packages to be shipped increases, the probability of leakage through improperly assembled and closed packages also increases. * * * More refined or stringent regulatory requirements, such as double containment, would not sufficiently lessen this concern because of the necessary dependence on people to affect engineered safeguards.

[6] SECY–R–702, "Consideration of Form for Shipping Plutonium," June 1, 1973.

In SECY–R–74–5,[7] AEC staff summarized the factors relevant to consideration of a proposed rule following a June 14, 1973, meeting to discuss SECY–R–702, between the Regulatory and General Manager's staffs (*i.e.*, the rulemaking and operational sides of the AEC). The AEC stated:

As a result of this meeting (on June 14, 1973), the (Regulatory and General Manager's) staffs have agreed that the basic factors pertinent to the consideration of form for shipment of plutonium are:

1. The experience with shipping plutonium as an aqueous nitrate solution in packages meeting current regulatory criteria has been satisfactory to date.

2. The changing characteristic of plutonium recovered from power reactors will make the existing packaging obsolete for plutonium nitrate solutions and possibly for solid form. Economic factors will probably dictate considerably larger shipments (and larger packages) than currently used.

3. It is expected that packages can be designed to meet regulatory standards for either aqueous solutions or solid plutonium compounds. Just as in any situation involving the packaging of radioactive materials, a high level of human performance is necessary to assure against leakage caused by human error in packaging. As the number of plutonium shipments increases, as it will, and packages become larger and more complex in design, the probability of such human error increases.

4. The probability of human error with the packaging for liquid, anticipated to be more complex in design, is probably greater than with the packaging for solid. Furthermore, should a human error occur in package preparation or closure, the probability of liquid escaping from the improperly prepared package is greater than for most solids and particularly for solid plutonium materials expected to be shipped.

5. Staff studies reported in SECY–R–62 and SECY–R–509[8] conclude that the consequences of release of solid or aqueous solutions do not differ appreciably. Therefore, this paper (SECY–R–702) does not deal with the consequences of releases.

[7] SECY–R–74–5, "Consideration of Form for Shipping Plutonium," dated July 6, 1973.

[8] SECY–R–62, "Shipment of Plutonium," and SECY–R–509, "Plutonium Handling and Storage," dated October 16, 1970. These papers concluded that there is no scientific or technical reason to prohibit shipment of plutonium nitrate and recommended that Commission (AEC) efforts be directed toward providing improved safety criteria for shipping containers.

6. It is, therefore, concluded that safety would be enhanced if plutonium were shipped as a solid rather than in solution.

The arguments for requiring a solid form of plutonium for shipment are largely subjective, in that there is no hard evidence on which to base statistical probabilities or to assess quantitatively the incremental increase in safety which is expected. The discussion in the regulatory paper, SECY–R–702, is not intended to be a technical argument which incontrovertibly leads to a conclusion. It is, rather, a presentation of the rationale which has led the Regulatory staff to its conclusion that a possible problem may develop and that the proposed action is a step towards increased assurance against the problem developing. In SECY–R–74–172,[9] AEC staff submitted a final rule to the Commission for approval.

The proposed rule had contained a requirement that the plutonium be contained in a special form capsule. However, in response to comments from the AEC General Manager, the final rule changed this requirement to a separate inner container (*i.e.*, the double containment requirement). The AEC staff indicated in a response to a public comment in Enclosure B (to SECY–R–74–172) that "[t]he need for the inner containment is based on the desire to provide a substitute for not requiring the plutonium to be in a 'nonrespirable' form."

The regulatory history of § 71.63 indicates that the AEC's decision to require a separate inner container for shipments of plutonium in excess of 0.74 TBq (20 Ci) was based on existing policy and regulatory concerns (*i.e.*, "that a possible problem may develop and that the proposed action [in SECY–R–702] is a step towards increased assurance against the problem developing"). Because of the expectation of a significant increase in the number of liquid plutonium nitrate shipments, the AEC used a defense-in-depth philosophy (*i.e.*, the double containment and solid form requirements), to ensure that respirable plutonium would not be released to the environment during a transportation accident. However, the regulatory history does indicate that the AEC's concerns did not involve the adequacy of existing liquid plutonium nitrate packages. Rather, the AEC's regulatory concern was on the increased possibility of human error combined with an expected increase in the number of shipments that would yield an increased probability of leakage during shipment. The AEC's policy concern was based on an economic decision on whether the AEC should require the reprocessing industry to build new, larger liquid plutonium-nitrate shipping containers, capable of handling higher burnup reactor spent fuel, or to build new, dry, powdered plutonium-dioxide shipping containers. The regulatory history indicates that the AEC staff judged that new, larger, higher burnup-capacity liquid plutonium-nitrate packages could be designed, approved, built, and safely used. However, one of the AEC's principal underlying assumptions for this rule was obviated in 1979 when the Carter administration decided that reprocessing of civilian spent fuel and reuse of plutonium was not desirable. Consequently, the expected plutonium reprocessing economy and widespread shipments of liquid plutonium nitrate within the U.S. never materialized.

On June 15, 1998 (63 FR 32600), in response to a petition for rulemaking submitted by DOE (PRM–71–11) (February 18, 1994; 59 FR 8143), the Commission issued a final rule revising § 71.63(b) to add vitrified high-level waste (HLW) contained in a sealed canister to the list of forms of plutonium exempt from the double containment requirement (June 15, 1998; 63 FR 32600). In its original response to PRM–71–11, NRC proposed in SECY–96–215 [10] to make a "determination" under § 71.63(b)(3) that vitrified HLW contained in a sealed canister did not require double containment. However, the Commission in an SRM on SECY–96–215, dated October 31, 1996, disapproved the staff's approach and directed that resolution of this petition be addressed through rulemaking (the June 15, 1998, final rule was the culmination of this effort). In addition to disapproving the use of a "determination" process, the Commission also directed the staff to "* * * also address whether the technical basis for 10 CFR 71.63 remains valid, or whether a revision or elimination of portions of 10 CFR 71.63 is needed to provide flexibility for current and future technologies." In SECY–97–218,[11] NRC responded to the SRM's direction and stated "[t]he technical basis remains valid and the provisions provide adequate flexibility for current and future technologies."

Summary of Comments Received on the Petition (PRM–71–12): Nine public comments were received on the petition (petition was published for public comment in 63 FR 8362; February 19, 1998). Four commenters supported the petition, and five commenters opposed the petition. The four commenters supporting the petition essentially stated that the IAEA's Q-system accurately reflects the dangers of radionuclides, including plutonium, and that elimination of § 71.63(a) and (b) would make the regulations more performance based, reduce costs and personnel exposures, and be consistent with the IAEA standards.

The five commenters opposing the petition essentially stated that: (1) Plutonium is very dangerous, especially in liquid form, and therefore additional regulatory requirements are warranted; (2) existing regulations are not overly burdensome, especially in light of the total expected transportation cost; (3) TRUPACT–II packages meet current § 71.63(b) requirements (TRUPACT–II is a package developed by DOE to transport transuranic wastes (including plutonium) to the Waste Isolation Pilot Plant (WIPP) and has been issued a part 71 CoC, No. 9218); (4) a commenter (the Western Governors' Association) has worked for over 10 years to ensure a safe transportation system for WIPP, including educating the public about the TRUPACT–II package; (5) any change now would erode public confidence and be detrimental to the entire transportation system for WIPP shipments; and (6) additional personnel exposure due to double containment is insignificant.

Analysis of Public Comments on the Issues Paper: The NRC has received 48 public comments on this issue in response to the issue paper, in subsequent public meetings, and the workshop (the issues paper was published at 65 FR 44360; July 17, 2000). Industry representatives and some members of the public support the petition. Public interest organizations, Agreement States and State representatives, and the Western Governors' Association, and other members of the public oppose the petition. Several commenters expressed their belief that Congress, in approving the Waste Isolation Pilot Plant Land Withdrawal Act (the Act), Pub. L. 102–579 (106 Stat. 4777), section 16(a), which mandates that the NRC certify the design of packages used to transport transuranic waste to WIPP, expected those packages to have a double containment. The NRC researched this

[9] SECY–R–74–172, "Consideration of Form for Shipping Plutonium," April 18, 1974.

[10] SECY–96–215, "Requirements for Shipping Packages Used to Transport Vitrified Waste Containing Plutonium," dated October 8, 1996.

[11] SECY–97–218, "Special Provisions for Transport of Large Quantities of Plutonium (Response to Staff Requirements Memorandum—SECY–96–215)," dated September 29, 1997.

issue and found that section 16(a) of the Act does not contain any explicit provisions mandating the use of a double containment in packages transporting transuranic waste to or from WIPP. Section 16(a) of the Act states, in part, "[n]o transuranic waste may be transported by or for the Secretary [of the DOE] to or from WIPP, except in packages the design of which has been certified by the Nuclear Regulatory Commission * * *" Furthermore, the NRC has reviewed the legislative history [12] associated with the Act and has not identified any discussions on the use of double containment for the shipment of transuranic waste. The legislative history does mention that the design of these packages will be certified by the NRC; however, this language is identical to that contained in the Act itself. Therefore, the NRC believes the absence of specific language in section 16(a) of the Act requiring double containment should be interpreted as requiring the NRC to apply its independent technical judgment in establishing standards for package designs and in evaluating applications for certification of package designs, to ensure that such packages would provide reasonable assurance that public health and safety and the environment would be adequately protected. In carrying out its mission, the courts have found that the NRC has broad latitude in establishing, maintaining, and revising technical performance criteria necessary to provide reasonable assurance that public health and safety and the environment are adequately protected. An example of these technical performance criteria is the Type B package design standards. Accordingly, the NRC believes that the proposed revision of a technical package standard (*i.e.*, removal of the double containment requirement for plutonium from the Type B package standards) is not restricted by the mandate of section 16(a) of the Act for the NRC to certify the design of packages intended to transport transuranic material to and from WIPP.

Other commenters stated that stakeholders' expectations were that packages intended to transport transuranic material to and from WIPP would include a double containment provision. Consequently, the commenters expressed a belief that removal of the double containment requirement would decrease public confidence in the NRC's accomplishment of its mission in the approval of the design of packages for the transportation of transuranic waste to and from WIPP. The commenters stated that the public would view elimination of the double containment requirement as a relaxation in safety. The presence of a separate inner container provides defense-in-depth through an additional barrier to the release of plutonium during a transportation accident, according to commenters. In addition, the commenters stated that plutonium is so inherently deadly, that defense-in-depth is appropriate. The NRC agrees that a double containment does provide an additional barrier. However, the NRC believes that, for the reasons discussed below, double containment is unnecessary to protect public health and safety. The NRC and AEC have not required an additional containment barrier for Type B packages transporting any radionuclides other than plutonium and, before 1974, the AEC did not require double containment for plutonium.

In response to some of the comments opposed to the petition, the NRC believes that removal of § 71.63(b) would not invalidate the design of existing packages intended for the shipment of plutonium. These packages could continue to be used with a separate inner container. The NRC agrees with the commenters that a quantitative cost analysis was not provided by the petitioner.

The NRC has issued part 71 CoC No. 9218 to DOE for the TRUPACT–II package (Docket No. 71–9218), for the transportation of transuranic waste (including plutonium) to and from the WIPP. The TRUPACT–II package complies with the current § 71.63(b) requirements and has a separate inner container. The TRUPACT–II SAR indicates that the weight of the inner container and its lid is approximately 2,620 lbs. Hypothetically, elimination of the separate inner container would increase the available payload for the TRUPACT–II package from the current 7,265 to 9,885 lbs. Thus, removal of the double containment requirement would potentially increase the TRUPACT–II's available payload by 36 percent. Further, the removal of the inner container from the TRUPACT–II would also potentially increase the available volume. The NRC believes that the final rule would not invalidate the existing TRUPACT–II design (*i.e.*, it would still meet all remaining applicable requirements of part 71). Thus, DOE could continue to use the TRUPACT–II to ship transuranic waste to and from WIPP, or DOE could consider an alternate Type B package.

Additionally, based on comments received in the public meetings, the NRC believes that a misperception exists with respect to TRUPACT–II shipments; removal of the § 71.63(b) double containment requirement would not result in loose plutonium waste being placed inside a TRUPACT–II package. Based upon information contained in the SAR, plutonium wastes (*i.e.*, used gloves, anti-Cs, rags, etc.) are placed in plastic bags, and these bags are sealed inside lined 55-gallon steel drums. Plutonium residues are placed inside cans which are then sealed inside a pipe overpack (a 6-inch or 12-inch stainless steel cylinder with a bolted lid), and the pipe overpack is then sealed inside a lined 55-gallon steel drum. The 55-gallon drums are then sealed inside the TRUPACT–II inner containment vessel, and finally the inner containment vessel is sealed inside the TRUPACT–II package. Consequently, the TRUPACT–II shipping practices employ multiple barriers and would continue to do so. Removal of the inner containment vessel would not be expected to produce a significant incremental increase in the possibility of leakage during normal transportation. The NRC notes that some NRC regulations have established additional requirements for plutonium (*e.g.*, the special nuclear material license application provisions of § 70.22(f)).

The NRC believes that the Type B packaging standards, in and of themselves, provide reasonable assurance that public health and safety and the environment would be adequately protected during the transportation of radioactive material. This belief is supported by an excellent safety record in which no fatalities or injuries have been attributed to material transported in a Type B package. Type B packaging standards have been in existence for approximately 40 years and have been incorporated into the part 71 regulations by both the NRC and its predecessor, the AEC. The NRC's Type B package standards are based on IAEA's Type B package standards. Moreover, IAEA's Type B package standards have never required a separate inner container for packages intended to transport plutonium, nor for any other radionuclide.

Therefore, the NRC believes that imposition of an additional packaging

[12] *See* Congressional Record Vol. 137, November 5, 1991, pages S15984–15997 (Senate approval of S. 1671); Cong. Rec. Vol. 138, July 21, 1992, pages H6301–6333 (House approval of H.R. 2637); Cong. Rec. Vol. 138, October 5, 1992, pages H11868–11870 (House approval of Conference Report on S. 1671); Cong. Rec. Vol. 138, October 8, 1992 (Senate approval of Conference Report on S. 1671); and Cong. Rec. Vol. 138, October 5, 1992, pages H12221–12226 (Conference Report on S. 1671–H. Rpt. 102–1037).

requirement (in the form of a separate inner container) is fundamentally inconsistent with the position that Type B packaging standards, in and of themselves, provide reasonable assurance that public health and safety and the environment would be adequately protected during the transportation of (any type of) radioactive material. Thus, the NRC believes that maintaining § 71.63(b) is not consistent with the other existing Type B packaging standards contained in part 71.

The NRC also believes that the regulatory history of § 71.63 demonstrates that the AEC's decision to add this section was based on policy and regulatory concerns. However, the NRC also agrees that the use of a double containment does provide defense-in-depth and does decrease the absolute risk of the release of respirable plutonium to the environment during a transportation accident. Consequently, while the defense-in-depth afforded by a double containment does reduce risk, the NRC believes the question which should be focused on is whether the double containment requirement is risk-informed. The NRC is unaware of any risk studies that would provide a quantitative indication of the risk reduction associated with the use of an NRC-certified double containment packaging in transportation of plutonium. Rather, the NRC would look to the demonstrated performance record of existing Type B package standards to conclude that double containment is not necessary.

In summary, the AEC indicated (in SECY–R–702 and SECY–R–74–5) that liquid plutonium nitrate packages were safe, and new, larger packages to handle higher burnup reactor spent fuel could also be designed. NRC believes that the AEC's assumption for initiating this requirement was that large scale reprocessing of civilian reactor spent fuel and reuse of plutonium would occur. The decision of former President Carter's administration to forgo the reprocessing of civilian reactor spent fuel and reuse of plutonium obviated the AEC's assumption. Consequently, the AEC's supposition that a human error occurring while sealing a package of liquid plutonium nitrate was more likely to occur with the expected increase in shipments of plutonium nitrate was also obviated by the Government's decision to forgo the reprocessing of civilian reactor spent fuel. In SECY–97–218, NRC staff indicated that the separate inner container provided an additional barrier to the release of plutonium in an accident. NRC continues to believe that a separate inner container provides an additional barrier to the release of plutonium in an accident, just as a package with triple containment would provide an even greater barrier to the release of plutonium in an accident. However, this type of approach is neither risk informed nor performance based. Consequently, based upon review of the petition, comments on the petition, and research into the regulatory history of the double containment requirement, the NRC agrees that a separate inner container is not necessary for Type B packages containing solid plutonium. NRC believes that the worldwide performance record over 40 years of Type B packages demonstrates that a single containment barrier is adequate. Therefore, the NRC agrees with the petitioner and believes that § 71.63(b) is not technically necessary to provide a reasonable assurance that public health and safety and the environment will be adequately protected during the transportation of plutonium.

While the NRC believes a case can be made for elimination of the separate inner container requirement in § 71.63(b), elimination of the solid form requirement in § 71.63(a) is not as clear. While the same arguments can be made on the obviation of the AEC's basis for originally issuing § 71.63(a) (*i.e.*, the elimination of reprocessing of plutonium), the same regulatory inconsistency between Type B package standards and the inner containment requirement does not exist for the liquid versus solid form argument. The NRC considers the contents of a package when it is evaluating the adequacy of a packaging's design. The approved content limits and the approved packaging design together define the CoC for a package. However, other than criticality controls and the liquid form requirement of § 71.63(a), 10 CFR part 71 subparts E and F do not contain any restrictions on the contents of a package. Thus, while the inner containment requirement in § 71.63(b) can be seen as conflicting with the Type B package standard because the inner containment affects the packaging's design, the solid form requirement of § 71.63(a) does not conflict with the packaging requirements of the Type B package standard because the solid form requirement affects only the contents of the package, not the packaging itself.

The NRC expects that cost and dose savings would accrue from the removal of § 71.63(b). However, because no shipments of liquid plutonium nitrate are contemplated in the U.S., NRC would not expect cost or dose savings to accrue from the removal of § 71.63(a), if that section were to be also removed. Further, the AEC's original bases have been obviated by former President Carter's administration's decision to not pursue a commercial fuel cycle involving the reprocessing of plutonium.

After weighing this information, the NRC continues to believe that the Type B package standards, when evaluated against 40 years of use worldwide, and millions of safe shipments of Type B packages, together provide reasonable assurance that public health and safety and the environment would be adequately protected during the transportation of radioactive material. The NRC believes that, in this case, the reasonable assurance standard, provided by the Type B package requirements, provides an adequate basis for the public's confidence in the NRC's actions.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Several commenters suggested that all radioactive materials should require double packaging. Two of these commenters stated double containment is a security and safety precaution. A third stated that existing container requirements are the minimum standards necessary for safety, security, and public acceptance. Another commenter simply objected to the removal of the requirement for double containment of plutonium.

Response. The NRC disagrees with these comments. The NRC has made a finding that single containment of radioactive material provides an adequate level of safety for all radioactive materials. The A_1 and A_2 value summary found at 67 FR 21422; April 30, 2002, under the heading Issue 3, provides information that supports the NRC's basis for this decision. The comments provided no justification for the double containment requirement for shipment of all nuclear materials.

Comment. Several commenters were concerned with NRC's proposal to eliminate double containment. The first of these commenters asked if there is any basis to eliminate the double containment requirement other than to harmonize our rules with the IAEA regulations. The second commenter expressed concern that the "only benefits from eliminating double containment * * * would accrue to the DOE, to contractors, licensees, and shippers in the form of cost savings." Furthermore, the commenter stated that the cost of maintaining transportation

safety standards should be borne by those in the industry and that costs should not be "used as an excuse for deregulation or exemptions." A similar argument was made by another commenter who urged NRC not to remove § 71.63(b) reasoning that, as noted in the proposed rulemaking, the petitioner did not provide a quantitative cost analysis; therefore, the contention that "presence of § 71.63(b) engenders excessively high costs" is unsubstantiated. Another commenter stated that while an 8–13 percent volume reduction due to weight restrictions caused by double containment is not trivial, the benefits from reducing this weight penalty needs to be balanced against the resulting increase in radiation doses, the increased likelihood of a release in the event of a severe accident, and the increased cost of certifying a new package.

Response. The primary reason for removing the double containment requirement is that the NRC has no technical justification or basis for maintaining double containment for plutonium or any other radionuclide. The NRC believes the arguments for removing double containment have been adequately addressed earlier in this notice and in the proposed rule under this issue.

While NRC acknowledges that there may be monetary benefits associated with removing double containment, there are other reasons as well, including reduction in personnel exposure for those individuals involved in loading packages for transport. Further, while double containment does provide an additional barrier against release, the NRC believes that, for reasons previously explained, double containment is unnecessary to protect public health and safety. Moreover, NRC has been and remains committed to providing regulations that are not only risk informed, but also reduce unnecessary regulatory burden.

Comment. One commenter stated that removing the double containment requirement would reduce costs of packaging and associated hardware. The commenter asserted that double containment increases costs without measurable benefit. The commenter then provided cost information and discussed the design, certification, and fabrication of future packaging (*e.g.*, TRUPACT III or the DPP–1 and DPP–2) needed to complete DOE's Accelerated Cleanup strategy for resolution of the legacy wastes and materials from the Cold War.

Response. NRC acknowledges the comment.

Comment. Many commenters opposed the elimination of the double containment requirement because of possible public health and safety consequences.

Response. The commenters provided no basis for their assertions that removing the double-containment requirement would increase public exposure risks. The NRC staff believes that the current Type B package requirements, as applied to all radionuclides, are adequate to protect public health and safety.

Comment. One commenter stated that the principal benefit of removing the double containment requirement would be a reduction in exposure to the workers. The commenter added that it would also result in lower costs.

Response. NRC acknowledges the comment.

Comment. One commenter expressed concern that the A_1 and A_2 values have been used as a justification for single-shell containers for plutonium.

Response: The NRC does not agree with this unsubstantiated statement that the A_1 and A_2 values have been used as justification for the elimination of the double containment requirement for plutonium. The justifications for elimination of the double containment requirement were detailed in the proposed rule on April 30, 2002 (67 FR 21421 through 21425), and focus more on the fact that the original AEC requirement for double containment of plutonium was based on existing policy and regulatory concerns and was not risk informed. While the A_1 and A_2 values are referenced in the discussion, they are referenced from the standpoint that there are other radionuclides with the same or lower A_1 and A_2 values than plutonium. Because these radionuclides have never required double containment, it cannot be argued from a risk standpoint that the shipment of plutonium should be treated any differently.

Comment. Three commenters expressed support for the proposed removal of the requirement for "double containment" of plutonium from § 71.63. One commenter asserted that a single containment barrier is adequate for Type B packages containing more than 20 curies of solid form plutonium. The commenter further stated that the former AEC's rationale for requiring the double containment provision is now moot because the expectation for liquid plutonium nitrate shipments has never materialized. The commenter also expressed opposition to the double containment requirement because it presents continuing costs without commensurate benefits. The commenter stated that removing the double containment requirement would result in a small and acceptable increase in public risk. Furthermore, the requirement removes flexibility in package designs that might be needed to meet DOE's mission.

Another commenter expressed concern that the double containment requirement was implemented in the 1970s without adequate justification.

The third commenter said that using double containment causes unnecessary worker radiation exposure. This commenter said this unnecessary worker radiation is estimated to be 1200 to 1700 person-rem over a 10–year period. The commenter also said the conditions that justified double containment during the early 1970s have disappeared. These include large numbers of shipments of nitrate solutions or other forms from reprocessing, compounded by crude containment requirements, and the absence of quality assurance requirements. This position was justified because France, Germany, and the United Kingdom, as well as other IAEA Member Nations, no longer require double containment for plutonium. The commenter believed that harmonization of part 71 with IAEA TS–R–1 was an important goal of this rulemaking because to do so would allow for consistent regulation among the principal nations shipping nuclear materials. Furthermore, it was recommended that NRC eliminate the special requirements for plutonium shipments in § 71.63 for consistency with the use of prescriptive, performance-based safety standards.

Response. The comments are generally in line with statements in the proposed rule on April 30, 2002 (67 FR 21421 through 21425), that described the NRC's bases for elimination of the double containment requirement.

Comment. Several commenters stated that double containment provides more protection to the public than single containment. One of these commenters stated the belief that the commenter and a majority of the Western Governors are concerned with the proposal to eliminate the double containment requirement for plutonium shipments. The commenter stated that "the regulatory analysis is defective in its failure to recognize likely impacts on the agreement among the Western Governors' Association, the individual Western States, and DOE for a system of extra regulatory transportation safeguards, which we believe are at the heart of both government and public acceptance of the WIPP transportation program." One commenter stated that if

§ 71.63(b) is deleted, there will very likely be some use of single-contained packages for future WIPP shipments.

Response. With respect to the last commenter's statement, the use of single containment packages for future shipments is one possible outcome of the change. NRC acknowledges that agreements between DOE and States may be impacted by the elimination of the double containment regulatory requirement. However, any change to NRC regulations that impact how DOE conducts its transportation operations is a DOE decision. As such, DOE and the States may need to negotiate and resolve issues related to DOE's operations.

Comment. One commenter stated that the proposed rule is not risk informed and does not use a common sense approach. Another commenter stated strong agreement with this first commenter. Another commenter recommended that both §§ 71.63(a) and (b) be retained but that the limit be expressed as 0.74 TBq (20 Ci) for the total of all actinides with A_2 values equal to or less than 1.0×10^{-3} TBq (2.7×10^{-2} Ci).

Response. The NRC believes the decision to eliminate double containment is risk informed and reduces an unnecessary regulatory burden. In this context, there is adequate actual operating experience with Type B package shipments to support the Commission's decision to remove the double containment requirement for plutonium packages. There are many nuclides with A_2 values the same or lower than plutonium's that have never required double containment.

Further, current NRC regulations state that, in certain circumstances, plutonium in excess of 0.74 TBq (20 Ci) can be shipped as a normal form solid without requiring double containment. The shipment of reactor fuel elements containing plutonium is one example. Using the most conservative A_2 value of 0.00541 Ci, 0.74 TBq (20 Ci) of plutonium (Pu-238, Pu-239, Pu-240) equates to an A_2 multiple of roughly 3700. In contrast, using 19 risk-significant nuclides (including Am-241) from a typical single boiling water reactor spent fuel assembly (reference NUREG/CR-6672, "Reexamination of Spent Fuel Shipment Risk Estimates," page 7–17), one can calculate a curie content of 148,346 Ci with a cumulative A_2 multiple of just under 790,000 (the assembly also would contain an A_2 multiple of 455,000 of plutonium nuclides). If the A_2 multiple is viewed as a measure of potential health effect, then from a risk-informed standpoint, the shipment of one particular nuclide in a Type B package should not be treated differently from any other nuclide of comparable A_2 in a Type B package. It should be noted that for domestic shipments, there is a well established and excellent safety record associated with the shipment of spent fuel assemblies in single containment spent fuel packages.

Comment. Two commenters stated that removing the double containment requirement would provide health benefits for radiation workers. One commenter argued that the cost of reducing the exposure to workers to the required 1 mrem/yr would be very high. One commenter asserted that we need to balance public safety and the safety of radiation workers.

Response. As discussed in the draft EA, NRC agrees that the removal of the double containment requirement would result in reduced risk to radiation workers.

Comment. One commenter stated that worker exposure estimates are not supported by data. Another commenter stated that the conclusion that single containment will decrease radiation doses is incorrect for WIPP shipments. The commenter contends that radiation doses would increase to both workers and the general public.

Response. The first commenter's remark about lack of data on worker exposure estimates was true at the time of the public meeting on June 24, 2002, where the comment was made. However, during the comment period, DOE, one of the major entities affected by the current double containment rule, submitted the results of a detailed study they performed to evaluate the impacts for elimination of the current requirement. In that study, they presented quantifiable data that indicates that over a 10-year period, they could expect to see a reduction of 1200 to 1700 person-rem if the double containment provision is eliminated. The second commenter provided qualitative and quantitative information (some of which concerned a non-NRC certified cask) that comes to a contrary conclusion. While the NRC does not endorse or dispute either study's conclusions, the NRC believes worker dose would be reduced due to less handling. Further, radiation protection of transport workers (*e.g.*, drivers, inspectors) and the public is provided through the package maximum radiation levels set forth in DOT regulations, which are not a function of double containment.

Comment. One commenter stated that the NRC has not fully evaluated the regulatory impact of the proposed change on the use of the TRUPACT II design.

Response. During the development of the proposed rule, NRC staff used all available data to evaluate the costs and benefits of the proposed change. NRC staff requested specific information on costs and benefits as part of the proposed rule, and the information received was considered during the development of a final position. NRC received a study from the commenter and, while the NRC does not endorse or dispute the study's conclusions, the results are in line with the NRC's contention that elimination of the double containment requirement will likely result in a reduction in worker radiation exposure.

Comment. One commenter asked if NRC considers powder a solid form.

Response. Yes, the NRC has always considered powder as a solid form when implementing § 71.63(a). However, powders, under the eliciting rule, were not considered as a solid form that was exempt from the double containment requirements of § 71.63(b).

Comment. One commenter endorsed NRC's proposal to retain the requirement that shipments whose contents exceed 20 curies of plutonium must be made in a solid form as provided under § 71.63(a).

Response. The comment is acknowledged.

Comment. One commenter expressed support for the NRC position.

Response. The comment is acknowledged.

Comment. Several commenters expressed concern that removing the double containment requirement would erode public confidence in the Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. One of the commenters noted that NRC's decision is not supported by any studies to demonstrate that the change is minimal and that NRC should only relax the double containment provisions when NRC receives scientific evidence that demonstrates beyond a reasonable doubt that single containment is as safe as double containment for shipments to WIPP. Another commenter cited the economic, shipping, and public confidence aspects of a severe accident release as the primary arguments in support of retaining double containment.

Response. The comments are acknowledged. With regard to the last commenter's citation, as is the case with other nuclides, NRC-certified Type B packagings provide for safety in transportation accidents. With regard to non-safety focused arguments (economic and public confidence

issues), as well as the other commenter's concerns, the reader is referred to a related discussion earlier on this issue, under the heading: Analysis of Public Comments on the Issues Paper.

Comment. One commenter discussed an incident involving the shipment of plutonium-containing transuranic waste to DOE's Waste Isolation Pilot Plant in New Mexico. A truck carrying TRU waste was involved in a traffic accident. While no radiation was released, the inner container was discovered to be contaminated with radiation to the extent that it could not be unloaded. The commenter pointed out that the double-walled container provided a margin of safety that would not have existed under the proposed rule. The commenter stated that the incident underscores the importance of maintaining the double containment requirement, as it has been a crucial element in the success of the WIPP TRU waste shipping campaign to date.

Response. In the cited case, NRC staff understands that neither containment was compromised due to the accident.

Comment. One commenter stated that all shipping requirement revisions should be more, rather than less, protective of public health. Two other commenters stated that the AEC's original 1974 reasoning for imposing the double containment requirements was still valid, including the possibility for human error and expected increases in the number of shipments. The commenter also responded to the claim that adopting a single containment requirement would be safer for personnel who handle the inner container by stating that this may simply be a shifting of risk from personnel to the public.

Response. The comment that shipping requirement revisions should all be more, rather than less, protective of public health, is acknowledged. The NRC's transportation regulations are designed to provide adequate protection to the public health and safety from radioactive material transportation activities. In doing so, NRC seeks to balance its regulations by ensuring public health and safety while at the same time not creating unnecessary regulatory burden.

Regarding the comment that the AEC's original 1974 reasoning for imposing double containment is still valid, the NRC notes that the AEC's original reasoning was based on the fact of transporting liquids; that is no longer the case. The justifications for elimination of the double containment requirement detailed in the proposed rule on April 30, 2002 (67 FR 21421 through 21425) is based on technical arguments and focus on the confidence in Type B packages. While there is an increase in the number of shipments to WIPP, the vast majority of these shipments do not involve liquids.

The NRC disagrees with the comment that while the adoption of a single containment requirement would be safer for personnel who handle the inner container, this constitutes a shifting of the risk from personnel to the public. The NRC believes that the risk of shipping plutonium in a single containment Type B package is no different than that of shipping other radionuclides with the same or lower A_1 and A_2 values than plutonium.

Comment. One commenter stated that although spent fuel that is damaged to the extent that the rod cladding's integrity is in question may be subject to the requirements of § 71.63, it is not clear that all damaged fuel will require double containment.

Response. NRC has previously published guidance (ISG–1, Rev. 1, dated October 25, 2002) on when the double containment provision is required for damaged spent fuel. Basically, canning (double containment) is required if the spent fuel contains known or suspected cladding defects greater than a pinhole leak or hairline crack that have the potential for release of significant amounts of fuel into the cask.

Comment. One commenter stated that additional procedures (*e.g.*, closures and testing) are required to implement § 71.63, which leads to added worker exposures. The commenter provided quantitative and monetized data detailing the extra time and amount of money that the double containment requirement imposes on TRU Waste, Plutonium Oxides, and Damaged Spent Nuclear Fuel Operations.

Response. NRC acknowledges this comment.

Comment. One commenter stated that additional containment systems reduce cask capacities and consequently require more shipments to move the same material. This commenter also said that the double containment represents extra weight that must be moved and then provided estimates of the cost for moving the extra weight in the double-containment structure in the cases of TRU Waste, Plutonium Oxides, and Damaged Spent Nuclear Fuel operations.

Response. The comment is acknowledged.

Comment. One commenter stated that design costs and costs for NRC certification services are incurred by increased design complexity relating to the provision of the double-containment barrier. The commenter noted that the alternative to the design and certification cost penalty is to petition for an exemption under § 71.63(b)(4); however, preparing this petition is time-consuming and probably similar in cost to getting a separate containment boundary designed and certified. The commenter estimated certification and capital cost penalties for the cases of CH–TRU and RH–TRU Wastes, Plutonium Oxides, DHLW Glass Exemption, and Damaged Spent Nuclear Fuel.

Response. The comment is acknowledged.

Comment. One commenter stated that while the restrictions of § 71.63 remain in effect, it must continue to expend funds unnecessarily for double-containment packaging. This commenter provided tables of monetized breakdowns of these estimates. The commenter estimated that the net result from all three areas (TRU wastes, plutonium oxides and residues, and damaged spent nuclear fuel) is that double-containment requirements will produce an avoidable cost of approximately $12 million in capital cost, $20 million in operational cost, and $26 million to $40 million in shipping and receiving costs. In addition, the commenter estimated that the double containment requirement will result in additional worker radiation exposure amounting to 1250 to 1770 person-rem.

Response. The commenter has provided information that appears to support the NRC's contention that removal of double containment would provide for cost savings and decreased personnel exposure.

Comment. One commenter stated that double containment provides some additional protection to the public in both normal and accident situations. The commenter stated that most of this additional protection relates to a potential reduction in population exposure. However, the commenter estimated that the total radiation exposure reduction in most cases amounts to a maximum of about 30 person-rem/year distributed among a potentially exposed population of tens of millions of persons. The commenter stated that such an effect would not be perceptible.

Response. NRC acknowledges the comment.

Comment. One commenter stated that, although double containment reduces the risk incurred by the public of exposure to radiation from the package in incident-free transport, the reduction is likely to be relatively small. The dose rate is already small enough at distances

where the public is likely to be exposed that the impact of single-or double-contained material will not be consequential. This commenter also noted that one effective containment boundary is sufficient to meet containment requirements implicit in Type B design approvals, but the materials shipped are already within one or more inner containers. The commenter believes the presence of these redundant containers effectively rules out any problems that might result from human errors in achieving a required level of leak-tightness for single contained Type B packages.

Response. NRC acknowledges the comment.

Comment. One commenter stated that doubly contained packages pose lower risks and is not, by itself, sufficient justification for using doubly contained packages. The commenter stated that, in general, the likelihood of achieving an accident sufficient to compromise containment of a singly contained Type B package has been estimated to be fewer than 1 in 200 in the event of a severe accident. Achieving damage to two redundant containments could be expected to be as much as a factor of 10 lower risk relative to the single containment case. The commenter stated that this is not as large a benefit as it may seem; the decrease in absolute risk will be very small because the risk of shipping singly contained plutonium is exceedingly small to start. The commenter provided monetized and quantified estimates of the cost/risk tradeoffs associated with double-containment versus single-containment for the handling of Contact-Handled TRU Waste, Plutonium Oxide and Plutonium-Bearing Wastes, Remote-Handled TRU Waste, and Failed Fuel.

Response. NRC acknowledges the comment.

Comment. Two commenters stated that if the NRC continues to pursue the proposal to relax the plutonium shipment double containment standards, then it should conduct a series of hearings on the rulemaking, with at least one of those hearings held in the western U.S. Another commenter objected to the lack of public education regarding the "numerous, confusing, and complicated" proposed rule changes, which, when presented as they were, encourage nonengagement. The commenter requested that an extension be placed on the comment period and that "ordinary" language be used to explain the actual proposals, how they will impact public health, what agencies and rules are involved, and how one can easily reply to all agencies involved in these proposals by mail, email, or fax.

Response. The rulemaking process does not include the opportunity for formal hearings because the proposed rulemaking is not a licensing action, which does require hearings. The NRC staff thinks that the commenter meant holding public meetings to discuss the issue. Hearings were held in this rulemaking in the form of public meetings. Two meetings were held in June 2002, in Chicago, IL, and the NRC TWFN Auditorium, and 3 meetings were held in NRC Headquarters, Atlanta, GA, and Oakland, CA, during August and September 2000. The NRC did not extend the 90-day public comment period, because the public had ample opportunity to comment on this rule during the 1-year period following March 2001, when the proposed rule was posted on the Secretary of the Commission Web site.

Issue 18. Contamination Limits as Applied to Spent Fuel and High-Level Waste (HLW) Packages

Summary of NRC Final Rule. The final rule does not adopt any changes to part 71 for this issue because experience with regulations requiring that licensees monitor the external surfaces of labeled radioactive material packages for contamination upon receipt and opening indicates the rate of packages exceeding allowable levels en route is low, and therefore, in transit decontamination of packages is not warranted. Further, requiring such decontamination of packages could result in a significant increase in worker doses without a commensurate increase in public health and safety.

Affected Sections. None (not adopted).

Background. In the period of December 1997 through April 1998, the French Nuclear Installations Safety Directorate inspected a French nuclear power plant and railway terminal used by La Hague reprocessing plant. The inspectors noticed that, since the beginning of the 1990's, a high percentage of spent fuel packages and/or railcars had a level of removable surface contamination that exceeded IAEA regulatory limits by as much as a factor of 1000. Subsequent investigations found that the contamination incidents involved shipments from other European countries, and the French transport authorities notified their counterparts of their findings. Subsequently, French, German, Swiss, Belgian, and Dutch spent fuel shipments were temporarily suspended.

After estimating the occupational and public doses from the contamination incidents, the European transport authorities concluded that these incidents did not have any radiological consequence. The contamination was believed to be caused by contact of the spent fuel package surface with contaminated water from the spent fuel storage pool during package handling operations. The authorities concluded that there were deficiencies in the contamination measurement procedures and the distribution of that information.

Media reports on these incidents focused attention on IAEA's regulations for removable contamination on package surfaces. TS–R–1 contains contamination limits for all packages of 4.0 Bq/cm^2 for beta and gamma and low toxicity alpha emitting radionuclides, and 0.4 Bq/cm^2 for all other alpha emitting radionuclides. Although TS–R–1 uses the term "limit," IAEA considers these "limits" to be guidance values, or derived values, above which appropriate action should be considered. In cases of contamination above the limit, that action is to decontaminate to below the limits.

TS–R–1 further provides that in transport, "* * * the magnitude of individual doses, the number of persons exposed, and the likelihood of incurring exposure shall be kept as low as reasonable, economic and social factors being taken into account * * *" The IAEA contamination regulations have been applied to radioactive material packages in international commerce for almost 40 years, and practical experience demonstrates that the regulations can be applied successfully. With respect to contamination limits, TS–R–1 contains no changes from previous versions of IAEA's regulations.

Part 71 does not contain contamination limits, but § 71.87(i) requires that licensees determine that the level of removable contamination on the external surface of each package offered for transport is as low as is reasonably achievable, and within the limits specified in DOT regulations in 49 CFR 173.443.

The IAEA established a Coordinated Research Project (CRP) to review contamination models, approaches to reduce package contamination, strategies to address cask-weeping, and possible recommendations for revisions to the contamination standard that consider risks, costs, and practical experience. The IAEA CRP facilitates the investigation of radioactive material transportation issues by key IAEA Member States. IAEA is considering the CRP report, and any further actions or remedies that may be warranted are being addressed by the IAEA Transportation Safety Standards Committee (TRANSSC). NRC supported

the IAEA initiative to establish the CRP, and NRC would participate in the IAEA review of surface contamination standards.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. One commenter expressed support of the NRC position not to change from current standards.

Response. The NRC acknowledges these comments. No further response necessary.

Comment. One commenter requested that the NRC keep "removable contamination of external "spent" fuel shipping packages" to the "absolute minimum attainable, even if extra cost is incurred in doing so." The commenter added that "full data on container surface contamination must be kept and submitted to the regulatory agency as part of required manifest records."

Response. Keeping contamination to an absolute minimum could result in a significant increase in worker dose, due to the additional exposures required to achieve that low level of contamination, without a commensurate increase in public health and safety. Current DOT regulations require that shippers be able to provide to inspectors upon request documentation that supports the shipper's certification that radioactive material shipments were made in compliance with applicable requirements, including contamination limits. This practice has worked well, and NRC has no basis to change it.

Comment. One commenter stated that the NRC's measures should allow for decontamination of nuclear waste shipments during transport if they begin to exceed allowable radiation levels en route. The commenter stated that this would reduce exposure to the public and prevent shipments from having to return to the point of origin.

Response. Current NRC regulations require that licensees monitor the external surfaces of labeled radioactive material packages for contamination upon receipt and opening (*see* details at § 20.1906(b)(1)). Based on its experience with these regulations, the rate of packages exceeding allowable levels en route is low, and NRC does not believe that in transit decontamination of packages is warranted.

Comment. One commenter asserted that there is no reason to seek any special dose consideration or reduction in the handling and transport of spent fuel or storage casks. The commenter added that industry has not attributed any problems with decontamination and dose to the handling and transport of spent fuel or storage casks. The commenter did note that although industry did experience some of the weeping issues in the early 1990's, industry has taken steps to eliminate this condition.

Response. NRC agrees that incidents of cask weeping have subsided in recent years. However, NRC notes that considerable occupational dose is expended to achieve compliance with current regulatory limits that do not appear to be risk-informed, and that occupational and public doses associated with spent fuel cask surface contamination limits do not appear to be optimized.

Comment. One commenter requested that the NRC not relax "radiation protection in any shipments, especially high-level wastes and intensely irradiated "spent" fuel." the reason being that, in the near future, shipments of high-level wastes and spent fuel may increase in number, and this would justify NRC staff's maintaining "maximum control * * * as a principal goal of the NRC." The commenter also stated that while "Europeans may dismiss contamination "incidents" as having no radiological consequences * * * that is not convincing, in view of recent research findings concerning adverse impacts of low-level radiation at the cellular and molecular levels."

Response. No change to the contamination limit is being adopted in the final rule, and no relaxation of radiation protection has been proposed.

Comment. Two commenters expressed opposition to allowing greater contamination on surfaces of irradiated fuel and high-level radioactive waste containers and supported NRC's decision to refuse this. Two other commenters supported the NRC's proposal to make no changes in the contamination levels for these packages.

Response. No response is necessary.

Comment. One commenter expressed opposition to allowing greater contamination on surfaces of irradiated fuel and high level radioactive waste containers.

Response: The NRC acknowledges these comments. No response is necessary.

Issue 19. Modifications of Event Reporting Requirements

Summary of NRC Final Rule. The final rule revises, in § 71.95, the event reporting submission period to provide a written report from 30 to 60 days. Other regulatory requirements to orally notify the NRC Operations Center promptly of an event and for licensees to report instances of failure to follow the conditions of the CoC while packaging was in use remain unchanged. The revision lengthening the time for submission of the written report is consistent with changes to similar requirements in Part 50.

Affected Sections. Section 71.95.

Background. The Commission recently issued a final rule to revise the event reporting requirements in Part 50 (*see* 65 FR 63769; October 20, 2000). This final rule revised the verbal and written event notification requirements for power reactor licensees in §§ 50.72 and 50.73. In SECY–99–181,[13] NRC staff informed the Commission that public comments on the proposed part 50 rule had suggested that conforming changes also be made to the event notification requirements in part 72 (Licensing Requirements for the Independent Storage of Spent Fuel) and part 73 (Physical Protection of Plants and Materials). In response, the Commission directed the NRC staff to study whether conforming changes should be made to parts 72 and 73. During this study, the NRC also reviewed the part 71 event reporting requirements in § 71.95 and concluded that similar changes could be made to the part 71 event reporting requirements.

Analysis of Public Comments on the Proposed Rule

A review of the comments and the NRC staff's responses for this issue follows:

Comment. Two commenters expressed support for the proposed modifications. One commenter stated that the proposed modifications to event reporting requirements will enhance safety. The other commenter noted that many States respond to incidents involving radioactive materials on a regular basis and would not want to wait until the full 60 days for reporting purposes.

Response. The NRC acknowledges the comments supporting the change to require a 60-day report instead of a 30-day report for a transportation event. The comment that States would need to respond to incidents and would need reports sooner than 60 days is not consistent with the fact that prompt reporting to the National Response Center, NRC Operations Center, and appropriate State Authorities occurs after an event. The written report to the NRC will not affect this practice. Therefore, the change in the time to

[13] SECY–99–181, "Proposed Plans and Schedules to Modify Reporting Requirements Other than 10 CFR 50.72 and 50.73 for Power Reactors and Material Licensees," dated July 9, 1999.

provide a written report would have no effect on the emergency response and information exchange actions that would still be performed by licensees or the DOT National Response Center. Therefore, no changes in the proposed rule language are being made.

Comment. One commenter asked how this proposed change affects other parts of the proposed rulemaking and urged the NRC to ensure that it conforms with the rest of the proposed rulemaking.

Response. There are no other impacts on the regulations associated with adopting this specific change.

Comment. Two commenters opposed the proposed event reporting requirements. The first commenter stated that there should never be a 30- or 60-day "delay in filing a report on any event involving malperformance of a package or container," but that a report should be filed immediately with the NRC when a problem occurs. The second commenter suggested that "reporting should serve the needs of the (NRC) staff-and public safety," rather than the licensee. This commenter also claimed that an extra 30 days may be too long an extension if there is a serious safety problem.

Response. The NRC notes that if a serious safety problem resulted from an incident, it would be reported promptly to the NRC Operations Center. The NRC staff notes that a review of the regulatory analysis included in the proposed rule stated that: "In new paragraph (a)(3), [of section 71.95] the NRC would retain the existing requirement for licensees to report instances of failure to follow the conditions of the CoC while a packaging was in use." This section was inadvertently left out of the proposed rule language and was added to the final rule.

Comment. One commenter indicated concern about the lack of data to support NRC's position on extending the reporting period from 30 to 60 days.

Response. There is sufficient rationale as reflected in other regulations for reducing the regulatory burden related to the time for submitting written reports. *See* the discussion in the proposed rule (April 30, 2002; 67 FR 21427) for additional detail on the justification for the change. Therefore, no change to the rule is proposed.

Comment. One commenter was concerned about difficulties in compiling a jointly written report by the certificate holder and the shipper if they are in different countries.

Response. The commenter's concern about coordination of a jointly written event report is valid; however, the longer time being proposed for submitting an event report should accommodate delays in the communication interface and help ensure completion within the 60-day reporting period. Therefore, no changes have been made to the proposed rule language.

Comment. One commenter found the event reporting requirements unclear in two places. The proposed rule would direct the licensee to request information from certificate holders; however, neither the supporting discussion nor regulatory text addresses a situation in which a certificate holder declines to provide comments. The commenter asked whether the licensee's obligation would be satisfied at the point that a request is made to CoC holders. The commenter also found it unclear whether NRC intended to exempt DOT specification and foreign package designs holding U.S. validations from the reporting requirements. The commenter asserted that if NRC intends to make a distinction between NRC-approved packages and other authorized packages, it may be necessary to develop separate QA procedures and related instructions. The impacts on resources associated with such development may require further investigation.

Response. Regarding the first question about what would happen if a licensee did not receive supporting information in its process to issue an event report to the NRC to comply with the requirements of § 71.95, the NRC notes that the licensee should make an earnest attempt to obtain relevant information from the CoC holder. In the case where the CoC holder refused to provide input to the report, the licensee would still need to submit the report to the NRC within the 60-day time period. NRC technical staff would determine if CoC staff input should have been included in the report and would obtain it directly from the CoC holder as necessary. Further, if the NRC determined that the CoC holder's lack of support resulted in a report that was incorrect or incomplete, then the NRC would pursue appropriate regulatory action against the CoC holder.

Regarding the second question about the reporting requirement being applicable to DOT specification and foreign package designs with U.S. validation, the NRC notes that its regulations only apply directly to its licensees or CoC holders. NRC will, however, forward this comment to DOT for appropriate consideration. No change to NRC rule language is being made.

Comment. One commenter stated that the requirement of the CoC holder to rely on other licensees or registered users, over whom the holder has no authority or control, to identify problems or package deficiencies, is inappropriate and must be modified. Another commenter stated that the authorized package user should be making the required report.

Response. Both comments deal with the original language in the existing § 71.95 which states that licensees are responsible for providing event reports to the NRC.

IV. Section-by-Section Analysis

Several sections in part 71 are redesignated in this rulemaking to improve consistency and ease of use. For some sections, only the section number is changed. However, for other sections, revisions are being made to the regulatory language. The following table is provided to aid the public in understanding the numerical changes to sections of part 71.

REDESIGNATION TABLE

New section number	Existing section number
§ 71.8	§ 71.11.
§ 71.9	New section.
§ 71.10	New section.
§ 71.11 (Reserved)	NA.
§ 71.12	§ 71.8.
§ 71.13	§ 71.9.
§ 71.14	§ 71.10.
§ 71.15	§ 71. 53.
§ 71.16 (Reserved)	NA.
§ 71.17	§ 71.12.
§ 71.18 (Reserved)	NA.
§ 71.19	§ 71.13.
§ 71.20	§ 71.14.
§ 71.21	§ 71.16.
§ 71.22	§ 71.18.
§ 71.23	§ 71.20.
§ 71.24 (Reserved)	§ 71.22 (Section removed).
§ 71.25 (Reserved)	§ 71.24 (Section removed).
§ 71.53 (Reserved)	§ 71.53 (Section redesignated).

Subpart A—General Provisions

Section 71.0 Purpose and scope

Paragraph (d) has been reformatted into three paragraphs to simplify this regulation and to better use plain language. Paragraph (d)(1) indicates that general licenses, for which no NRC package approval is required, are issued in new §§ 71.20 through 71.23. This change reflects the removal of existing §§ 71.22 and 71.24 (redesignated §§ 71.24 and 71.25 (Reserved)). Paragraph (d)(2) indicates that an application for package approval must be completed in accordance with subpart D. Paragraph (d)(3) continues to

require a licensee transporting, or delivering material to a carrier for transport, to meet the requirements of the applicable portions of subparts A, G, and H.

New paragraph (e) has been added to indicate that persons who hold, or apply for, a part 71 CoC for Type AF, Type B, Type BF, Type B(U)F, or Type B(M)F packages are within the scope of part 71 regulations.

Existing paragraphs (e) and (f) have been redesignated as new paragraphs (f) and (g), respectively. The rule text in new paragraph (f) is the same as existing paragraph (e) text. New paragraph (g) has been revised to reflect the redesignation of existing § 71.11 as new § 71.8.

Section 71.1 Communications and Records

In § 71.1, paragraph (a) has been revised to indicate that documents submitted to the NRC should be addressed to the attention of the "Document Control Desk," not the "Director of the Office of Nuclear Material Safety and Safeguards." Provisions have also been added to provide requirements when a due date for a document falls on a Saturday, Sunday, or Federal holiday. In that case, the document would be due the next Federal workday. This change is identical to a change made to § 72.4 in a recent part 72 final rule (*see* 64 FR 33178; June 22, 1999).

Section 71.2 Interpretations

No changes were made to the text of this section; however, it has been retained in the revision of this subpart for completeness.

Section 71.3 Requirement for License

No changes were made to the text of this section; however, it has been retained in the revision of this subpart for completeness.

Section 71.4 Definitions

The existing definitions for "A_1," "Fissile material," "Low Specific Activity (LSA) material," "Package," and "Transport index (TI)" are revised as conforming changes. New definitions for "A_2," "Certificate of Compliance," "Consignment," "Criticality Safety Index (CSI)," "Deuterium," "U.S. Department of Transportation (DOT)," "Graphite," "Spent fuel," and "unirradiated uranium" have been added as conforming changes.

The definition of "A_1" has been revised to split the previous combined definition for "A_1" and "A_2" into two individual definitions. This approach is consistent with the standard in TS–R–1. Furthermore, no change has been made to the current technical content of the definition for "A_1"; however, the text is revised to improve readability.

A definition for "A_2" has been added, because the previous joint definition for "A_1" and "A_2" has been split into two definitions. (*See also* definition for "A_1.")

A definition for "Certificate of Compliance" has been added. This definition is similar to the definition for the same term found in § 72.3.

A definition for "Consignment" has been added.

A definition of "Criticality Safety Index (CSI)" has been added.

A definition of "Deuterium" has been added that applies to new §§ 71.15 and 71.22.

A definition of "U.S. Department of Transportation (DOT)" has been added.

The definition of "Fissile material" has been revised by removing ^{238}Pu from the list of fissile nuclides; clarifying that "fissile material" means the fissile nuclides themselves, not materials containing fissile nuclides; and redesignating the reference to exclusions from fissile material controls from § 71.53 to new § 71.15.

A definition of "Graphite" has been added that applies to new §§ 71.15 and 71.22.

The definition of "Low Specific Activity (LSA)" material (LSA–I, LSA–II, and LSA–III) has been revised to be consistent with DOT, and to reflect the existence of § 71.77 (§ 71.77 provides requirements on the qualification of LSA–III material).

A definition for "Optimum interspersed hydrogenous moderation" has been added (the definition itself was included in the proposed rule § 71.4, but, inadvertently, no mention of that fact was made in this Section).

The definition of "Package" has been revised by clarifying in paragraph (1) that Fissile material package also means a Type AF, Type BF, Type B(U)F, or Type B(M)F package. New paragraph (2) has been added defining Type A packages in accordance with DOT regulations contained in 49 CFR Part 173. Existing paragraph (2) defining Type B packages has been redesignated as subparagraph (3). No changes have been made to the redesignated text.

A definition of "Spent nuclear fuel" or "Spent fuel" has been added. This definition is the same as that currently found in § 72.3.

The definition for "Transport index (TI)" has been revised to reflect the new definition of Criticality Safety Index; however, the method for determining the TI of a package, based on the package's radiation dose rate, remains unchanged.

A definition for "unirradiated uranium" has been added as it is part of the LSA–I definition.

Section 71.5 Transportation of Licensed Material

No changes were made to the text of this section; however, it has been included in the revision of this subpart for completeness.

Section 71.6 Information Collection Requirements: OMB Approval

This section has been redesignated from subpart B, Exemptions, to subpart A, General Provisions. Paragraph (b) of this section has been revised as a conforming change to reflect the addition of new information collection requirements. Additionally, the existing information collection requirement in Appendix A to part 71, paragraph II, was inadvertently omitted from the list of approved information collection requirements in a previous rulemaking; consequently, NRC staff has added Appendix A, paragraph II, to paragraph (b) to correct this error. Furthermore, the reference to § 71.6a has been removed, because no such section currently exists in part 71.

Section 71.7 Completeness and Accuracy of Information

This section has been redesignated from subpart B, Exemptions, to subpart A, General Provisions. Further, paragraphs (a) and (b) have been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.8 Deliberate Misconduct

This section has been redesignated from subpart B, Exemptions, to subpart A, General Provisions. Further, in subpart A, § 71.11 has been redesignated as § 71.8. However, the current text of § 71.11 has not changed in the redesignated § 71.8.

Section 71.9 Employee Protection

New § 71.9 has been added to provide requirements on employee protection. Currently, requirements relating to the protection of employees against firing or other discrimination when the employee engages in certain "protected activities" are provided under the parts of title 10 for which a specific license was issued to possess radioactive material. However, no provisions were provided in part 71 relating to the protection of employees against firing or other discrimination when employees engage in certain "protected activities" when they are the employees of a certificate holder or applicant for a CoC.

The NRC believes these employees should also be afforded the same rights and protection as are currently afforded employees of licensees. The new section is identical to the existing § 72.10, "Employee protection." In including licensees in the new § 71.9, the NRC recognizes that the potential for duplication occurs for licensees regulated under multiple title 10 parts. However, the NRC believes that by including licensees along with certificate holders and applicants for a CoC, improved regulatory clarity would be achieved, and any potential confusion would be minimized.

Section 71.10 Public Inspection of Application

A new section has been added indicating that applications and documents submitted to the Commission, in connection with an application for a package approval, shall be available for public review in accordance with the provisions of parts 2 and 9. This new section is similar to existing § 72.20. Existing § 71.10 has been redesignated § 71.14 with changes to the text as discussed under § 71.14, below.

Section 71.11 (Reserved)

This section has been redesignated from subpart B, Exemptions, to subpart A, General Provisions, and is reserved. Existing § 71.11 has been redesignated as § 71.8.

Subpart B—Exemptions

Section 71.12 Specific Exemptions

Existing § 71.8 has been redesignated as § 71.12. No changes have been made to the contents of this section. Existing § 71.12 has been redesignated as § 71.17, with changes to the text as discussed under § 71.17, below.

Section 71.13 Exemption of Physicians

Existing § 71.9 has been redesignated as § 71.13. No changes have been made to the contents of this section. Existing § 71.13 has been redesignated as § 71.19, with changes to the text as discussed under § 71.19, below.

Section 71.14 Exemption for Low-Level Materials

Existing § 71.10 has been redesignated as § 71.14. Existing § 71.14 has been redesignated as § 71.20, with no changes to the text.

In new § 71.14, paragraph (a) has been revised by removing the existing single 70 Bq/g (0.002 μCi/g) specific activity value. Additionally, paragraph (a) has been reformatted by adding two new paragraphs. Subparagraph (a)(1) provides an increased exemption for natural radioactive materials and ores. Subparagraph (a)(2) provides an exemption for radioactive material based on the "Activity Concentration for Exempt Material" and the "Activity Limit for Exempt Consignment" found in Table A–2 in Appendix A to part 71.

Paragraph (b) has been revised to consolidate the exemption provisions for LSA and SCO material. The LSA and SCO exemptions contained in existing paragraphs (b)(2) and (c) of this section have been consolidated into a revised paragraph (b)(3). The reference to material exempt from classification as fissile material has been revised from § 71.53 to § 71.15, because of the redesignation of the section.

Existing paragraph (b)(3) has been removed. The 0.74–TBq (20–Ci) exemption for special form americium and special form plutonium has been removed. However, the 0.74–TBq (20–Ci) exemption for special form plutonium-244, transported in domestic commerce, has been retained as new paragraph (b)(2). For international shipments, the A1 quantity limit for special form plutonium-244 continues to apply.

Section 71.15 Exemption From Classification as Fissile Material

Existing § 71.11 has been redesignated as § 71.8. Existing § 71.53 has been redesignated as § 71.15, and relocated to subpart B with the other part 71 exemptions. This section has been revised by providing mass-ratio based limits in classifying fissile-exempt material. This approach removes the concentration- and consignment-based limits of the current § 71.53 and returns to package-based mass limits, with required minimum ratios of nonfissile-to-fissile mass.

The title has been changed to "Exemption from classification as fissile material."

New paragraph (a) has been added and allows for small samples of fissile material to be shipped. In paragraph (b), the fissile mass per package is limited to 15 grams with a nonfissile-to-fissile mass ratio of 200:1. In paragraph (c), the allowed provided there is less than 150 g of fissile material per 360 Kg ratio of nonfissile-to-fissile material is also raised to 2000:1. The mass of any lead, graphite, beryllium, and deuterium in the package cannot be included in determining the nonfissile material mass.

In current § 71.53, paragraph (c) has been redesignated as paragraph (e), and has been reformatted and revised to clarify that the nitrogen to uranium atomic ratio, for shipments of liquid uranyl nitrate, must be greater than or equal to 2.0. A new requirement has been added specifying the use of DOT Type A packaging.

In current § 71.53, paragraph (d) has been redesignated as paragraph (e), and has been reformatted and revised to clarify the mass limits for plutonium. No substantive changes have been made to this paragraph.

Section 71.16 (Reserved)

This section has been redesignated from subpart C, General Licenses, to subpart B, Exemptions, and is reserved. Further, existing § 71.16 has been redesignated as § 71.21. However, the current text of § 71.16 has not been changed in the redesignated § 71.21.

Subpart C—General Licenses

Section 71.17 General License: NRC-Approved Package

Existing § 71.12 has been redesignated as § 71.17. The text of paragraphs (a) and paragraph (b) has not been changed.

Paragraph (c)(3) has been revised using plain language and to reflect the NRC's requirement to address information submitted to the NRC to the attention of the NRC's Document Control Desk, in accordance with § 71.1.

Paragraph (d) has not been changed.

Paragraph (e) has been revised to reflect the redesignation of § 71.13 to § 71.19. No other change was made for this paragraph.

Section 71.18 Reserved

Section 71.19 Previously Approved Package

Existing § 71.13 has been redesignated as § 71.19. Paragraph (a) has been revised to reflect the current package designators (*e.g.*, B(U)F, B(M)F, AF) and to reflect the redesignation of § 71.12 to § 71.17. Additionally, the contents of paragraph (a)(2) have been removed to reflect that these packages are no longer recognized internationally. Existing paragraph (a)(3) has been redesignated as (a)(2) with no change to the contents. Also, an expiration date for grandfathering these packages has been established in new paragraph (a)(3). Paragraph (b) has been updated to remove the LSA packages, as these packages no longer exist, and to reflect the redesignation of § 71.12 to § 71.17. No other changes were made. A new paragraph (c) has been added to reflect the type B(U) and B(M) packages that have met the requirements of IAEA Safety Series 6 1985 (as amended 1990) and to correct a typographical error. Additionally, a date by which fabrication of these packages must be complete has been added. Existing paragraph (c) has been redesignated as

paragraph (d). Existing paragraph (d) has been redesignated as paragraph (e) and updated to reflect the identification number suffix of "-96" for previously approved package designs that have been resubmitted for review by the NRC and have been approved, and to remove the package designated as Type A from this paragraph.

Section 71.20 General License: DOT Specification Container

Existing § 71.14 has been redesignated as § 71.20. No changes have been made to the contents of paragraphs (a) through (d). New paragraph (e) has been added to indicate that these types of packages will be phased out 4 years after the effective date of this final rule.

Section 71.21 General License: Use of Foreign Approved Package

Existing § 71.16 has been redesignated as § 71.21. No changes have been made to the contents of this section.

Section 71.22 General License: Fissile Material

Existing § 71.18 has been redesignated as § 71.22. The current § 71.22 has been removed. This section has been amended by consolidating and simplifying the current fissile general license provisions contained in existing §§ 71.18, 71.20, 71.22, and 71.24 into a new § 71.22. The new § 71.22, while retaining some of the provisions of the existing general licenses, principally uses mass-based limits and a Criticality Safety Index (CSI). Concentration-based limits have been removed. Exceptions relating to plutonium-beryllium sealed sources in existing §§ 71.18 and 71.22 have been relocated to new § 71.23. The values contained in new Tables 71–1 and 71–2 have been revised from the values contained in the table in existing § 71.22 and in Table 1 in existing § 71.20, respectively; and are based on new minimum critical mass calculations described in NUREG/CR–5342. In some instances, the allowable mass limit has been increased from the current limits in existing §§ 71.18, 71.20, 71.22, and 71.24; in other instances, the allowable mass limit has been reduced. The values contained in new Tables 71–1 and 71–2 are used as the variables X, Y, and Z in the equation in paragraph (e).

The title has been revised to indicate that this general license is not restricted to a specific type of fissile material shipment.

Paragraph (a) has been revised to require that fissile material shipped under this general license be contained in a DOT Type A package. Additionally, while the existing exception from subparts E and F requirements has been maintained, the DOT Type A package regulations of 49 CFR part 173 has also been specified.

Paragraph (b) remains unchanged.

Paragraph (c) has been revised to remove the specific gram limits for uranium and plutonium but retains the existing Type A quantity limit. Revised gram limits have been relocated to new Table 71–1, which is associated with new paragraphs (d) and (e). A requirement has also been added to limit the amount of special moderating materials beryllium, graphite, and hydrogenous material enriched in deuterium present in a package to less than 500 g.

Existing paragraph (d) has been removed. Revised gram limits for fissile material mixed with material having a hydrogen density greater than water (*i.e.*, a moderating effectiveness greater than H_2O) have been placed in new Table 71–1. A note has been added to new Table 71–1 to indicate that reduced mass limits apply when more than 15 percent of a mixture of moderating materials contains moderating material with a hydrogen density greater than H_2O.

New paragraph (d) has been added to require that shipments of packages containing fissile material be labeled with a CSI, that the CSI per package be less than or equal to 10.0, and that the sum of the CSIs in a shipment of multiple fissile material packages be limited to less than or equal to 50.0 for a nonexclusive use conveyance, and to less than or equal to 100.0 for an exclusive use conveyance.

Existing Paragraphs (e) and (f) have been removed.

New paragraph (e) has been added to require that the CSI be calculated via a new equation for any of the fissile nuclides. Guidance on applying the equation and the mass limit input values of Tables 71–1 and 71–2 is also contained in this paragraph.

Section 71.23 General License: Plutonium-Beryllium Special Form Material

The existing § 71.20, "General license: Fissile material, limited moderator per package," has been removed. A new section on the shipment of plutonium-beryllium (Pu-Be) special-form fissile material (*i.e.*, sealed sources) has been added as a new § 71.23. New § 71.23 consolidates regulations on shipment of Pu-Be sealed sources contained in existing §§ 71.18 and 71.22 into one location in part 71. The new § 71.23 reduces the maximum quantity of fissile plutonium Pu-Be sealed sources that could be shipped on a single conveyance through changes in the mass limits and calculation of the CSI. Currently, a Pu-Be sealed source package can contain up to 400 g of fissile plutonium with a CSI equal to 10.0. Consequently, the current conveyance limits are 4,000 g per shipment for an exclusive-use vehicle and 2000 g per shipment for a nonexclusive use vehicle. The new § 71.23 increases the maximum CSI per package from 10 to 100; however, the maximum quantity of plutonium per conveyance (*i.e.*, shipment) would be reduced to 1000 g. The 1000-g per shipment limit and 240 g of fissile plutonium limit are equivalent to those in new § 71.22(f) (1000 g per shipment and 200 g of fissile plutonium). The 240 g versus 200 g of fissile plutonium per package is due to the increased confidence that the fissile plutonium, within a sealed source capsule, would not escape from the capsule during an accident and reconfigure itself into an unfavorable geometry.

New § 71.23 has been titled: "General license: Plutonium-beryllium special form material." Paragraph (a) describes the applicability of this section, exceptions to the requirements of subparts E and F, and the requirement to ship Pu-Be sealed sources in DOT Type A packages.

Paragraph (b) requires that shipments of Pu-Be sealed sources be made under an NRC-approved QA program.

Paragraph (c) requires a 1000 g per package limit. In addition, plutonium-239 and plutonium-241 constitute only 240 g of the 1000 g limit.

Paragraph (d) requires that a CSI be calculated per paragraph (e), and the CSI must be less than or equal to 100.0. For shipments of multiple packages, the sum of the CSIs is limited to less than or equal to 50.0 for a nonexclusive use conveyance and to less than or equal to 100.0 for an exclusive use conveyance.

Paragraph (e) provides an equation to calculate the CSI for Pu-Be sources. This equation is based upon the 240-g mass limit for fissile nuclide plutonium-239 and plutonium-241 in paragraph (c).

Section 71.24 (Reserved)

Section 71.25 (Reserved)

Existing §§ 71.22 and 71.24 have been redesignated as §§ 71.24 and 71.25. New §§ 71.24 and 71.25 have been removed and reserved.

Subpart D—Application for Package Approval

Section 71.41 Demonstration of Compliance

Paragraph (a) has been revised to require that a Type B package which contains radioactive contents with

activity greater than 10^5A_2 of any radionuclide must meet the enhanced deep immersion test found in §71.61. A new paragraph (d) has been added to provide special package authorizations.

Section 71.51 Additional Requirements for Type B Packages

Paragraph (a) has been revised to remove the reference to § 71.52, because the requirements of § 71.52 have expired. Paragraph (d) has been added to require that a package which contains radioactive contents with activity greater than 10^5A_2 of any radionuclide must also meet the enhanced deep immersion test found in § 71.61.

Section 71.53 Fissile Material Exemptions (Reserved)

This section has been removed and reserved; its contents have been moved to § 71.15.

Section 71.55 General Requirements for Fissile Material Packages

New paragraphs (f) and (g) have been added. Paragraph (f) specifies design and testing for fissile material package designs for transport by aircraft, and paragraph (g) addresses UF_6 criticality exception from § 71.55(b). Additionally, as a conforming change, paragraph (b) has been updated to support new paragraph (g).

Section 71.59 Standards for Arrays of Fissile Material Packages

Paragraphs (b) and (c) have been revised to use the term CSI (criticality safety index).

Paragraph (b) has been revised to refer to a CSI rather than a TI for nuclear criticality control. The method for calculating a CSI is the same as the existing method for a TI for nuclear criticality control.

Paragraph (c) has been revised to provide direction to licensees when the CSI is exactly equal to 50 and to use plain language. Subparagraph (1) has been revised by replacing the term "(n)ot in excess of 10," with the term "(l)ess than or equal to 50." New paragraph (c)(2) has been added to provide for shipment of packages with a CSI of less than 50 on an exclusive use conveyance. The current conveyance limit of 100 has been retained. Existing paragraph (c)(2) has been redesignated as new paragraph (c)(3) and has been revised by replacing the term "(i)n excess of 10," with the term "(g)reater than 50." These three changes: (1) Provide greater clarity and mathematical consistency among paragraphs (c)(1), (c)(2), and (c)(3); (2) clarify the CSI limits for storage incident to transport; and (3) increase the CSI limit per package from 10 to 50 for shipments made with nonexclusive use conveyances.

Section 71.61 Special Requirements for Type B Packages Containing More Than 10^5A_2

This section has been revised to require an enhanced water immersion test for packages used for radioactive contents with activity greater than 10^5A_2. The title of this section has also been revised to reflect that the scope has been broadened beyond irradiated nuclear fuel.

Section 71.63 Special Requirement for Plutonium Shipments

The title has been revised to reflect only a single "requirement" rather than multiple requirements.

Paragraph (b) has been removed.

The designation of the remaining text as paragraph (a) has been removed, because only one paragraph remains. The text of former paragraph (a) has been revised to use plain language. The 0.74-TBq (20-Ci) limit and solid form requirement have been retained.

Section 71.73 Hypothetical Accident Conditions

A new paragraph (c)(2) has been added to require a crush test for fissile material packages.

Section 71.88 Air Transport of Plutonium

Paragraph (a)(2) has been revised to remove the 70-Bq/g (0.002-μCi/g) specific activity value and substitute activity concentration values for plutonium found in Appendix A, Table A–2, of this part. This revision is a conforming change to the revision to new § 71.14 to ensure consistent treatment of plutonium between these two sections.

Subpart G—Operating Controls and Procedures

Section 71.91 Records

As a conforming change to subpart H, paragraphs (b) and (c) have been redesignated as paragraphs (c) and (d), respectively, and are revised by adding the terms "certificate holder" and "applicant for a CoC." New paragraph (b) has been added to require a certificate holder to keep records on the model, serial number, and date of manufacture of a packaging. These requirements are similar to the requirements in paragraph (a), though less information is required. No change has been made to paragraph (a).

Section 71.93 Inspection and Tests

As a conforming change to subpart H, paragraphs (a) and (b) have been revised by adding the terms "certificate holder" and "applicant for a CoC." Paragraph (c) has been revised to require the certificate holder to notify the NRC before it begins fabrication of a packaging that can contain material having a decay heat load in excess of 5 kW or a maximum normal operating pressure of 103 kPa (kilo Pascals) (15 lbf/in^2) gauge. This notification could be for either fabricating a single packaging or the beginning of a campaign for fabricating multiple packagings. This notification is in accordance with the requirements of § 71.1, rather than an NRC Regional Administrator. This change in notification location reduces confusion in identifying the appropriate Regional Administrator when the certificate holder and fabrication location are overseas. Licensees have been removed from this paragraph because the NRC believes that requiring a licensee, who does not own the packaging, to notify the NRC in advance of a packaging fabrication, when the licensee may not use the packaging for years, is inappropriate and an unreasonable burden. The NRC believes that requiring certificate holders and applicants for a CoC to notify the NRC in advance of fabricating a packaging(s) would allow the NRC adequate opportunity to inspect these activities. This change is similar to the current requirement in § 72.232(d) for part 72 certificate holders or applicants for a CoC to notify the NRC 45 days before starting the fabrication of the first storage cask under a part 72 CoC. This action improves the harmonization between these two regulations in parts 71 and 72.

Section 71.95 Reports

The existing introductory text and paragraphs (a), (b), and (c) have been combined into a new paragraph (a) which requires a licensee, after requesting the certificate holder's input, to submit a written report to the NRC in certain circumstances. The requirement for the licensee to request input from the certificate holder during development of the written event report will ensure that design deficiency issues have been thoroughly considered. The licensee will also be required to provide the certificate holder with a copy of the written event report, after the report is submitted to the NRC. This will permit the certificate holder to monitor and trend the package performance information, arising from package use by multiple licensees. Additionally,

requirements on timing and submission location for the written reports have been relocated to new paragraph (c). Furthermore, the 30-day reporting requirement has been lengthened to a 60-day reporting requirement.

The existing paragraph (c) has been redesignated as paragraph (b) and revised for clarity.

New paragraphs (c) and (d) have been added to provide requirements on the timing, submission location, form, and content of the written reports.

Section 71.100 Criminal Penalties

Section 223 of the Atomic Energy Act of 1954, as amended, (the Act) provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any regulation issued under sections 161b, 161i, or 161o of the Act. The Commission stated in a final rule on "Clarification of Statutory Authority for Purposes of Criminal Enforcement" (57 FR 55082; November, 24, 1992), that substantive rules under sections 161b, 161i, or 161o of the Act include those rules that create "duties, obligations, conditions, restrictions, limitations, and prohibitions." For the NRC to consider the possibility of criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate, any substantive regulations, the NRC must have clearly identified to affected parties which regulations in part 71 are substantive rules. Accordingly, paragraph (b) of this section identifies those part 71 regulations that the NRC does not consider as substantive regulations. Thus, willful violation of, attempted violation of, or conspiracy to violate any of the regulations listed in paragraph (b) is not subject to possible criminal sanctions.

Paragraph (b) of this section has been revised as a conforming change. The NRC has reviewed new §§ 71.10 and considers that this regulation is not a substantive rule. Therefore, new §§ 71.10 has been added to the list of sections in paragraph (b). The NRC reviewed new §§ 71.9, 71.18, and 71.23 and considers that these regulations are substantive rules. Therefore, these sections have not been added to paragraph (b). Additionally, the NRC has reviewed the existing §§ 71.9, 71.10, and 71.53 and concluded these sections should be recharacterized as substantive rules. Therefore, new §§ 71.13, 71.14, and 71.18 have not been included in paragraph (b). Additionally, existing §§ 71.52 and 71.53 have been removed from paragraph (b), because these section numbers have been removed from part 71.

Subpart H—Quality Assurance

Section 71.101 Quality Assurance Requirements

Paragraph (a) has been revised by adding two new sentences to the end of the paragraph specifying responsibilities for certificate holders and applicants for a CoC.

Paragraph (b) has been revised to add the terms "certificate holder" and "applicant for a CoC." The second sentence has been revised to provide greater clarity and consistency within subpart H by referring to "the QA requirement's importance to safety."

Paragraph (c) has been revised by redesignating the existing text as paragraph (c)(1), and new text has been added on submitting QA programs in accordance with the requirements of § 71.1. New paragraph (c)(2) has been added to provide equivalent requirements on the submission of QA programs for certificate holders and applicants for a CoC.

Paragraph (f) has been revised to allow the use of existing NRC-approved part 71 and part 72 QA programs, in lieu of submitting a new QA program. Additionally, the terms "certificate holder" and "applicant for a CoC" have been added.

Paragraph (g) has been revised by making a minor change to clarify that § 34.31(b) is located in chapter I of title 10 of the Code of Federal Regulations. Additionally, as a conforming change, § 71.12(b) has been redesignated as § 71.17(b).

Section 71.103 Quality Assurance Organization

Paragraph (a) has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.105 Quality Assurance Program

Paragraphs (a) through (d) have been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.107 Package Design Control

Paragraph (a) has been revised by adding the terms "certificate holder" and "applicant for a CoC." Further, the last sentence has been revised to improve clarity and consistency within subpart H by referring to "processes that are essential to the functions of the materials, parts, and components that are important to safety."

Paragraph (b) has been revised by adding the terms "certificate holder" and "applicant for a CoC." Additionally, the last sentence of paragraph (c) has been revised by replacing the text "(c)hanges in the conditions specified in the package approval require NRC approval * * *." with "(c)hanges in the conditions specified in the CoC require NRC prior approval * * *."

Section 71.109 Procurement Document Control

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.111 Instructions, Procedures, and Drawings

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.113 Document Control

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.115 Control of Purchased Material, Equipment, and Services

Paragraphs (a) through (c) have been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.117 Identification and Control of Materials, Parts, and Components

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.119 Control of Special Processes

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.121 Internal Inspection

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.123 Test Control

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.125 Control of Measuring and Test Equipment

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.127 Handling, Storage, and Shipping Control

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.129 Inspection, Test, and Operating Status

Paragraph (a) has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.131 Nonconforming Materials, Parts, or Components

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.133 Corrective Action

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.135 Quality Assurance Records

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Section 71.137 Audits

This section has been revised by adding the terms "certificate holder" and "applicant for a CoC."

Appendix A to Part 71—Determination of A_1 and A_2

No changes have been made in paragraphs I, III, and V; however, these paragraphs have been included due to revising Appendix A, in its entirety.

Paragraph II has been revised to use plain language and has been redesignated as subparagraph II(a). The intent of existing paragraph II has not been changed; however, the reference to existing Table A–2 has been revised as a conforming change to the new Table A–3. New paragraph II(b) has been added to provide direction on determining exempt material activity concentration and exempt consignment activity values when a radionuclide has been identified as a constituent of a proposed shipment, but the individual radionuclide is not listed in Table A–2. Consequently, the structure of paragraphs II(a) and II(b) is the same. New paragraph II(c) has been added to provide direction to licensees on how to submit requests for Commission prior approval of either A_1 and A_2 values or exempt material activity concentration and exempt consignment activity values, for radionuclides that are not listed in Tables A–1 and A–2, respectively.

Paragraph IV has been revised by adding new paragraphs (e) and (f) to provide equations to use in determining a consolidated exempt material activity concentration and exempt consignment activity value when a shipment contains multiple radionuclides. The existing text describing an alternative method for calculating the A_1 or A_2 value of a mixture has been redesignated as paragraphs (c) and (d). No changes have been made from the existing equations.

Appendix A, Table A–1—A_1 and A_2 Values for Radionuclides

This Table has been revised to reflect the values from TS–R–1.

Appendix A, Table A–2—Exempt Material Activity Concentrations and Exempt Consignment Activity Limits for Radionuclides

A new Table A–2 has been added to Appendix A of part 71. This table contains the values of Exempt Material Activity Concentrations and Exempt Consignment Activity Limits for selected radionuclides. Table A–2 is referenced in new § 71.14(a)(2) and is used in § 71.14 to determine when concentrations of material are not considered radioactive material, for the purposes of transportation.

Appendix A, Table A–3—General Values for A_1 and A_2

The existing Table A–2 has been redesignated as new Table A–3, and the values have been revised to reflect the changes from TS–R–1.

Appendix A, Table A–4—Activity Mass Relationships for Uranium

The existing Table A–3 has been redesignated as new Table A–4. No changes have been made to the values contained in new Table A–4.

V. Criminal Penalties

For the purposes of section 223 of the Atomic Energy Act (AEA), the Commission is amending 10 CFR part 71 under one or more of sections 161b, 161i, or 161o of the AEA. Willful violations of the rule will be subject to criminal enforcement.

The following is a list of substantive rule sections being revised or added in this rulemaking: §§ 71.1, 71.3, 71.5, 71.8, 71.9, 71.12, 71.13, 71.14, 71.15, 71.17, 71.19, 71.20, 71.21, 71.22, 71.23, 71.61, 71.63, 71.88, 71.91, 71.93, 71.95, 71.101, 71.103, 71.105, 71.107, 71.109, 71.111, 71.113, 71.115, 71.117, 71.119, 71.121, 71.123, 71.125, 71.127, 71.129, 71.131, 71.133, 71.135, 71.137.

VI. Issues of Compatibility for Agreement States

Under the "Policy Statement on Adequacy and Compatibility of Agreement State Programs" which became effective on September 3, 1997 (62 FR 46517), NRC program elements (including regulations) are placed into four compatibility categories. In addition, NRC program elements also are identified as having particular health and safety significance or as being reserved solely to the NRC. Compatibility Category A are those program elements that are basic radiation protection standards and scientific terms and definitions that are necessary to understand radiation protection concepts. An Agreement State should adopt Category A program elements in an essentially identical manner to provide uniformity in the regulation of agreement material on a nationwide basis. Compatibility Category B are those program elements that apply to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. Compatibility Category C are those program elements that do not meet the criteria of Category A or B, but the essential objectives of which an Agreement State should adopt to avoid conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis. An Agreement State should adopt the essential objectives of the Category C program elements. Compatibility Category D are those program elements that do not meet any of the criteria of Category A, B, or C, and thus do not need to be adopted by Agreement States for purposes of compatibility. A bracket around a category means that the section may have been adopted elsewhere, and it is not necessary to adopt it again. Health and Safety (H&S) are program elements that are not required for compatibility (*i.e.*, Category D) but are identified as having a particular health and safety role (*i.e.*, adequacy) in the regulation of agreement material within the State. Although not required for compatibility, the State should adopt program elements in this category based on those of NRC that embody the essential objectives of the NRC program elements because of particular health and safety considerations. Compatibility Category NRC are those program elements that address areas of regulation that cannot be relinquished to Agreement States pursuant to the Atomic Energy Act, as amended, or provisions of title 10 of the Code of Federal Regulations. These program elements should not be adopted by Agreement States. The following table lists the part 71 revisions and their corresponding categorization under the "Policy Statement on Adequacy and Compatibility of Agreement State Programs." This table has been revised to incorporate comments received from the States of California and Wisconsin during the 30-day Agreement States comment period which began on June 3, 2003.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL

Regulation section	Section title	Compatibility category	Comments
§71.0	Purpose and Scope	D, except paragraph C is [B]	This requirement is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this requirement in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.
§71.1	Communications and Records	D	
§71.2	Interpretations	D	
§71.3	Requirements for license	[B]	This requirement is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions since it assures authorization for the transport of licensed material. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this requirement in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.
§71.4	Definitions:		
	A_1	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	A_2	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in mulitiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Carrier	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
	Certificate holder	D—for those States which have no licensees that us Type B packages. or [B]—for those States which have licensees that use Type B packages.	This term is used in the sections concerning quality assurance programs for Type B packages. Those States which have no licensees that use Type B packages are not required to adopt this definition. This definition is designated Compatibility Category B for those States which have licensees that us Type B packages because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Certificate of compliance	D—for those States which have no licensees that use Type B packages. [B]—for those States which have licensees that use Type B packages.	This term is used in the sections concerning quality assurance programs for Type B packages. Those States which have no licensees that use Type B packages are not required to adopt this definition. This definition is designated Compatibility Category B for those States which have licensees that use Type B packages because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Close reflection by water	D	This definition is not required for compatibility since it defines a term which pertains to an area reserved to NRC. A State may adopt this definition for purposes of clarity or communication. This definition can be adopted by Agreement States since it in and of itself does not convey any authority whereby a State can regulate in an exclusive NRC jurisdiction. However, if a State chooses to define the term then the definition should be essentially identical.
	Consignment	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Containment System	D	This term is not used in any section requiring Agreement State adoption.
	Conveyance	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
	Criticality safety Index	B	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. In addition, this definition is needed for a common understanding beyond a plain dictionary meaning of the term in order to implement 10 CFR 71.22, 71.23 and 71.59.
	Deuterium	B	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. In addition, this definition is needed for a common understanding beyond a plain dictionary meaning of the term in order to implement § 71.15.
	DOT	D	This term does not meet any of the criteria of Category A, B, C, or H&S because it is a widely accepted abbreviation for the U. S. Department of Transportation.
	Exclusive use	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Fissile material	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Graphite	B	This definition is needed for a common understanding beyond a plain dictionary meaning of the term in order to implement § 71.15, which has direct and significant transboundary effects.
	Licensed material	[D]	This term does not meet any of the criteria of Category A, B, C, or H&S because it is widely accepted and understood. This definition also appears in 10 CFR 20.1003. For purposes of compatibility, the language of the Part 20 definition should be used and is assigned to Compatibility Category D.
	Low Specific Activity (LSA) material	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
	Low toxicity alpha emitters	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Maximum normal operating pressure	D	The definition of the term "maximum normal operating pressure" was changed from a compatibility category "B" to a category "D." This term is not used in any section requiring Agreement State adoption; it relates to the heat conditions in § 71.71(c)(1), which is designated a category "NRC." This definition is not required for compatibility since it defines a term which pertains to an area reserved to the NRC. A State may adopt this definition for purposes of clarity or communication. This definition can be adopted by Agreement States since it is and of itself does not convey any authority whereby a State can regulate in an exclusive NRC jurisdiction. However, if a State chooses to define this term, then the definition should be essentially identical.
	Natural thorium	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Normal form radioactive material	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Optimum interspersed hydrogenous moderation.	D	This definition is not required for compatibility since it defines a term which pertains to an area reserved to NRC. A State may adopt this definition for purposes of clarity or communication. This definition can be adopted by Agreement States since it in and of itself does not convey any authority whereby a State can regulate in an exclusive NRC jurisdiction. However, if a State chooses to define the term, then the definition should be essentially identical.
	Package	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
	Fissile material package or Type AF package, Type BF, Type B(U)F package, or Type B(M)F.	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Type A package	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Type B package	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Packaging	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Special form radioactive material	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Specific activity	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Spent Nuclear Fuel or Spent Fuel	D	This definition is not required compatibility since it defines a term which pertains to an area reserved to NRC. A State may adopt this definition for purposes of clarity or communication. This definition can be adopted by Agreement States since it in and of itself does not convey any authority whereby a State can regulate in an exclusive NRC jurisdiction. However, if a State chooses to define the term, then the definition should be essentially identical.
	State	D.	

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
	Surface Contaminated Object (SCO)	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Transport Index	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, then the adoption of this definition is not necessary.
	Type A quantity	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Type B quantity	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Unirradiated uranium	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
	Uranium—natural, depleted and enriched.	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this definition in another portion of its regulations, such as the State's DOT regulations, then the adoption of this definition is not necessary.
§ 71.5	Transportation of Licensed Material	[B]	This requirement is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary.
§ 71.6	Information collection requirements: OMB approval.	D.	

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§71.7	Completeness and accuracy of Information.	D.	
§71.8	Deliberate misconduct	C	The Commission determined in response to SECY–97–156 that Agreement States should adopt the essential objectives of this provision. The essential objectives of this provision are provided in paragraphs (a), (b), (c), and (d). If deliberate misconduct and wrongdoing issues involving Agreement State licensees were not pursued and closed by Agreement States, then a potential gap may be created between NRC and Agreement State programs.
§71.9	Employee Protection	D	This provision does not meet any of the criteria for designations Category A, B, C, or health and safety. Thus, it does not need to be adopted by Agreement States.
§71.10	Public Inspection of Application	D	This provision does not meet any of the criteria for designations Category A, B, C, or health and safety. Thus, it does not need to be adopted by Agreement States.
§71.11	[RESERVED].		
§71.12	Specific exemptions	D.	
§71.13	Exemption for physicians	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary.
§71.14	Exemptions for low level material	[B]-paragraph (a) NRC—paragraph (b)	Paragraph (a) is designated as a Compatibility Category B because of its significant transboundary impacts with respect to the establishment of exempt materials in the area of transportation. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this requirement in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary. Paragraph (b) is designated Compatibility Category "NRC." This provision is reserved to the NRC because it delineates NRC's authority from that of DOT's in the area of transportation of radioactive materials. These provisions relinquish to DOT the control of types of shipment that are of low risk both from radiation and criticality standpoints. Further, to ensure that only low criticality risk shipments are included in the area of DOT authority, these provisions restrict the exemption to Type A and low-specific-activity (LSA) or surface contaminated objects (SCOs) that either contain no fissile material or satisfy the fissile material exemption requirements in §71.11. Finally, this provision is reserved to the NRC because this exemption does not relieve licensees from DOT requirements by reason of NRC's authority. Thus, Agreement States should not adopt this provision in order to retain their ability to implement all of 49 CFR as directed by DOT.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§71.15	Exemptions from classification as fissile material.	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary. Note: This provision was previously designated "NRC." It was changed to "B" to ensure compatibility between NRC and Agreement States in an area that has significant and direct transboundary implications. During further staff review, it was noted that the requirements in this section "Fissile material exemptions" is the same as those of DOT in 49 CFR 173.453, "Fissile materials exceptions." Staff noted that States adopt these DOT regulations as a part of their transportation regulations. Staff also noted that in accordance with §150.11, an Agreement State can regulate the following fissile materials: U–235 in quantities not exceeding 350 grams, U–233 in quantities not exceeding 200 grams; plutonium in quantities not exceeding 200 grams, or any combination of these materials that would be sufficient to form a critical mass. These requirements would apply to the materials Agreement States regulate. Thus, the compatibility of this requirement was changed to a "[B]," which indicates that if a State has adopted this provision as a part of the State's DOT regulations, then the adoption of this provision is not necessary.
§71.16	[RESERVED].		
§71.17	General license: NRC—approved package.	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.
§71.19	Previously approved package	NRC	This provision is reserved to the NRC because it addresses packages intended for both the storage and transportation of spent fuel.
§71.20	General license: DOT specification container material.	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.
§71.21	General license: Use of foreign approved package.	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§71.22	General license: Fissile material	[B]	This provision designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary. **Note:** A similar provision was previously designated "NRC." It was changed to "B" to ensure compatibility between NRC and Agreement States in an area that has significant and direct transboundary implications. During further staff review, it was noted that in accordance with 10 CFR 150.11, an Agreement State can regulate the following fissile materials: U–235 in quantities not exceeding 350 grams, U–233 in quantities not exceeding 200 grams; plutonium in quantities not exceeding 200 grams, or any combination of these materials that would be sufficient to form a critical mass. These requirements would apply to the materials Agreement States regulate. Thus, the compatibility of this requirement was changed to a "[B]," which indicates that if a State has adopted this provision as a part of the State's DOT regulations, then the adoption of this provision is not necessary.
§71.23	General license: Plutonium-beryllium special form material.	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary.
§71.24	[RESERVED].		
§71.25	[RESERVED].		
§71.31	Contents of Application	NRC.	
§71.33.	Package description	NRC.	
§71.35	Package evaluation	NRC.	
§71.37	Quality Assurance	NRC.	
§71.38	Renewal of a certificate of compliance or quality assurance program approval.	NRC.	
§71.39	Requirements for additional information.	NRC.	
§71.41	Demonstration of Compliance	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§71.43	General Standards for all packages ..	NRC.	
§71.45	Lifting and tie-down Standards for all packages.	NRC.	
§71.47	External radiation Standards for all packages.	[B]	This requirement was changed from a compatibility category "NRC" to "[B]." This provision was changed because it establishes the external radiation standards for all transportation packages. It is essential that the Agreement States adopt this provision in an essentially identical manner because they have direct and significant transboundary effects. The bracket,"B," indicates that a State should adopt this provision in an essentially identical manner because of its direct and significant transboundary effects; however, if a State has adopted this provision as a part of its DOT regulations, then the adoption of this section is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§ 71.51	Additional Requirements for Type B packages.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.53	[RESERVED].		
§ 71.55	General Requirements for fissile material packages.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.57	[RESERVED].		
§ 71.59	Standards for arrays of fissile material packages.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulator authority.
§ 71.61	Special requirements for Type B packages containing more than 10^5A_2.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.63	Special requirements for plutonium shipments.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.64	Special requirements for plutonium air shipments.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.65	Additional Requirements	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.71	Normal conditions of transport	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.73	Hypothetical accident conditions	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.74	Accident conditions for air transport of plutonium.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.75	Qualification of special form radioactive material.	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.77	Qualification of LSA–III material	NRC	This provision is designated NRC because it addresses an area reserved to NRC's regulatory authority.
§ 71.81	Applicability of operating controls	D	This requirement was changed from a compatibility category "B" to "D." This designation was changed because it does not meet any of the criteria for designation as Category A, B, C or Health and Safety and is not required for the purposes of compatibility.
§ 71.83	Assumptions as to unknown properties.	[B]	This requirement was changed from a compatibility category "NRC" to "[B]." Agreement States can regulate fissile material below 350g. This provision is needed to address fissile material regulated by the States and to assure that a regulatory gap in the regulations of these materials is not created. The bracket, "b," indicates that a State should adopt this provision in an essentially identical manner because of its direct and significant transboundary effects; however, if a State has adopted this provision as a part of its DOT regulations, then the adoption of this section is not necessary.
§ 71.85	Preliminary determinations	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§ 71.87	Routine determinations	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this provision is not necessary.
§ 71.88	Air transport of plutonium	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this regulation is not necessary.
§ 71.89	Opening instructions	[B]	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this regulation is not necessary.
§ 71.91	Records	D	This provision does not meet any of the criteria for designations Category A, B, C, or health and safety. Thus, it does not need to be adopted by Agreement States.
§ 71.93	Inspection and tests	D	This provision does not meet any of the criteria for designations Category A, B, C, or health and safety. Thus, it does not need to be adopted by Agreement States.
§ 71.95	Reports	D	This provision does not meet any of the criteria for designations Category A, B, C, or health and safety. Thus, it does not need to be adopted by Agreement States.
§ 71.97	Advance notification of shipment of irradiated reactor fuel and nuclear waste.	B	This provision is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner.
§ 71.99	Violations	D.	
§ 71.100	Criminal penalties	D.	

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§71.101	Quality assurance requirements	D—Paragraphs (a), (b), and (c)(1) are designated D for those States which have no users of Type B packages-other than Industrial Radiography**. C—Paragraphs (a), (b) and (c)(1) are designated C for those States which have users of Type B packages-other than Industrial Radiography.**. D—paragraph (f) ..... C—paragraph (g) NRC-paragraphs (c)(2), (d) and (e). **Note: 10 CFR 71.101(g) indicates that QA programs for industrial radiography Type B package users are covered by 10 CFR 34.31(b). It also indicated that this section satisfies §71.12 (b) and thus would satisfy those secitons referenced in this provision (§§71.101 through 71.137).	Paragraphs (a), (b), and (c)(1) are designated Category C and the essential objectives of these provisions should be adopted by those Agreement States which have licensees who use Type B packages. These provisions are designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If these provisions are not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objective of paragraph (a) is that each licensee who uses a Type B package is responsible for the quality assurance requirements which apply to the use of a package. The essential objective of paragraph (b) is that each licensee who uses a Type B package shall establish, amintain, and execute a quality assurance program. The essential objective of paragraph (c)(1) is that each licensee who uses a Type B package shall, prior to the use of any package for the shipment of any material subject to this part, obtain approval of its quality assurance program by the regulatory agency. Paragraph (f) is not required for compatibility because the States have the felxibility to determine whether they wish to accept a previously approved quality assurance program.
§71.103	Quality assurance organization	D—for those States which have no users of Type B packages-other than Industrial Radiography**. [C]—Paragraph (a) is designated [C] for those States which have users of Type B packages-other than Industrial Radiography**. C—Paragraph (b) is designated C for those States which have users of Type B packages-other than Industrial Radiography**. D—paragraphs (d), (e), and (f) ..... **Note: §71.101 (g) indicates that QA programs for industrial radiography Type B package users are covered by §34.31(b). It also indicated that this section satisfies §71.12(b) and thus would satisfy those sections referenced in this provision §§71.101 through 71.137).	For paragraph (a), those States which have licenses that use Type B packages, and have adopted the essential objectives of §71.101(a), it is not necessary for them to adopt this provision again. Paragraph (b) is designated as a Category C, and the essential objectives of these provisions should be adopted by those Agreement States which have licensees who use Type B packages. This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If these provisions are not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objective of paragraph (b) is that each licensee who uses a Type B package should verify by procedures such as checking, auditing, and inspection, that activities affecting the safety-related functions have been performed correctly.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§ 71.105	Quality assurance program	D—for those States which have no users of Type B packages—other than Industrial Radiography. C—Paragraphs (a), (c), and (d) and [C]—paragraph b for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101(g) indicates that QA programs for industrial radiography Type B package users are covered by 10 CFR 34.31(b). It also indicated that this section satisfies § 71.12(b) and thus would satisfy those sections referenced in this provision (§§ 71.101 through 71.137).	Para. (a) is designated [C] and para. (b) is designated C for those Agreement States with licensees that use Type B packages and the essential objectives of these provisions should be adopted by those Agreement States. These provisions are designated Category C because the QA of Type B packages is an activity that is needed in order to avoid a nationwide regulatory gap in the regulation of the transportation of radioactive materials. If these provisions are not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objective of para. (a) is that each licensee who uses a Type B package shall document the quality assurance program by written procedures or instructions and shall carry out the program in accordance with those procedures throughout the period during which the packaging is used, and shall identify the material and components covered by the quality-assurance program. The essential objective of para. (b) is that each licensee who uses a Type B package shall control activities affecting the safety-related functions of the Type B package. Para. (b) is bracketed "C", because the essential objective of this provision is captured by § 71.103(b); if an Agreement State adopts the essential objectives of § 71.103(b), it is not necessary to adopt this provision again. The essential objective of para. (c) is that the licensee and certificate holder shall base its QA program on items listed in (1) through (5). The essential objective of para. (d) is that the licensee and certificate holder shall provide training of personnel performing activities affecting the quality of the package to assure proficiency in their knowledge of the QA program; review the status and adequacy of the QA program at established intervals; and regular management review of the QA program by all cognizant organizations.
§ 71.107	Package design control	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.109	Procurement document control	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.111	Instructions, procedures, and drawings.	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.113	Document control	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.115	Control of purchased material, equipment, and services.	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.117	Identification and control of materials, parts, and components.	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.119	Control of special processes	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.121	Internal Inspection	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§ 71.123	Test control	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§71.125	Control of measuring and test equipment.	NRC	This provision is reserved to the NRC because it addresses the design, fabrication, modification, and approval of Type B packages.
§71.127	Handling, storage, and shipping control.	D—for those States which have no users of Type B packages—other than Industrial Radiography. [C]—for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101 (g) indicates that QA programs for industrial radiography Type B package users are covered by §34.31(b). It also indicated that this section satisfies §71.12(b) and thus would satisfy those sections referenced in this provision (§§71.101 through 71.137).	This provision is designated Category C for those States which have licensees that use Type B packages. This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid nationwide gas in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdications. For those States which have licensees that use Type B packages, and have adopted the essential objectives of §71.105, it is not necessary for them to adopt this provision again.
§71.129	Inspection, test, and operating status	D—for those States which have no users of Type B packages—other than Industrial Radiography**. [C]—for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101 (g) indicates that QA programs for industrial radiography Type B package users are covered by §34.31(b). It also indicated that this section satisfies §71.12(b) and thus would satisfy those sections referenced in this provision (§§71.101 through 71.137).	This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdictions. For those States which have licensees that use Type B packages, and have adopted the essential objectives of §71.105, it is not necessary for them to adopt this provision again.
§71.131	Nonconforming materials, parts, or components.	D—for those States which have no users of Type B packages-other than Industrial Radiography**. [C]—for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101 (g) indicates that QA programs for industrial radiography Type B package users are covered by §34.31(b). It also indicated that this section satisfies §71.12(b) and thus would satisfy those sections referenced in this provision (§§71.101 through 71.137).	This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdictions. For those States which have licensees that use Type B packages, and have adopted the essential objectives of §71.105, it is not necessary for them to adopt this provision again.
§71.133	Corrective action	D—for those States which have no users of Type B packages—other than Industrial Radiography**. C—for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101 (g) indicates that QA programs for industrial radiography Type B package users are covered by §34.31(b). It also indicated that this section satisfies §71.12(b) and thus would satisfy those sections referenced in this provision (§§71.101 through 71.137).	This provision is designated Category C for those States which have licensees that use Type B packages. This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objective of this provision is that each licensee who uses a Type B package shall establish measures to assure that conditions adverse to quality, such as deficiencies, deviations, defective material and equipment, and nonconformances, are promptly identified and corrected.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL—Continued

Regulation section	Section title	Compatibility category	Comments
§ 71.135	Quality assurance records	D—for those States which have no users of Type B packages—other than industrial Radiography**. C—for those States which have users of Type B packages—other than industrial radiography**. **Note: 10 CFR 71.101(g) indicates that QA programs for industrial radiography Type B package users are covered by § 34.31(b). It also indicated that this section satisfies § 71.12(b) and thus would satisfy those sections referenced in this provision (§§ 71.101 through 71.137).	This provision is designated a Category C for those States which have licensees that use Type B packages. This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objective of this provision is that each licensee who uses a Type B package shall maintain sufficient written records to demonstrate compliance with the quality assurance program.
§ 71.137	Audits	D—for those States which have no users of Type B packages—other than Industrial Radiography**. C—for those States which have users of Type B packages—other than Industrial Radiography**. **Note: 10 CFR 71.101(g) indicates that QA program for industrial radiography Type B package users are covered by § 34.31(b). It also indicated that this section satisfies § 71.12(b) and thus would satisfy those sections referenced in this provision §§ 71.101 through 71.137).	This provision is designated a Category C for those States which have licensees that use Type B packages. This provision is designated Category C because the quality assurance of Type B packages is an activity that is needed in order to avoid a nationwide gap in the regulation of the transportation of radioactive materials. If this provision is not adopted, this could result in undesirable consequences in multiple jurisdictions. The essential objectives of this provision are that each licensee who uses a Type B package shall carry out a system of planned and periodic audits to: (1) verify compliance with all aspects of the quality assurance program, (2) determine the effectiveness of the program, (3) verify that the audits are performed by appropriately trained personnel, (4) audits performed in accordance with procedures; (5) audit results documented and reviewed by appropriate management; and (6) follow-up actions are taken as necessary.
Appendix A	Determination of A_1 and A_2	[B]	This definition is designated Compatibility Category B because it applies to activities that have direct and significant effects in multiple jurisdictions. An Agreement State should adopt Category B program elements in an essentially identical manner. The bracket, "B," indicates that if a State has adopted this provision in another portion of its regulations, such as the State's DOT regulations, then the adoption of this requirement is not necessary.

VII. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104–113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standard bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this rule, the NRC considered but decided not to adopt the ASME Code, Section III, Division 3, as described in Issue 14. However, NRC has amended its transportation regulations to make them compatible with the IAEA transportation standards. This action does not constitute the establishment of a standard that establishes generally applicable requirements.

VIII. Environmental Assessment: Finding of No Significant Environmental Impact

The Commission has prepared an environmental assessment entitled Final Environmental Assessment (EA) of Major Revision of 10 CFR part 71 (NUREG/CR–6711, December 2003), on this regulation. The EA is available on the NRC rulemaking Web site (*http://ruleforum.llnl.gov*) and is also available for inspection in the NRC Public Document Room, 11555 Rockville Pike, Room O–1F21, Rockville, MD. The following is a brief summary of the EA.

The EA grouped the proposed action into 19 different changes to part 71, which could be adopted either all together as one list or independently in a partial list. Of these 19 changes, the following 4 meet the NRC's categorical exclusion criteria:

- Changes to Various Definitions (Issue 9);
- Expansion of Part 71 Quality Assurance Requirements to Certificate of Compliance (CoC) Holders (Issue 13);
- Change Authority for Dual-Purpose Package Certificate Holders (Issue 15); and
- Modifications of Event Reporting Requirements (Issue 19).

None of the remaining 15 changes are expected to cause a significant impact to human health, safety, or the environment, whether issued altogether or individually. In fact, most of the

changes would have negligible effects or result in slight improvements in health, safety, and environmental protection. In particular, the following changes are primarily administrative in nature, would not cause any new negative impacts, and would result in the beneficial effect of simplifying and/or harmonizing the NRC's regulations with TS–R–1:

- Changing Part 71 to the International System of Units (SI) Only (Issue 1);
- Revision of A_1 and A_2 (Issue 3);
- A new requirement to display the Criticality Safety Index on shipping packages of fissile material (Issue 5);
- A provision to "grandfather" older shipping packages under the part 71 requirements in existence when their Certificates of Compliance were issued (Issue 8); and
- Procedures for approval of special arrangements for shipment of special packages (Issue 12).

The following changes would result in slight net improvements in health, safety, and environmental protection:

- Addition of uranium hexafluoride package requirements (Issue 4);
- Strengthening the requirements in § 71.61 to ensure package containment in deep submersion scenarios (Issue 7);
- Adoption of the crush test for fissile material package design (Issue 10);
- Adoption of fissile material package design requirements for transport by aircraft (Issue 11); and
- Adoption of the ASME Code for spent fuel transportation casks (Issue 14).

The proposal to change the existing 70-Bq/g (0.002-μCi/g) level to radionuclide-specific activity limits (Issue 2) is expected to have mixed, although overall minor, effects. For radionuclides with new exemption values that are lower than the current limit, there could be a decrease in the number of exempted shipments and a commensurate slight increase in the level of protection. For radionuclides with new exemption values that are higher than the current limit, there could be an increase in the number of exempted shipments and a commensurate slight increase in associated radiation exposures. However, IAEA and the NRC have determined that this change would not significantly increase the risk to individuals.

The addition of the Type C package and low level dispersible material concepts (Issue 6) would result in mixed, although overall minor, effects. If the same number of packages are handled, the radiation doses to workers loading and unloading Type C packages shipped by air will be slightly higher than the doses to workers loading and unloading other kinds of packages shipped by other means. At the same time, "incident-free" doses during the shipping of Type C packages are expected to be slightly reduced compared to baseline conditions, while the risks associated with accidents during shipping could be slightly increased or decreased depending on the shipping scenario.

Changes to transportation regulations for fissile materials actually consist of 17 individual recommendations for revisions to part 71 (Issue 16). Ten of these recommendations are expected to result in no impact, as they simply clarify definitions, consolidate related requirements into single sections, or streamline the regulations. Four of the recommendations will result in small improvements to health, safety, and environmental protection by eliminating confusion among licensees and/or providing added assurance for critical safety. The last two recommendations, which would revise exemptions for low-level material and remove or modify provisions related to the shipment of Pu-Be neutron sources, are expected to significantly improve criticality safety.

Changes to the requirements for plutonium shipments in § 71.63 (PRM–71–12) could result in a slight increase in the probability and consequences of accidental releases, primarily when and if plutonium is shipped in liquid form. However, most plutonium shipments are either related to the disposition of plutonium wastes or to the production of mixed oxides, neither of which involve the shipment of a liquid solution of plutonium.

No changes have been identified for the issue related to surface contamination limits as applied to spent fuel and high level waste (Issue 18). The issue was included in the proposed rule in response to Commission direction in SRM–SECY–00–0117. NRC is seeking input on whether the NRC should address this issue in future rulemaking activities. As a result, no regulatory options were developed, and therefore no environmental assessment conducted.

The Commission has determined, under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in subpart A of 10 CFR part 51, that this rule is not a major Federal action significantly affecting the quality of the human environment, and therefore an environmental impact statement (EIS) is not required.

The Commission's "Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes," NUREG–0170 [14], dated December 1977, is NRC's generic EIS, covering all types of radioactive material transportation by all modes (road, rail, air, and water). From the Commission's latest survey of radioactive material shipments and their characteristics, "Transport of Radioactive Material in the United States," SAND 84–7174, April 1985, the NRC concluded that current radioactive material shipments are not so different from those evaluated in NUREG–0170 as to invalidate the results or conclusions of that EIS. The environmental assessment of the impacts associated with this rulemaking is evaluated in Final Environmental Assessment (EA) of Major Revision of 10 CFR part 71 (NUREG/CR–6711, December 2003).

NUREG–0170 established the nonaccident related radiation exposures associated with transportation of radioactive material in the United States as 98 person-Sv (9800 person-rem) which, based on the conservative linear radiation dose hypothesis, resulted in a maximum of 1.7 genetic effects and 1.2 latent cancer effects per year. More than half this impact resulted from shipment of medical-use radioactive materials. Accident related impacts were established at a maximum of one genetic effect and one latent cancer fatality for 200 years of transporting radioactive materials. The principal nonradiological impacts were found to be two injuries per year and less than one accidental death per 4 years. In contrast, nonaccident related radiation exposures and accident related impacts associated with this rulemaking would not change from the impact of the current part 71 requirements (*i.e.*, no increase or decrease). Nonradiological traffic injuries and nonradiological traffic deaths would not change. These impacts are judged to be insignificant compared with the baseline impacts established in NUREG–0170.

IX. Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). These

[14] Copies of NUREG–0170 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013–7082. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is also available for inspection and copying for a fee in the NRC Public Document Room, 11555 Rockville Pike, Room O–1F21, Rockville, MD.

requirements were approved by the Office of Management and Budget, approval number 3150–0008.

The burden to the public for these information collections is estimated to average 19.2 hours per licensee, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments on any aspect of these information collections, including suggestions for reducing the burden, to the Records Management Branch (T–5F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, or by Internet electronic mail to *INFOCOLLECTS@nrc.gov;* and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB–10202,(3150–0008), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

X. Regulatory Analysis

The Commission has prepared a regulatory analysis entitled "Final Regulatory Analysis of Major Revision of 10 CFR part 71—NUREG/CR–6713, December 2003. "To support the discussions of the proposed changes, selected material from this regulatory analysis has been included earlier under each issue. The analysis examines the costs and benefits of the alternatives considered by the Commission. The regulatory analysis is available on the NRC rulemaking Web site, and is also available for inspection at the NRC Public Document Room, 11555 Rockville Pike, Room O–1F21, Rockville, MD.

XI. Regulatory Flexibility Act Certification

In accordance with the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the Commission certifies that this rule will not have a significant economic impact on a substantial number of small entities. This rule affects NRC licensees, including operators of nuclear power plants, who transport or deliver to a carrier for transport, relatively large quantities of radioactive material in a single package. These companies do not generally fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the size standards adopted by the NRC (10 CFR 2.810).

Only one small entity commented on the proposed changes suggesting that small entities would be negatively affected by the rule. Reviewing records of licensed QA programs, NRC found that only 15 of the 127 NRC-licensed QA progams were small entities. Furthermore, of these 15 companies, NRC staff expects that only two or three would be negatively affected by the final rule, given these companies' lines of business and day-to-day operations. Based on these data, it is believed there will not be significant economic impacts for a substantial number of small entities.

XII. Backfit Analysis

The NRC has determined that the backfit rule does not apply to this rule; therefore, a backfit analysis is not required for this rule because these amendments do not involve any provisions that would require backfits as defined in 10 CFR chapter I.

List of Subjects in 10 CFR Part 71

Criminal penalties, Hazardous materials transportation, Nuclear materials, Packaging and containers, Reporting and recordkeeping requirements.

■ For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the Commission is adopting the following amendments to 10 CFR part 71.

PART 71—PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL

■ 1. The authority citation for part 71 continues to read as follows:

Authority: Secs. 53, 57, 62, 63, 81, 161, 182, 183, 234, 68 Stat. 930, 932, 933, 935, 948, 953, 954, as amended, sec. 1701, 106 Stat. 2951, 2952, 2953 (42 U.S.C. 2073, 2077, 2092, 2093, 2111, 2201, 2232, 2233, 2297f); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note).

Section 71.97 also issued under sec. 301, Pub. L. 96–295, 94 Stat. 789–790.

■ 2. Subparts A, B, and C to part 71 are revised to read as follows:

Subpart A—General Provisions

Sec.

Subpart B—Exemptions

Subpart C—General Licenses

Subpart A—General Provisions

§ 71.0 Purpose and scope.

(a) This part establishes—

(1) Requirements for packaging, preparation for shipment, and transportation of licensed material; and

(2) Procedures and standards for NRC approval of packaging and shipping procedures for fissile material and for a quantity of other licensed material in excess of a Type A quantity.

(b) The packaging and transport of licensed material are also subject to other parts of this chapter (*e.g.*, 10 CFR parts 20, 21, 30, 40, 70, and 73) and to the regulations of other agencies (*e.g.*, the U.S. Department of Transportation (DOT) and the U.S. Postal Service) [1] having jurisdiction over means of transport. The requirements of this part are in addition to, and not in substitution for, other requirements.

(c) The regulations in this part apply to any licensee authorized by specific or general license issued by the Commission to receive, possess, use, or transfer licensed material, if the licensee delivers that material to a carrier for transport, transports the material outside the site of usage as specified in the NRC license, or transports that material on public highways. No provision of this part authorizes possession of licensed material.

(d)(1) Exemptions from the requirement for license in § 71.3 are specified in § 71.14. General licenses for which no NRC package approval is

[1] Postal Service manual (Domestic Mail Manual), Section 124, which is incorporated by reference at 39 CFR 111.1.

required are issued in §§ 71.20 through 71.23. The general license in § 71.17 requires that an NRC certificate of compliance or other package approval be issued for the package to be used under this general license.

(2) Application for package approval must be completed in accordance with subpart D of this part, demonstrating that the design of the package to be used satisfies the package approval standards contained in subpart E of this part, as related to the tests of subpart F of this part.

(3) A licensee transporting licensed material, or delivering licensed material to a carrier for transport, shall comply with the operating control requirements of subpart G of this part; the quality assurance requirements of subpart H of this part; and the general provisions of subpart A of this part, including DOT regulations referenced in § 71.5.

(e) The regulations of this part apply to any person holding, or applying for, a certificate of compliance, issued pursuant to this part, for a package intended for the transportation of radioactive material, outside the confines of a licensee's facility or authorized place of use.

(f) The regulations in this part apply to any person required to obtain a certificate of compliance, or an approved compliance plan, pursuant to part 76 of this chapter, if the person delivers radioactive material to a common or contract carrier for transport or transports the material outside the confines of the person's plant or other authorized place of use.

(g) This part also gives notice to all persons who knowingly provide to any licensee, certificate holder, quality assurance program approval holder, applicant for a license, certificate, or quality assurance program approval, or to a contractor, or subcontractor of any of them, components, equipment, materials, or other goods or services, that relate to a licensee's, certificate holder's, quality assurance program approval holder's, or applicant's activities subject to this part, that they may be individually subject to NRC enforcement action for violation of § 71.8.

§ 71.1 Communications and records.

(a) Except where otherwise specified, all communications and reports concerning the regulations in this part and applications filed under them should be sent by mail addressed: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, by hand delivery to the NRC's offices at 11555 Rockville Pike, Rockville, Maryland; or, where practicable, by electronic submission, for example, via Electronic Information Exchange, or CD–ROM. Electronic submissions must be made in a manner that enables the NRC to receive, read, authenticate, distribute, and archive the submission, and process and retrieve it a single page at a time. Detailed guidance on making electronic submissions can be obtained by visiting the NRC's Web site at *http://www.nrc.gov/site-help/eie.html*, by calling (301) 415–6030, by e-mail to *EIE@nrc.gov*, or by writing the Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. The guidance discusses, among other topics, the formats the NRC can accept, the use of electronic signatures, and the treatment of nonpublic information.

(b) Each record required by this part must be legible throughout the retention period specified by each Commission regulation. The record may be the original or a reproduced copy or a microform provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period. The record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records such as letters, drawings, and specifications must include all pertinent information such as stamps, initials, and signatures. The licensee shall maintain adequate safeguards against tampering with and loss of records.

§ 71.2 Interpretations.

Except as specifically authorized by the Commission in writing, no interpretation of the meaning of the regulations in this part by any officer or employee of the Commission, other than a written interpretation by the General Counsel, will be recognized to be binding upon the Commission.

§ 71.3 Requirement for license.

Except as authorized in a general license or a specific license issued by the Commission, or as exempted in this part, no licensee may—

(a) Deliver licensed material to a carrier for transport; or

(b) Transport licensed material.

§ 71.4 Definitions.

The following terms are as defined here for the purpose of this part. To ensure compatibility with international transportation standards, all limits in this part are given in terms of dual units: The International System of Units (SI) followed or preceded by U.S. standard or customary units. The U.S. customary units are not exact equivalents but are rounded to a convenient value, providing a functionally equivalent unit. For the purpose of this part, either unit may be used.

A_1 means the maximum activity of special form radioactive material permitted in a Type A package. This value is either listed in Appendix A, Table A–1, of this part, or may be derived in accordance with the procedures prescribed in Appendix A of this part.

A_2 means the maximum activity of radioactive material, other than special form material, LSA, and SCO material, permitted in a Type A package. This value is either listed in Appendix A, Table A–1, of this part, or may be derived in accordance with the procedures prescribed in Appendix A of this part.

Carrier means a person engaged in the transportation of passengers or property by land or water as a common, contract, or private carrier, or by civil aircraft.

Certificate holder means a person who has been issued a certificate of compliance or other package approval by the Commission.

Certificate of Compliance (CoC) means the certificate issued by the Commission under subpart D of this part which approves the design of a package for the transportation of radioactive material.

Close reflection by water means immediate contact by water of sufficient thickness for maximum reflection of neutrons.

Consignment means each shipment of a package or groups of packages or load of radioactive material offered by a shipper for transport.

Containment system means the assembly of components of the packaging intended to retain the radioactive material during transport.

Conveyance means:

(1) For transport by public highway or rail any transport vehicle or large freight container;

(2) For transport by water any vessel, or any hold, compartment, or defined deck area of a vessel including any transport vehicle on board the vessel; and

(3) For transport by any aircraft.

Criticality Safety Index (CSI) means the dimensionless number (rounded up to the next tenth) assigned to and placed on the label of a fissile material package, to designate the degree of control of

accumulation of packages containing fissile material during transportation. Determination of the criticality safety index is described in §§ 71.22, 71.23, and 71.59.

Deuterium means, for the purposes of §§ 71.15 and 71.22, deuterium and any deuterium compounds, including heavy water, in which the ratio of deuterium atoms to hydrogen atoms exceeds 1:5000.

DOT means the U.S. Department of Transportation.

Exclusive use means the sole use by a single consignor of a conveyance for which all initial, intermediate, and final loading and unloading are carried out in accordance with the direction of the consignor or consignee. The consignor and the carrier must ensure that any loading or unloading is performed by personnel having radiological training and resources appropriate for safe handling of the consignment. The consignor must issue specific instructions, in writing, for maintenance of exclusive use shipment controls, and include them with the shipping paper information provided to the carrier by the consignor.

Fissile material means the radionuclides uranium-233, uranium-235, plutonium-239, and plutonium-241, or any combination of these radionuclides. Fissile material means the fissile nuclides themselves, not material containing fissile nuclides. Unirradiated natural uranium and depleted uranium and natural uranium or depleted uranium, that has been irradiated in thermal reactors only, are not included in this definition. Certain exclusions from fissile material controls are provided in § 71.15.

Graphite means, for the purposes of §§ 71.15 and 71.22, graphite with a boron equivalent content less than 5 parts per million and density greater than 1.5 grams per cubic centimeter.

Licensed material means byproduct, source, or special nuclear material received, possessed, used, or transferred under a general or specific license issued by the Commission pursuant to the regulations in this chapter.

Low Specific Activity (LSA) material means radioactive material with limited specific activity which is nonfissile or is excepted under § 71.15, and which satisfies the descriptions and limits set forth below. Shielding materials surrounding the LSA material may not be considered in determining the estimated average specific activity of the package contents. LSA material must be in one of three groups:

(1) LSA—I.

(i) Uranium and thorium ores, concentrates of uranium and thorium ores, and other ores containing naturally occurring radioactive radionuclides which are not intended to be processed for the use of these radionuclides;

(ii) Solid unirradiated natural uranium or depleted uranium or natural thorium or their solid or liquid compounds or mixtures;

(iii) Radioactive material for which the A_2 value is unlimited; or

(iv) Other radioactive material in which the activity is distributed throughout and the estimated average specific activity does not exceed 30 times the value for exempt material activity concentration determined in accordance with Appendix A.

(2) LSA—II.

(i) Water with tritium concentration up to 0.8 TBq/liter (20.0 Ci/liter); or

(ii) Other material in which the activity is distributed throughout and the average specific activity does not exceed 10^{-4} A_2/g for solids and gases, and $10^{-5}A_2$/g for liquids.

(3) LSA—III. Solids (*e.g.*, consolidated wastes, activated materials), excluding powders, that satisfy the requirements of § 71.77, in which:

(i) The radioactive material is distributed throughout a solid or a collection of solid objects, or is essentially uniformly distributed in a solid compact binding agent (such as concrete, bitumen, ceramic, etc.);

(ii) The radioactive material is relatively insoluble, or it is intrinsically contained in a relatively insoluble material, so that even under loss of packaging, the loss of radioactive material per package by leaching, when placed in water for 7 days, would not exceed 0.1 A_2; and

(iii) The estimated average specific activity of the solid does not exceed 2×10^{-3} A_2/g.

Low toxicity alpha emitters means natural uranium, depleted uranium, natural thorium; uranium-235, uranium-238, thorium-232, thorium-228 or thorium-230 when contained in ores or physical or chemical concentrates or tailings; or alpha emitters with a half-life of less than 10 days.

Maximum normal operating pressure means the maximum gauge pressure that would develop in the containment system in a period of 1 year under the heat condition specified in § 71.71(c)(1), in the absence of venting, external cooling by an ancillary system, or operational controls during transport.

Natural thorium means thorium with the naturally occurring distribution of thorium isotopes (essentially 100 weight percent thorium-232).

Normal form radioactive material means radioactive material that has not been demonstrated to qualify as "special form radioactive material."

Optimum interspersed hydrogenous moderation means the presence of hydrogenous material between packages to such an extent that the maximum nuclear reactivity results.

Package means the packaging together with its radioactive contents as presented for transport.

(1) Fissile material package or Type AF package, Type BF package, Type B(U)F package, or Type B(M)F package means a fissile material packaging together with its fissile material contents.

(2) Type A package means a Type A packaging together with its radioactive contents. A Type A package is defined and must comply with the DOT regulations in 49 CFR part 173.

(3) Type B package means a Type B packaging together with its radioactive contents. On approval, a Type B package design is designated by NRC as B(U) unless the package has a maximum normal operating pressure of more than 700 kPa (100 lbs/in^2) gauge or a pressure relief device that would allow the release of radioactive material to the environment under the tests specified in § 71.73 (hypothetical accident conditions), in which case it will receive a designation B(M). B(U) refers to the need for unilateral approval of international shipments; B(M) refers to the need for multilateral approval of international shipments. There is no distinction made in how packages with these designations may be used in domestic transportation. To determine their distinction for international transportation, *see* DOT regulations in 49 CFR Part 173. A Type B package approved before September 6, 1983, was designated only as Type B. Limitations on its use are specified in § 71.19.

Packaging means the assembly of components necessary to ensure compliance with the packaging requirements of this part. It may consist of one or more receptacles, absorbent materials, spacing structures, thermal insulation, radiation shielding, and devices for cooling or absorbing mechanical shocks. The vehicle, tie-down system, and auxiliary equipment may be designated as part of the packaging.

Special form radioactive material means radioactive material that satisfies the following conditions:

(1) It is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;

(2) The piece or capsule has at least one dimension not less than 5 mm (0.2 in); and

(3) It satisfies the requirements of § 71.75. A special form encapsulation designed in accordance with the requirements of § 71.4 in effect on June 30, 1983 (*see* 10 CFR part 71, revised as of January 1, 1983), and constructed before July 1, 1985, and a special form encapsulation designed in accordance with the requirements of § 71.4 in effect on March 31, 1996 (*see* 10 CFR part 71, revised as of January 1, 1983), and constructed before April 1, 1998, may continue to be used. Any other special form encapsulation must meet the specifications of this definition.

Specific activity of a radionuclide means the radioactivity of the radionuclide per unit mass of that nuclide. The specific activity of a material in which the radionuclide is essentially uniformly distributed is the radioactivity per unit mass of the material.

Spent nuclear fuel or Spent fuel means fuel that has been withdrawn from a nuclear reactor following irradiation, has undergone at least 1 year's decay since being used as a source of energy in a power reactor, and has not been chemically separated into its constituent elements by reprocessing. Spent fuel includes the special nuclear material, byproduct material, source material, and other radioactive materials associated with fuel assemblies.

State means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Surface Contaminated Object (SCO) means a solid object that is not itself classed as radioactive material, but which has radioactive material distributed on any of its surfaces. SCO must be in one of two groups with surface activity not exceeding the following limits:

(1) SCO–I: A solid object on which:

(i) The nonfixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4 Bq/cm^2 (10^{-4} microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 0.4 Bq/cm^2 (10^{-5} microcurie/cm^2) for all other alpha emitters;

(ii) The fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^{-4} Bq/cm^2 (1.0 microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 4×10^3 Bq/cm^2 (0.1 microcurie/cm^2) for all other alpha emitters; and

(iii) The nonfixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^4 Bq/cm^2 (1 microcurie/cm^2) for beta and gamma and low toxicity alpha emitters, or 4×103 Bq/cm^2 (0.1 microcurie/cm^2) for all other alpha emitters.

(2) SCO–II: A solid object on which the limits for SCO–I are exceeded and on which:

(i) The nonfixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 ^{2}) does not exceed 400 Bq/cm^2 (10^{-2} microcurie/cm^2) for beta and gamma and low toxicity alpha emitters or 40 Bq/cm^2 (10^{-3} microcurie/cm^2) for all other alpha emitters;

(ii) The fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 8×10^5 Bq/cm^2 (20 microcuries/cm^2) for beta and gamma and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 (2 microcuries/cm^2) for all other alpha emitters; and

(iii) The nonfixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 ^{2}) does not exceed 8×10^5 Bq/cm^2 (20 microcuries/cm^2) for beta and gamma and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 (2 microcuries/cm^2) for all other alpha emitters.

Transport index (TI) means the dimensionless number (rounded up to the next tenth) placed on the label of a package, to designate the degree of control to be exercised by the carrier during transportation. The transport index is the number determined by multiplying the maximum radiation level in millisievert (mSv) per hour at 1 meter (3.3 ft) from the external surface of the package by 100 (equivalent to the maximum radiation level in millirem per hour at 1 meter (3.3 ft)).

Type A quantity means a quantity of radioactive material, the aggregate radioactivity of which does not exceed A_1 for special form radioactive material, or A_2, for normal form radioactive material, where A_1 and A_2 are given in Table A–1 of this part, or may be determined by procedures described in Appendix A of this part.

Type B quantity means a quantity of radioactive material greater than a Type A quantity.

Unirradiated uranium means uranium containing not more than 2×10^3 Bq of plutonium per gram of uranium-235, not more than 9×10^6 Bq of fission products per gram of uranium-235, and not more than 5×10^{-3} g of uranium-236 per gram of uranium-235.

Uranium—natural, depleted, enriched:

(1) Natural uranium means uranium with the naturally occurring distribution of uranium isotopes (approximately 0.711 weight percent uranium-235, and the remainder by weight essentially uranium-238).

(2) Depleted uranium means uranium containing less uranium-235 than the naturally occurring distribution of uranium isotopes.

(3) Enriched uranium means uranium containing more uranium-235 than the naturally occurring distribution of uranium isotopes.

§ 71.5 Transportation of licensed material.

(a) Each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the DOT regulations in 49 CFR parts 170 through 189 appropriate to the mode of transport.

(1) The licensee shall particularly note DOT regulations in the following areas:

(i) Packaging—49 CFR part 173: subparts A, B, and I.

(ii) Marking and labeling—49 CFR part 172: subpart D, §§ 172.400 through 172.407, §§ 172.436 through 172.440, and subpart E.

(iii) Placarding—49 CFR part 172: subpart F, especially §§ 172.500 through 172.519, 172.556, and appendices B and C.

(iv) Accident reporting—49 CFR part 171: §§ 171.15 and 171.16.

(v) Shipping papers and emergency information—49 CFR part 172: subparts C and G.

(vi) Hazardous material employee training—49 CFR part 172: subpart H.

(vii) Hazardous material shipper/carrier registration—49 CFR part 107: subpart G.

(2) The licensee shall also note DOT regulations pertaining to the following modes of transportation:

(i) Rail—49 CFR part 174: subparts A through D and K.

(ii) Air—49 CFR part 175.

(iii) Vessel—49 CFR part 176: subparts A through F and M.

(iv) Public Highway—49 CFR part 177 and parts 390 through 397.

(b) If DOT regulations are not applicable to a shipment of licensed material, the licensee shall conform to the standards and requirements of the DOT specified in paragraph (a) of this section to the same extent as if the shipment or transportation were subject to DOT regulations. A request for

modification, waiver, or exemption from those requirements, and any notification referred to in those requirements, must be filed with, or made to, the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

§ 71.6 Information collection requirements: OMB approval.

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB has approved the information collection requirements contained in this part under control number 3150–0008.

(b) The approved information collection requirements contained in this part appear in §§ 71.5, 71.7, 71.9, 71.12, 71.17, 71.19, 71.20, 71.22, 71.23, 71.31, 71.33, 71.35, 71.37, 71.38, 71.39, 71.41, 71.47, 71.85, 71.87, 71.89, 71.91, 71.93, 71.95, 71.97, 71.101, 71.103, 71.105, 71.107, 71.109, 71.111, 71.113, 71.115, 71.117, 71.119, 71.121, 71.123, 71.125, 71.127, 71.129, 71.131, 71.133, 71.135, 71.137, and Appendix A, Paragraph II.

§ 71.7 Completeness and accuracy of information.

(a) Information provided to the Commission by a licensee, certificate holder, or an applicant for a license or CoC; or information required by statute or by the Commission's regulations, orders, license or CoC conditions, to be maintained by the licensee or certificate holder, must be complete and accurate in all material respects.

(b) Each licensee, certificate holder, or applicant for a license or CoC must notify the Commission of information identified by the licensee, certificate holder, or applicant for a license or CoC as having, for the regulated activity, a significant implication for public health and safety or common defense and security. A licensee, certificate holder, or an applicant for a license or CoC violates this paragraph only if the licensee, certificate holder, or applicant for a license or CoC fails to notify the Commission of information that the licensee, certificate holder, or applicant for a license or CoC has identified as having a significant implication for public health and safety or common defense and security. Notification must be provided to the Administrator of the appropriate Regional Office within 2 working days of identifying the information. This requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.

§ 71.8 Deliberate misconduct.

(a) This section applies to any—

(1) Licensee;

(2) Certificate holder;

(3) Quality assurance program approval holder;

(4) Applicant for a license, certificate, or quality assurance program approval;

(5) Contractor (including a supplier or consultant) or subcontractor, to any person identified in paragraph (a)(4) of this section; or

(6) Employees of any person identified in paragraphs (a)(1) through (a)(5) of this section.

(b) A person identified in paragraph (a) of this section who knowingly provides to any entity, listed in paragraphs (a)(1) through (a)(5) of this section, any components, materials, or other goods or services that relate to a licensee's, certificate holder's, quality assurance program approval holder's, or applicant's activities subject to this part may not:

(1) Engage in deliberate misconduct that causes or would have caused, if not detected, a licensee, certificate holder, quality assurance program approval holder, or any applicant to be in violation of any rule, regulation, or order; or any term, condition or limitation of any license, certificate, or approval issued by the Commission; or

(2) Deliberately submit to the NRC, a licensee, a certificate holder, quality assurance program approval holder, an applicant for a license, certificate or quality assurance program approval, or a licensee's, applicant's, certificate holder's, or quality assurance program approval holder's contractor or subcontractor, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

(c) A person who violates paragraph (b)(1) or (b)(2) of this section may be subject to enforcement action in accordance with the procedures in 10 CFR part 2, subpart B.

(d) For the purposes of paragraph (b)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:

(1) Would cause a licensee, certificate holder, quality assurance program approval holder, or applicant for a license, certificate, or quality assurance program approval to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license or certificate issued by the Commission; or

(2) Constitutes a violation of a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, certificate holder, quality assurance program approval holder, applicant, or the contractor or subcontractor of any of them.

§ 71.9 Employee protection.

(a) Discrimination by a Commission licensee, certificate holder, an applicant for a Commission license or a CoC, or a contractor or subcontractor of any of these, against an employee for engaging in certain protected activities, is prohibited. Discrimination includes discharge and other actions that relate to compensation, terms, conditions, or privileges of employment. The protected activities are established in section 211 of the Energy Reorganization Act of 1974, as amended, and in general are related to the administration or enforcement of a requirement imposed under the Atomic Energy Act of 1954, as amended, or the Energy Reorganization Act of 1974, as amended.

(1) The protected activities include, but are not limited to:

(i) Providing the Commission or his or her employer information about alleged violations of either of the statutes named in paragraph (a) of this section or possible violations of requirements imposed under either of those statutes;

(ii) Refusing to engage in any practice made unlawful under either of the statutes named in paragraph (a) of this section or under these requirements if the employee has identified the alleged illegality to the employer;

(iii) Requesting the Commission to institute action against his or her employer for the administration or enforcement of these requirements;

(iv) Testifying in any Commission proceeding, or before Congress, or at any Federal or State proceeding regarding any provision (or proposed provision) of either of the statutes named in paragraph (a) of this section; and

(v) Assisting or participating in, or is about to assist or participate in, these activities.

(2) These activities are protected even if no formal proceeding is actually initiated as a result of the employee's assistance or participation.

(3) This section has no application to any employee alleging discrimination prohibited by this section who, acting without direction from his or her employer (or the employer's agent),

deliberately causes a violation of any requirement of the Energy Reorganization Act of 1974, as amended, or the Atomic Energy Act of 1954, as amended.

(b) Any employee who believes that he or she has been discharged or otherwise discriminated against by any person for engaging in protected activities specified in paragraph (a)(1) of this section may seek a remedy for the discharge or discrimination through an administrative proceeding in the Department of Labor. The administrative proceeding must be initiated within 180 days after an alleged violation occurs. The employee may do this by filing a complaint alleging the violation with the Department of Labor, Employment Standards Administration, Wage and Hour Division. The Department of Labor may order reinstatement, back pay, and compensatory damages.

(c) A violation of paragraph (a), (e), or (f) of this section by a Commission licensee, certificate holder, applicant for a Commission license or a CoC, or a contractor or subcontractor of any of these may be grounds for:

(1) Denial, revocation, or suspension of the license or the CoC;

(2) Imposition of a civil penalty on the licensee or applicant; or

(3) Other enforcement action.

(d) Actions taken by an employer, or others, which adversely affect an employee may be predicated upon nondiscriminatory grounds. The prohibition applies when the adverse action occurs because the employee has engaged in protected activities. An employee's engagement in protected activities does not automatically render him or her immune from discharge or discipline for legitimate reasons or from adverse action dictated by nonprohibited considerations.

(e)(1) Each licensee, certificate holder, and applicant for a license or CoC must prominently post the current revision of NRC Form 3, "Notice to Employees," referenced in § 19.11(c) of this chapter. This form must be posted at locations sufficient to permit employees protected by this section to observe a copy on the way to or from their place of work. The premises must be posted not later than 30 days after an application is docketed and remain posted while the application is pending before the Commission, during the term of the license or CoC, and for 30 days following license or CoC termination.

(2) Copies of NRC Form 3 may be obtained by writing to the Regional Administrator of the appropriate U.S. Nuclear Regulatory Commission Regional Office listed in Appendix D to part 20 of this chapter or by calling the NRC Publishing Services Branch at 301–415–5877.

(f) No agreement affecting the compensation, terms, conditions, or privileges of employment, including an agreement to settle a complaint filed by an employee with the Department of Labor pursuant to section 211 of the Energy Reorganization Act of 1974, as amended, may contain any provision which would prohibit, restrict, or otherwise discourage an employee from participating in a protected activity as defined in paragraph (a)(1) of this section including, but not limited to, providing information to the NRC or to his or her employer on potential violations or other matters within NRC's regulatory responsibilities.

§ 71.10 Public inspection of application.

Applications for approval of a package design under this part, which are submitted to the Commission, may be made available for public inspection, in accordance with provisions of parts 2 and 9 of this chapter. This includes an application to amend or revise an existing package design, any associated documents and drawings submitted with the application, and any responses to NRC requests for additional information.

§ 71.11 [Reserved]

Subpart B—Exemptions

§ 71.12 Specific exemptions.

On application of any interested person or on its own initiative, the Commission may grant any exemption from the requirements of the regulations in this part that it determines is authorized by law and will not endanger life or property nor the common defense and security.

§ 71.13 Exemption of physicians.

Any physician licensed by a State to dispense drugs in the practice of medicine is exempt from § 71.5 with respect to transport by the physician of licensed material for use in the practice of medicine. However, any physician operating under this exemption must be licensed under 10 CFR part 35 or the equivalent Agreement State regulations.

§ 71.14 Exemption for low-level materials.

(a) A licensee is exempt from all the requirements of this part with respect to shipment or carriage of the following low-level materials:

(1) Natural material and ores containing naturally occurring radionuclides that are not intended to be processed for use of these radionuclides, provided the activity concentration of the material does not exceed 10 times the values specified in Appendix A, Table A–2, of this part.

(2) Materials for which the activity concentration is not greater than the activity concentration values specified in Appendix A, Table A–2 of this part, or for which the consignment activity is not greater than the limit for an exempt consignment found in Appendix A, Table A–2, of this part.

(b) A licensee is exempt from all the requirements of this part, other than §§ 71.5 and 71.88, with respect to shipment or carriage of the following packages, provided the packages do not contain any fissile material, or the material is exempt from classification as fissile material under § 71.15:

(1) A package that contains no more than a Type A quantity of radioactive material;

(2) A package transported within the United States that contains no more than 0.74 TBq (20 Ci) of special form plutonium-244; or

(3) The package contains only LSA or SCO radioactive material, provided—

(i) That the LSA or SCO material has an external radiation dose of less than or equal to 10 mSv/h (1 rem/h), at a distance of 3 m from the unshielded material; or

(ii) That the package contains only LSA–I or SCO–I material.

§ 71.15 Exemption from classification as fissile material.

Fissile material meeting the requirements of at least one of the paragraphs (a) through (f) of this section are exempt from classification as fissile material and from the fissile material package standards of §§ 71.55 and 71.59, but are subject to all other requirements of this part, except as noted.

(a) Individual package containing 2 grams or less fissile material.

(b) Individual or bulk packaging containing 15 grams or less of fissile material provided the package has at least 200 grams of solid nonfissile material for every gram of fissile material. Lead, beryllium, graphite, and hydrogenous material enriched in deuterium may be present in the package but must not be included in determining the required mass for solid nonfissile material.

(c)(1) Low concentrations of solid fissile material commingled with solid nonfissile material, provided that:

(i) There is at least 2000 grams of solid nonfissile material for every gram of fissile material, and

(ii) There is no more than 180 grams of fissile material distributed within 360 kg of contiguous nonfissile material.

(2) Lead, beryllium, graphite, and hydrogenous material enriched in

deuterium may be present in the package but must not be included in determining the required mass of solid nonfissile material.

(d) Uranium enriched in uranium-235 to a maximum of 1 percent by weight, and with total plutonium and uranium-233 content of up to 1 percent of the mass of uranium-235, provided that the mass of any beryllium, graphite, and hydrogenous material enriched in deuterium constitutes less than 5 percent of the uranium mass.

(e) Liquid solutions of uranyl nitrate enriched in uranium-235 to a maximum of 2 percent by mass, with a total plutonium and uranium-233 content not exceeding 0.002 percent of the mass of uranium, and with a minimum nitrogen to uranium atomic ratio (N/U) of 2. The material must be contained in at least a DOT Type A package.

(f) Packages containing, individually, a total plutonium mass of not more than 1000 grams, of which not more than 20 percent by mass may consist of plutonium-239, plutonium-241, or any combination of these radionuclides.

§ 71.16 [Reserved]

Subpart C—General Licenses

§ 71.17 General license: NRC-approved package.

(a) A general license is issued to any licensee of the Commission to transport, or to deliver to a carrier for transport, licensed material in a package for which a license, certificate of compliance (CoC), or other approval has been issued by the NRC.

(b) This general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of this part.

(c) This general license applies only to a licensee who—

(1) Has a copy of the CoC, or other approval of the package, and has the drawings and other documents referenced in the approval relating to the use and maintenance of the packaging and to the actions to be taken before shipment;

(2) Complies with the terms and conditions of the license, certificate, or other approval, as applicable, and the applicable requirements of subparts A, G, and H of this part; and

(3) Before the licensee's first use of the package, submits in writing to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, using an appropriate method listed in § 71.1(a), the licensee's name and license number and the package identification number specified in the package approval.

(d) This general license applies only when the package approval authorizes use of the package under this general license.

(e) For a Type B or fissile material package, the design of which was approved by NRC before April 1, 1996, the general license is subject to the additional restrictions of § 71.19.

§ 71.18 [Reserved]

§ 71.19 Previously approved package.

(a) A Type B package previously approved by NRC, but not designated as B(U), B(M), B(U)F, or B(M)F in the identification number of the NRC CoC, or Type AF packages approved by the NRC prior to September 6, 1983, may be used under the general license of § 71.17 with the following additional conditions:

(1) Fabrication of the packaging was satisfactorily completed by August 31, 1986, as demonstrated by application of its model number in accordance with § 71.85(c);

(2) A serial number that uniquely identifies each packaging which conforms to the approved design is assigned to, and legibly and durably marked on, the outside of each packaging; and

(3) Paragraph (a) of this section expires (insert date 4 years after the effective date of this final rule). The effective date of this final rule is October 1, 2004.

(b) A Type B(U) package, a Type B(M) package, or a fissile material package, previously approved by the NRC but without the designation "-85" in the identification number of the NRC CoC, may be used under the general license of § 71.17 with the following additional conditions:

(1) Fabrication of the package is satisfactorily completed by April 1, 1999, as demonstrated by application of its model number in accordance with § 71.85(c);

(2) A package used for a shipment to a location outside the United States is subject to multilateral approval as defined in DOT regulations at 49 CFR 173.403; and

(3) A serial number which uniquely identifies each packaging which conforms to the approved design is assigned to and legibly and durably marked on the outside of each packaging.

(c) A Type B(U) package, a Type B(M) package, or a fissile material package previously approved by the NRC with the designation "-85" in the identification number of the NRC CoC, may be used under the general license of § 71.17 with the following additional conditions:

(1) Fabrication of the package must be satisfactorily completed by December 31, 2006, as demonstrated by application of its model number in accordance with § 71.85(c); and

(2) After December 31, 2003, a package used for a shipment to a location outside the United States is subject to multilateral approval as defined in DOT regulations at 49 CFR 173.403.

(d) NRC will approve modifications to the design and authorized contents of a Type B package, or a fissile material package, previously approved by NRC, provided—

(1) The modifications of a Type B package are not significant with respect to the design, operating characteristics, or safe performance of the containment system, when the package is subjected to the tests specified in §§ 71.71 and 71.73;

(2) The modifications of a fissile material package are not significant, with respect to the prevention of criticality, when the package is subjected to the tests specified in §§ 71.71 and 71.73; and

(3) The modifications to the package satisfy the requirements of this part.

(e) NRC will revise the package identification number to designate previously approved package designs as B, BF, AF, B(U), B(M), B(U)F, B(M)F, B(U)-85, B(U)F–85, B(M)-85, B(M)F–85, or AF–85 as appropriate, and with the identification number suffix "-96" after receipt of an application demonstrating that the design meets the requirements of this part.

§ 71.20 General license: DOT specification container.

(a) A general license is issued to any licensee of the Commission to transport, or to deliver to a carrier for transport, licensed material in a specification container for fissile material or for a Type B quantity of radioactive material as specified in DOT regulations at 49 CFR parts 173 and 178.

(b) This general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of this part.

(c) This general license applies only to a licensee who—

(1) Has a copy of the specification; and

(2) Complies with the terms and conditions of the specification and the applicable requirements of subparts A, G, and H of this part.

(d) This general license is subject to the limitation that the specification

container may not be used for a shipment to a location outside the United States, except by multilateral approval, as defined in DOT regulations at 49 CFR 173.403.

(e) This section expires October 1, 2008.

§ 71.21 General license: Use of foreign approved package.

(a) A general license is issued to any licensee of the Commission to transport, or to deliver to a carrier for transport, licensed material in a package, the design of which has been approved in a foreign national competent authority certificate, that has been revalidated by DOT as meeting the applicable requirements of 49 CFR 171.12.

(b) Except as otherwise provided in this section, the general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the applicable provisions of subpart H of this part.

(c) This general license applies only to shipments made to or from locations outside the United States.

(d) This general license applies only to a licensee who—

(1) Has a copy of the applicable certificate, the revalidation, and the drawings and other documents referenced in the certificate, relating to the use and maintenance of the packaging and to the actions to be taken before shipment; and

(2) Complies with the terms and conditions of the certificate and revalidation, and with the applicable requirements of subparts A, G, and H of this part. With respect to the quality assurance provisions of subpart H of this part, the licensee is exempt from design, construction, and fabrication considerations.

§ 71.22 General license: Fissile material.

(a) A general license is issued to any licensee of the Commission to transport fissile material, or to deliver fissile material to a carrier for transport, if the material is shipped in accordance with this section. The fissile material need not be contained in a package which meets the standards of subparts E and F of this part; however, the material must be contained in a Type A package. The Type A package must also meet the DOT requirements of 49 CFR 173.417(a).

(b) The general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of this part.

(c) The general license applies only when a package's contents:

(1) Contain less than a Type A quantity of fissile material; and

(2) Contain less than 500 total grams of beryllium, graphite, or hydrogenous material enriched in deuterium.

(d) The general license applies only to packages containing fissile material that are labeled with a CSI which:

(1) Has been determined in accordance with paragraph (e) of this section;

(2) Has a value less than or equal to 10; and

(3) For a shipment of multiple packages containing fissile material, the sum of the CSIs must be less than or equal to 50 (for shipment on a nonexclusive use conveyance) and less than or equal to 100 (for shipment on an exclusive use conveyance).

(e)(1) The value for the CSI must be greater than or equal to the number calculated by the following equation:

$$CSI = 10\left[\frac{\text{grams of } ^{235}U}{X} + \frac{\text{grams of } ^{233}U}{Y} + \frac{\text{grams of Pu}}{Z}\right];$$

(2) The calculated CSI must be rounded up to the first decimal place;

(3) The values of X, Y, and Z used in the CSI equation must be taken from Tables 71–1 or 71–2, as appropriate;

(4) If Table 71–2 is used to obtain the value of X, then the values for the terms in the equation for uranium-233 and plutonium must be assumed to be zero; and

(5) Table 71–1 values for X, Y, and Z must be used to determine the CSI if:

(i) Uranium-233 is present in the package;

(ii) The mass of plutonium exceeds 1 percent of the mass of uranium-235;

(iii) The uranium is of unknown uranium-235 enrichment or greater than 24 weight percent enrichment; or

(iv) Substances having a moderating effectiveness (*i.e.*, an average hydrogen density greater than H_2O) (*e.g.*, certain hydrocarbon oils or plastics) are present in any form, except as polyethylene used for packing or wrapping.

TABLE 71–1.—MASS LIMITS FOR GENERAL LICENSE PACKAGES CONTAINING MIXED QUANTITIES OF FISSILE MATERIAL OR URANIUM-235 OF UNKNOWN ENRICHMENT PER § 71.22(E)

Fissile material	Fissile material mass mixed with moderating substances having an average hydrogen density less than or equal to H_2O (grams)	Fissile material mass mixed with moderating substances having an average hydrogen density greater than H_2O[a] (grams)
^{235}U (X)	60	38
^{233}U (Y)	43	27
^{239}Pu or ^{241}Pu (Z)	37	24

[a] When mixtures of moderating substances are present, the lower mass limits shall be used if more than 15 percent of the moderating substance has an average hydrogen density greater than H_2O.

TABLE 71–2.—MASS LIMITS FOR GENERAL LICENSE PACKAGES CONTAINING URANIUM-235 OF KNOWN ENRICHMENT PER § 71.22(E)

Uranium enrichment in weight percent of ^{235}U not exceeding	Fissile material mass of ^{235}U (X) (grams)
24	60
20	63
15	67
11	72
10	76
9.5	78
9	81
8.5	82
8	85
7.5	88
7	90
6.5	93
6	97
5.5	102
5	108
4.5	114
4	120
3.5	132
3	150
2.5	180
2	246
1.5	408
1.35	480
1	1,020
0.92	1,800

TABLE 71–2.—MASS LIMITS FOR GENERAL LICENSE PACKAGES CONTAINING URANIUM-235 OF KNOWN ENRICHMENT PER § 71.22(E)—Continued

§ 71.23 General license: Plutonium-beryllium special form material.

(a) A general license is issued to any licensee of the Commission to transport fissile material in the form of plutonium-beryllium (Pu-Be) special form sealed sources, or to deliver Pu-Be sealed sources to a carrier for transport, if the material is shipped in accordance with this section. This material need not be contained in a package which meets the standards of subparts E and F of this part; however, the material must be contained in a Type A package. The Type A package must also meet the DOT requirements of 49 CFR 173.417(a).

(b) The general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of this part.

(c) The general license applies only when a package's contents:

(1) Contain less than a Type A quantity of material; and

(2) Contain less than 1000 g of plutonium, provided that: plutonium-239, plutonium-241, or any combination of these radionuclides, constitutes less than 240 g of the total quantity of plutonium in the package.

(d) The general license applies only to packages labeled with a CSI which:

(1) Has been determined in accordance with paragraph (e) of this section;

(2) Has a value less than or equal to 100; and

(3) For a shipment of multiple packages containing Pu-Be sealed sources, the sum of the CSIs must be less than or equal to 50 (for shipment on a nonexclusive use conveyance) and less than or equal to 100 (for shipment on an exclusive use conveyance).

(e)(1) The value for the CSI must be greater than or equal to the number calculated by the following equation:

$$CSI = 10\left[\frac{\text{grams of } ^{239}Pu + \text{grams of } ^{241}Pu}{24}\right]; \text{ and}$$

(2) The calculated CSI must be rounded up to the first decimal place.

§ 71.24 [Reserved]

§ 71.25 [Reserved]

■ 3. In § 71.41, paragraph (a) is revised, and a new paragraph (d) is added to read as follows:

§ 71.41 Demonstration of compliance.

(a) The effects on a package of the tests specified in § 71.71 ("Normal conditions of transport"), and the tests specified in § 71.73 ("Hypothetical accident conditions"), and § 71.61 ("Special requirements for Type B packages containing more than 105 A_2"), must be evaluated by subjecting a specimen or scale model to a specific test, or by another method of demonstration acceptable to the Commission, as appropriate for the particular feature being considered.

* * * * *

(d) Packages for which compliance with the other provisions of these regulations is impracticable shall not be transported except under special package authorization. Provided the applicant demonstrates that compliance with the other provisions of the regulations is impracticable and that the requisite standards of safety established by these regulations have been demonstrated through means alternative to the other provisions, a special package authorization may be approved for one-time shipments. The applicant shall demonstrate that the overall level of safety in transport for these shipments is at least equivalent to that which would be provided if all the applicable requirements had been met.

■ 4. In § 71.51, the introductory text of paragraph (a) is revised, and a new paragraph (d) is added to read as follows:

§ 71.51 Additional requirements for Type B packages.

(a) A Type B package, in addition to satisfying the requirements of §§ 71.41 through 71.47, must be designed, constructed, and prepared for shipment so that under the tests specified in:

* * * * *

(d) For packages which contain radioactive contents with activity greater than 105 A_2, the requirements of § 71.61 must be met.

§ 71.53 [Reserved]

■ 5. Section 71.53 is removed and reserved.

■ 6. In § 71.55, the introductory text of paragraph (b) is revised, and new paragraphs (f) and (g) are added to read as follows:

§ 71.55 General requirements for fissile material packages.

* * * * *

(b) Except as provided in paragraph (c) or (g) of this section, a package used for the shipment of fissile material must be so designed and constructed and its contents so limited that it would be subcritical if water were to leak into the containment system, or liquid contents were to leak out of the containment system so that, under the following conditions, maximum reactivity of the fissile material would be attained:

* * * * *

(f) For fissile material package designs to be transported by air:

(1) The package must be designed and constructed, and its contents limited so that it would be subcritical, assuming reflection by 20 cm (7.9 in) of water but no water inleakage, when subjected to sequential application of:

(i) The free drop test in § 71.73(c)(1);

(ii) The crush test in § 71.73(c)(2);

(iii) A puncture test, for packages of 250 kg or more, consisting of a free drop of the specimen through a distance of 3 m (120 in) in a position for which maximum damage is expected at the conclusion of the test sequence, onto the upper end of a solid, vertical, cylindrical, mild steel probe mounted on an essentially unyielding, horizontal surface. The probe must be 20 cm (7.9 in) in diameter, with the striking end forming the frustum of a right circular cone with the dimensions of 30 cm height, 2.5 cm top diameter, and a top edge rounded to a radius of not more than 6 mm (0.25 in). For packages less than 250 kg, the puncture test must be the same, except that a 250 kg probe must be dropped onto the specimen which must be placed on the surface; and

(iv) The thermal test in § 71.73(c)(4), except that the duration of the test must be 60 minutes.

(2) The package must be designed and constructed, and its contents limited, so that it would be subcritical, assuming reflection by 20 cm (7.9 in) of water but no water inleakage, when subjected to an impact on an unyielding surface at a velocity of 90 m/s normal to the surface, at such orientation so as to result in maximum damage. A separate, undamaged specimen can be used for this evaluation.

(3) Allowance may not be made for the special design features in paragraph (c) of this section, unless water leakage into or out of void spaces is prevented following application of the tests in paragraphs (f)(1) and (f)(2) of this section, and subsequent application of the immersion test in § 71.73(c)(5).

(g) Packages containing uranium hexafluoride only are excepted from the requirements of paragraph (b) of this section provided that:

(1) Following the tests specified in § 71.73 ("Hypothetical accident conditions"), there is no physical contact between the valve body and any other component of the packaging, other than at its original point of attachment, and the valve remains leak tight;

(2) There is an adequate quality control in the manufacture, maintenance, and repair of packagings;

(3) Each package is tested to demonstrate closure before each shipment; and

(4) The uranium is enriched to not more than 5 weight percent uranium-235.

■ 7. In § 71.59, paragraphs (b) and (c) are revised to read as follows:

§ 71.59 Standards for arrays of fissile material packages.

* * * * *

(b) The CSI must be determined by dividing the number 50 by the value of "N" derived using the procedures specified in paragraph (a) of this section. The value of the CSI may be zero provided that an unlimited number of packages are subcritical, such that the value of "N" is effectively equal to infinity under the procedures specified in paragraph (a) of this section. Any CSI greater than zero must be rounded up to the first decimal place.

(c) For a fissile material package which is assigned a CSI value—

(1) Less than or equal to 50, that package may be shipped by a carrier in a nonexclusive use conveyance, provided the sum of the CSIs is limited to less than or equal to 50.

(2) Less than or equal to 50, that package may be shipped by a carrier in an exclusive use conveyance, provided the sum of the CSIs is limited to less than or equal to 100.

(3) Greater than 50, that package must be shipped by a carrier in an exclusive use conveyance, provided the sum of the CSIs is limited to less than or equal to 100.

■ 8. Section 71.61 is revised to read as follows:

§ 71.61 Special requirements for Type B packages containing more than 10^5A_2.

A Type B package containing more than 10^5A_2 must be designed so that its undamaged containment system can withstand an external water pressure of 2 MPa (290 psi) for a period of not less than 1 hour without collapse, buckling, or inleakage of water.

■ 9. Section 71.63 is revised to read as follows:

§ 71.63 Special requirement for plutonium shipments.

Shipments containing plutonium must be made with the contents in solid form, if the contents contain greater than 0.74 TBq (20 Ci) of plutonium.

■ 10. In § 71.73, paragraph (c)(2) is revised to read as follows:

§ 71.73 Hypothetical accident conditions.

* * * * *

(c) * * *

(2) *Crush.* Subjection of the specimen to a dynamic crush test by positioning the specimen on a flat, essentially unyielding horizontal surface so as to suffer maximum damage by the drop of a 500-kg (1100-lb) mass from 9 m (30 ft) onto the specimen. The mass must consist of a solid mild steel plate 1 m (40 in) by 1 m (40 in) and must fall in a horizontal attitude. The crush test is required only when the specimen has a mass not greater than 500 kg (1100 lb), an overall density not greater than 1000 kg/m^3 (62.4 lb/ft^3) based on external dimension, and radioactive contents greater than 1000 A_2 not as special form radioactive material. For packages containing fissile material, the radioactive contents greater than 1000 A_2 criterion does not apply.

* * * * *

■ 11. In § 71.88, paragraph (a)(2) is revised to read as follows:

§ 71.88 Air transport of plutonium.

(a) * * *

(2) The plutonium is contained in a material in which the specific activity is less than or equal to the activity concentration values for plutonium specified in Appendix A, Table A–2, of this part, and in which the radioactivity is essentially uniformly distributed; or

* * * * *

■ 12. In § 71.91, paragraphs (b) and (c) are revised, and a new paragraph (d) is added to read as follows:

§ 71.91 Records.

* * * * *

(b) Each certificate holder shall maintain, for a period of 3 years after the life of the packaging to which they apply, records identifying the packaging by model number, serial number, and date of manufacture.

(c) The licensee, certificate holder, and an applicant for a CoC, shall make available to the Commission for inspection, upon reasonable notice, all records required by this part. Records are only valid if stamped, initialed, or signed and dated by authorized personnel, or otherwise authenticated.

(d) The licensee, certificate holder, and an applicant for a CoC shall maintain sufficient written records to furnish evidence of the quality of packaging. The records to be maintained include results of the determinations required by § 71.85; design, fabrication,

and assembly records; results of reviews, inspections, tests, and audits; results of monitoring work performance and materials analyses; and results of maintenance, modification, and repair activities. Inspection, test, and audit records must identify the inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted. These records must be retained for 3 years after the life of the packaging to which they apply.

■ 13. Section 71.93 is revised to read as follows:

§ 71.93 Inspection and tests.

(a) The licensee, certificate holder, and applicant for a CoC shall permit the Commission, at all reasonable times, to inspect the licensed material, packaging, premises, and facilities in which the licensed material or packaging is used, provided, constructed, fabricated, tested, stored, or shipped.

(b) The licensee, certificate holder, and applicant for a CoC shall perform, and permit the Commission to perform, any tests the Commission deems necessary or appropriate for the administration of the regulations in this chapter.

(c) The certificate holder and applicant for a CoC shall notify the NRC, in accordance with § 71.1, 45 days in advance of starting fabrication of the first packaging under a CoC. This paragraph applies to any packaging used for the shipment of licensed material which has either—

(1) A decay heat load in excess of 5 kW; or

(2) A maximum normal operating pressure in excess of 103 kPa (15 lbf/in^2) gauge.

■ 14. Section 71.95 is revised to read as follows:

§ 71.95 Reports.

(a) The licensee, after requesting the certificate holder's input, shall submit a written report to the Commission of—

(1) Instances in which there is a significant reduction in the effectiveness of any NRC-approved Type B or Type AF packaging during use; or

(2) Details of any defects with safety significance in any NRC-approved Type B or fissile material packaging, after first use.

(3) Instances in which the conditions of approval in the Certificate of Compliance were not observed in making a shipment.

(b) The licensee shall submit a written report to the Commission of instances in which the conditions in the certificate of compliance were not followed during a shipment.

(c) Each licensee shall submit, in accordance with § 71.1, a written report required by paragraph (a) or (b) of this section within 60 days of the event or discovery of the event. The licensee shall also provide a copy of each report submitted to the NRC to the applicable certificate holder. Written reports prepared under other regulations may be submitted to fulfill this requirement if the reports contain all the necessary information, and the appropriate distribution is made. Using an appropriate method listed in § 71.1(a), the licensee shall report to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards. These written reports must include the following:

(1) A brief abstract describing the major occurrences during the event, including all component or system failures that contributed to the event and significant corrective action taken or planned to prevent recurrence.

(2) A clear, specific, narrative description of the event that occurred so that knowledgeable readers conversant with the requirements of part 71, but not familiar with the design of the packaging, can understand the complete event. The narrative description must include the following specific information as appropriate for the particular event.

(i) Status of components or systems that were inoperable at the start of the event and that contributed to the event;

(ii) Dates and approximate times of occurrences;

(iii) The cause of each component or system failure or personnel error, if known;

(iv) The failure mode, mechanism, and effect of each failed component, if known;

(v) A list of systems or secondary functions that were also affected for failures of components with multiple functions;

(vi) The method of discovery of each component or system failure or procedural error;

(vii) For each human performance-related root cause, a discussion of the cause(s) and circumstances;

(viii) The manufacturer and model number (or other identification) of each component that failed during the event; and

(ix) For events occurring during use of a packaging, the quantities and chemical and physical form(s) of the package contents.

(3) An assessment of the safety consequences and implications of the event. This assessment must include the availability of other systems or components that could have performed the same function as the components and systems that failed during the event.

(4) A description of any corrective actions planned as a result of the event, including the means employed to repair any defects, and actions taken to reduce the probability of similar events occurring in the future.

(5) Reference to any previous similar events involving the same packaging that are known to the licensee or certificate holder.

(6) The name and telephone number of a person within the licensee's organization who is knowledgeable about the event and can provide additional information.

(7) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

(d) Report legibility. The reports submitted by licensees and/or certificate holders under this section must be of sufficient quality to permit reproduction and micrographic processing.

■ 15. In § 71.100, paragraph (b) is revised to read as follows:

§ 71.100 Criminal penalties.

* * * * *

(b) The regulations in part 71 that are not issued under sections 161b, 161i, or 161o for the purposes of section 223 are as follows: §§ 71.0, 71.2, 71.4, 71.6, 71.7, 71.10, 71.31, 71.33, 71.35, 71.37, 71.38, 71.39, 71.40, 71.41, 71.43, 71.45, 71.47, 71.51, 71.55, 71.59, 71.65, 71.71, 71.73, 71.74, 71.75, 71.77, 71.99, and 71.100.

■ 16. Subpart H to part 71 is revised to read as follows:

Subpart H—Quality Assurance

Sec.

Subpart H—Quality Assurance

§ 71.101 Quality assurance requirements.

(a) *Purpose.* This subpart describes quality assurance requirements applying to design, purchase, fabrication, handling, shipping, storing, cleaning, assembly, inspection, testing, operation, maintenance, repair, and modification of components of packaging that are important to safety. As used in this subpart, "quality assurance" comprises all those planned and systematic actions necessary to provide adequate confidence that a system or component will perform satisfactorily in service. Quality assurance includes quality control, which comprises those quality assurance actions related to control of the physical characteristics and quality of the material or component to predetermined requirements. The licensee, certificate holder, and applicant for a CoC are responsible for the quality assurance requirements as they apply to design, fabrication, testing, and modification of packaging. Each licensee is responsible for the quality assurance provision which applies to its use of a packaging for the shipment of licensed material subject to this subpart.

(b) *Establishment of program.* Each licensee, certificate holder, and applicant for a CoC shall establish, maintain, and execute a quality assurance program satisfying each of the applicable criteria of §§ 71.101 through 71.137 and satisfying any specific provisions that are applicable to the licensee's activities including procurement of packaging. The licensee, certificate holder, and applicant for a CoC shall execute the applicable criteria in a graded approach to an extent that is commensurate with the quality assurance requirement's importance to safety.

(c) *Approval of program.* (1) Before the use of any package for the shipment of licensed material subject to this subpart, each licensee shall obtain Commission approval of its quality assurance program. Using an appropriate method listed in § 71.1(a), each licensee shall file a description of its quality assurance program, including a discussion of which requirements of this subpart are applicable and how they will be satisfied, by submitting the description to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards.

(2) Before the fabrication, testing, or modification of any package for the shipment of licensed material subject to this subpart, each licensee, certificate holder, or applicant for a CoC shall obtain Commission approval of its quality assurance program. Each certificate holder or applicant for a CoC shall, in accordance with § 71.1, file a description of its quality assurance program, including a discussion of which requirements of this subpart are applicable and how they will be satisfied.

(d) *Existing package designs.* The provisions of this paragraph deal with packages that have been approved for use in accordance with this part before January 1, 1979, and which have been designed in accordance with the provisions of this part in effect at the time of application for package approval. Those packages will be accepted as having been designed in accordance with a quality assurance program that satisfies the provisions of paragraph (b) of this section.

(e) *Existing packages.* The provisions of this paragraph deal with packages that have been approved for use in accordance with this part before January 1, 1979, have been at least partially fabricated before that date, and for which the fabrication is in accordance with the provisions of this part in effect at the time of application for approval of package design. These packages will be accepted as having been fabricated and assembled in accordance with a quality assurance program that satisfies the provisions of paragraph (b) of this section.

(f) *Previously approved programs.* A Commission-approved quality assurance program that satisfies the applicable criteria of subpart H of this part, Appendix B of part 50 of this chapter, or subpart G of part 72 of this chapter, and that is established, maintained, and executed regarding transport packages, will be accepted as satisfying the requirements of paragraph (b) of this section. Before first use, the licensee, certificate holder, and applicant for a CoC shall notify the NRC, in accordance with § 71.1, of its intent to apply its previously approved subpart H, Appendix B, or subpart G quality assurance program to transportation activities. The licensee, certificate holder, and applicant for a CoC shall identify the program by date of submittal to the Commission, Docket Number, and date of Commission approval.

(g) *Radiography containers.* A program for transport container inspection and maintenance limited to radiographic exposure devices, source changers, or packages transporting these devices and meeting the requirements of § 34.31(b) of this chapter or equivalent Agreement State requirement, is deemed to satisfy the requirements of §§ 71.17(b) and 71.101(b).

§ 71.103 Quality assurance organization.

(a) The licensee,[2] certificate holder, and applicant for a CoC shall be responsible for the establishment and execution of the quality assurance program. The licensee, certificate holder, and applicant for a CoC may delegate to others, such as contractors, agents, or consultants, the work of establishing and executing the quality assurance program, or any part of the quality assurance program, but shall retain responsibility for the program. These activities include performing the functions associated with attaining quality objectives and the quality assurance functions.

(b) The quality assurance functions are—

(1) Assuring that an appropriate quality assurance program is established and effectively executed; and

(2) Verifying, by procedures such as checking, auditing, and inspection, that activities affecting the functions that are important to safety have been correctly performed.

(c) The persons and organizations performing quality assurance functions must have sufficient authority and organizational freedom to—

(1) Identify quality problems;

(2) Initiate, recommend, or provide solutions; and

(3) Verify implementation of solutions.

(d) The persons and organizations performing quality assurance functions shall report to a management level that assures that the required authority and organizational freedom, including sufficient independence from cost and schedule, when opposed to safety considerations, are provided.

(e) Because of the many variables involved, such as the number of personnel, the type of activity being performed, and the location or locations where activities are performed, the organizational structure for executing the quality assurance program may take various forms, provided that the persons and organizations assigned the quality assurance functions have the required authority and organizational freedom.

(f) Irrespective of the organizational structure, the individual(s) assigned the responsibility for assuring effective execution of any portion of the quality assurance program, at any location where activities subject to this section

[2] While the term "licensee" is used in these criteria, the requirements are applicable to whatever design, fabrication, assembly, and testing of the package is accomplished with respect to a package before the time a package approval is issued.

are being performed, must have direct access to the levels of management necessary to perform this function.

§ 71.105 Quality assurance program.

(a) The licensee, certificate holder, and applicant for a CoC shall establish, at the earliest practicable time consistent with the schedule for accomplishing the activities, a quality assurance program that complies with the requirements of §§ 71.101 through 71.137. The licensee, certificate holder, and applicant for a CoC shall document the quality assurance program by written procedures or instructions and shall carry out the program in accordance with those procedures throughout the period during which the packaging is used. The licensee, certificate holder, and applicant for a CoC shall identify the material and components to be covered by the quality assurance program, the major organizations participating in the program, and the designated functions of these organizations.

(b) The licensee, certificate holder, and applicant for a CoC, through its quality assurance program, shall provide control over activities affecting the quality of the identified materials and components to an extent consistent with their importance to safety, and as necessary to assure conformance to the approved design of each individual package used for the shipment of radioactive material. The licensee, certificate holder, and applicant for a CoC shall assure that activities affecting quality are accomplished under suitably controlled conditions. Controlled conditions include the use of appropriate equipment; suitable environmental conditions for accomplishing the activity, such as adequate cleanliness; and assurance that all prerequisites for the given activity have been satisfied. The licensee, certificate holder, and applicant for a CoC shall take into account the need for special controls, processes, test equipment, tools, and skills to attain the required quality, and the need for verification of quality by inspection and test.

(c) The licensee, certificate holder, and applicant for a CoC shall base the requirements and procedures of its quality assurance program on the following considerations concerning the complexity and proposed use of the package and its components:

(1) The impact of malfunction or failure of the item to safety;

(2) The design and fabrication complexity or uniqueness of the item;

(3) The need for special controls and surveillance over processes and equipment;

(4) The degree to which functional compliance can be demonstrated by inspection or test; and

(5) The quality history and degree of standardization of the item.

(d) The licensee, certificate holder, and applicant for a CoC shall provide for indoctrination and training of personnel performing activities affecting quality, as necessary to assure that suitable proficiency is achieved and maintained. The licensee, certificate holder, and applicant for a CoC shall review the status and adequacy of the quality assurance program at established intervals. Management of other organizations participating in the quality assurance program shall review regularly the status and adequacy of that part of the quality assurance program they are executing.

§ 71.107 Package design control.

(a) The licensee, certificate holder, and applicant for a CoC shall establish measures to assure that applicable regulatory requirements and the package design, as specified in the license or CoC for those materials and components to which this section applies, are correctly translated into specifications, drawings, procedures, and instructions. These measures must include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from standards are controlled. Measures must be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the functions of the materials, parts, and components of the packaging that are important to safety.

(b) The licensee, certificate holder, and applicant for a CoC shall establish measures for the identification and control of design interfaces and for coordination among participating design organizations. These measures must include the establishment of written procedures, among participating design organizations, for the review, approval, release, distribution, and revision of documents involving design interfaces. The design control measures must provide for verifying or checking the adequacy of design, by methods such as design reviews, alternate or simplified calculational methods, or by a suitable testing program. For the verifying or checking process, the licensee shall designate individuals or groups other than those who were responsible for the original design, but who may be from the same organization. Where a test program is used to verify the adequacy of a specific design feature in lieu of other verifying or checking processes, the licensee, certificate holder, and applicant for a CoC shall include suitable qualification testing of a prototype or sample unit under the most adverse design conditions. The licensee, certificate holder, and applicant for a CoC shall apply design control measures to the following:

(1) Criticality physics, radiation shielding, stress, thermal, hydraulic, and accident analyses;

(2) Compatibility of materials;

(3) Accessibility for inservice inspection, maintenance, and repair;

(4) Features to facilitate decontamination; and

(5) Delineation of acceptance criteria for inspections and tests.

(c) The licensee, certificate holder, and applicant for a CoC shall subject design changes, including field changes, to design control measures commensurate with those applied to the original design. Changes in the conditions specified in the CoC require prior NRC approval.

§ 71.109 Procurement document control.

The licensee, certificate holder, and applicant for a CoC shall establish measures to assure that adequate quality is required in the documents for procurement of material, equipment, and services, whether purchased by the licensee, certificate holder, and applicant for a CoC or by its contractors or subcontractors. To the extent necessary, the licensee, certificate holder, and applicant for a CoC shall require contractors or subcontractors to provide a quality assurance program consistent with the applicable provisions of this part.

§ 71.111 Instructions, procedures, and drawings.

The licensee, certificate holder, and applicant for a CoC shall prescribe activities affecting quality by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall require that these instructions, procedures, and drawings be followed. The instructions, procedures, and drawings must include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

§ 71.113 Document control.

The licensee, certificate holder, and applicant for a CoC shall establish measures to control the issuance of documents such as instructions, procedures, and drawings, including

changes, that prescribe all activities affecting quality. These measures must assure that documents, including changes, are reviewed for adequacy, approved for release by authorized personnel, and distributed and used at the location where the prescribed activity is performed.

§ 71.115 Control of purchased material, equipment, and services.

(a) The licensee, certificate holder, and applicant for a CoC shall establish measures to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. These measures must include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products on delivery.

(b) The licensee, certificate holder, and applicant for a CoC shall have available documentary evidence that material and equipment conform to the procurement specifications before installation or use of the material and equipment. The licensee, certificate holder, and applicant for a CoC shall retain, or have available, this documentary evidence for the life of the package to which it applies. The licensee, certificate holder, and applicant for a CoC shall assure that the evidence is sufficient to identify the specific requirements met by the purchased material and equipment.

(c) The licensee, certificate holder, and applicant for a CoC shall assess the effectiveness of the control of quality by contractors and subcontractors at intervals consistent with the importance, complexity, and quantity of the product or services.

§ 71.117 Identification and control of materials, parts, and components.

The licensee, certificate holder, and applicant for a CoC shall establish measures for the identification and control of materials, parts, and components. These measures must assure that identification of the item is maintained by heat number, part number, or other appropriate means, either on the item or on records traceable to the item, as required throughout fabrication, installation, and use of the item. These identification and control measures must be designed to prevent the use of incorrect or defective materials, parts, and components.

§ 71.119 Control of special processes.

The licensee, certificate holder, and applicant for a CoC shall establish measures to assure that special processes, including welding, heat treating, and nondestructive testing are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

§ 71.121 Internal inspection.

The licensee, certificate holder, and applicant for a CoC shall establish and execute a program for inspection of activities affecting quality by or for the organization performing the activity, to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity. The inspection must be performed by individuals other than those who performed the activity being inspected. Examination, measurements, or tests of material or products processed must be performed for each work operation where necessary to assure quality. If direct inspection of processed material or products is not carried out, indirect control by monitoring processing methods, equipment, and personnel must be provided. Both inspection and process monitoring must be provided when quality control is inadequate without both. If mandatory inspection hold points, which require witnessing or inspecting by the licensee's designated representative and beyond which work should not proceed without the consent of its designated representative, are required, the specific hold points must be indicated in appropriate documents.

§ 71.123 Test control.

The licensee, certificate holder, and applicant for a CoC shall establish a test program to assure that all testing required to demonstrate that the packaging components will perform satisfactorily in service is identified and performed in accordance with written test procedures that incorporate the requirements of this part and the requirements and acceptance limits contained in the package approval. The test procedures must include provisions for assuring that all prerequisites for the given test are met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions. The licensee, certificate holder, and applicant for a CoC shall document and evaluate the test results to assure that test requirements have been satisfied.

§ 71.125 Control of measuring and test equipment.

The licensee, certificate holder, and applicant for a CoC shall establish measures to assure that tools, gauges, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified times to maintain accuracy within necessary limits.

§ 71.127 Handling, storage, and shipping control.

The licensee, certificate holder, and applicant for a CoC shall establish measures to control, in accordance with instructions, the handling, storage, shipping, cleaning, and preservation of materials and equipment to be used in packaging to prevent damage or deterioration. When necessary for particular products, special protective environments, such as inert gas atmosphere, and specific moisture content and temperature levels must be specified and provided.

§ 71.129 Inspection, test, and operating status.

(a) The licensee, certificate holder, and applicant for a CoC shall establish measures to indicate, by the use of markings such as stamps, tags, labels, routing cards, or other suitable means, the status of inspections and tests performed upon individual items of the packaging. These measures must provide for the identification of items that have satisfactorily passed required inspections and tests, where necessary to preclude inadvertent bypassing of the inspections and tests.

(b) The licensee shall establish measures to identify the operating status of components of the packaging, such as tagging valves and switches, to prevent inadvertent operation.

§ 71.131 Nonconforming materials, parts, or components.

The licensee, certificate holder, and applicant for a CoC shall establish measures to control materials, parts, or components that do not conform to the licensee's requirements to prevent their inadvertent use or installation. These measures must include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Nonconforming items must be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures.

§ 71.133 Corrective action.

The licensee, certificate holder, and applicant for a CoC shall establish

measures to assure that conditions adverse to quality, such as deficiencies, deviations, defective material and equipment, and nonconformances, are promptly identified and corrected. In the case of a significant condition adverse to quality, the measures must assure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken must be documented and reported to appropriate levels of management.

§ 71.135 Quality assurance records.

The licensee, certificate holder, and applicant for a CoC shall maintain sufficient written records to describe the activities affecting quality. The records must include the instructions, procedures, and drawings required by § 71.111 to prescribe quality assurance activities and must include closely related specifications such as required qualifications of personnel, procedures, and equipment. The records must include the instructions or procedures which establish a records retention program that is consistent with applicable regulations and designates factors such as duration, location, and assigned responsibility. The licensee, certificate holder, and applicant for a CoC shall retain these records for 3 years beyond the date when the licensee, certificate holder, and applicant for a CoC last engage in the activity for which the quality assurance program was developed. If any portion of the written procedures or instructions is superseded, the licensee, certificate holder, and applicant for a CoC shall retain the superseded material for 3 years after it is superseded.

§ 71.137 Audits.

The licensee, certificate holder, and applicant for a CoC shall carry out a comprehensive system of planned and periodic audits to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program. The audits must be performed in accordance with written procedures or checklists by appropriately trained personnel not having direct responsibilities in the areas being audited. Audited results must be documented and reviewed by management having responsibility in the area audited. Followup action, including reaudit of deficient areas, must be taken where indicated.

■ 17. Appendix A to part 71 is revised to read as follows:

Appendix A to Part 71—Determination of A_1 and A_2

I. Values of A_1 and A_2 for individual radionuclides, which are the bases for many activity limits elsewhere in these regulations, are given in Table A–1. The curie (Ci) values specified are obtained by converting from the Terabecquerel (TBq) figure. The curie values are expressed to three significant figures to assure that the difference in the TBq and Ci quantities is one tenth of one percent or less. Where values of A_1 and A_2 are unlimited, it is for radiation control purposes only. For nuclear criticality safety, some materials are subject to controls placed on fissile material.

II. a. For individual radionuclides whose identities are known, but which are not listed in Table A–1, the A_1 and A_2 values contained in Table A–3 may be used. Otherwise, the licensee shall obtain prior Commission approval of the A_1 and A_2 values for radionuclides not listed in Table A–1, before shipping the material.

b. For individual radionuclides whose identities are known, but which are not listed in Table A–2, the exempt material activity concentration and exempt consignment activity values contained in Table A–3 may be used. Otherwise, the licensee shall obtain prior Commission approval of the exempt material activity concentration and exempt consignment activity values for radionuclides not listed in Table A–2, before shipping the material.

c. The licensee shall submit requests for prior approval, described under paragraphs II.a. and II.b. of this Appendix, to the Commission, in accordance with § 71.1 of this part.

III. In the calculations of A_1 and A_2 for a radionuclide not in Table A–1, a single radioactive decay chain, in which radionuclides are present in their naturally occurring proportions, and in which no daughter radionuclide has a half-life either longer than 10 days, or longer than that of the parent radionuclide, shall be considered as a single radionuclide, and the activity to be taken into account, and the A_1 and A_2 value to be applied, shall be those corresponding to the parent radionuclide of that chain. In the case of radioactive decay chains in which any daughter radionuclide has a half-life either longer than 10 days, or greater than that of the parent radionuclide, the parent and those daughter radionuclides shall be considered as mixtures of different radionuclides.

IV. For mixtures of radionuclides whose identities and respective activities are known, the following conditions apply:

a. For special form radioactive material, the maximum quantity transported in a Type A package is as follows:

$$\sum_i \frac{B(i)}{A_1(i)} \leq 1$$

where B(i) is the activity of radionuclide I, and $A_1(i)$ is the A_1 value for radionuclide I.

b. For normal form radioactive material, the maximum quantity transported in a Type A package is as follows:

$$\sum_i \frac{B(i)}{A_2(i)} \leq 1$$

where B(i) is the activity of radionuclide I, and $A_2(i)$ is the $A_2(i)$ value for radionuclide I.

c. Alternatively, the A_1 value for mixtures of special form material may be determined as follows:

$$A_1 \text{ for mixture} = \frac{1}{\sum_i \frac{f(i)}{A_1(i)}}$$

where f(i) is the fraction of activity for radionuclide I in the mixture, and $A_1(i)$ is the appropriate A_1 value for radionuclide I.

d. Alternatively, the A_2 value for mixtures of normal form material may be determined as follows:

$$A_2 \text{ for mixture} = \frac{1}{\sum_i \frac{f(i)}{A_2(i)}}$$

where f(i) is the fraction of activity for radionuclide I in the mixture, and $A_2(i)$ is the appropriate A_2 value for radionuclide I.

e. The exempt activity concentration for mixtures of nuclides may be determined as follows:

$$\text{Exempt activity concentration for mixture} = \frac{1}{\sum_i \frac{f(i)}{[A](i)}}$$

where f(i) is the fraction of activity concentration of radionuclide I in the mixture, and [A] is the activity concentration for exempt material containing radionuclide I.

f. The activity limit for an exempt consignment for mixtures of radionuclides may be determined as follows:

$$\text{Exempt consignment activity limit for mixture} = \frac{1}{\sum_{i} \frac{f(i)}{A(i)}}$$

where f(i) is the fraction of activity of radionuclide I in the mixture, and A is the activity limit for exempt consignments for radionuclide I.

V. When the identity of each radionuclide is known, but the individual activities of some of the radionuclides are not known, the radionuclides may be grouped, and the lowest A_1 or A_2 value, as appropriate, for the radionuclides in each group may be used in applying the formulas in paragraph IV. Groups may be based on the total alpha activity and the total beta/gamma activity when these are known, using the lowest A_1 or A_2 values for the alpha emitters and beta/gamma emitters.

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Ac-225 (a)	Actinium (89)	8.0×10^{-1}	2.2×10^{1}	6.0×10^{-3}	1.6×10^{-1}	2.1×10^{3}	5.8×10^{4}
Ac-227 (a)		9.0×10^{-1}	2.4×10^{1}	9.0×10^{-5}	2.4×10^{-3}	2.7	7.2×10^{1}
Ac-228		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	8.4×10^{4}	2.2×10^{6}
Ag-105	Silver (47)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.1×10^{3}	3.0×10^{4}
Ag-108m (a)		7.0	1.9×10^{1}	7.0	1.9×10^{1}	9.7×10^{-1}	2.6×10^{1}
Ag-110m (a)		4.0	1.1×10^{1}	4.0	1.1×10^{1}	1.8×10^{2}	4.7×10^{3}
Ag-111		2.0	5.4×10^{1}	6.0	1.6×10^{1}	5.8×10^{3}	1.6×10^{5}
Al-26	Aluminum (13)	1.0×10^{-1}	2.7	1.0×10^{-1}	2.7	7.0×10^{-4}	1.9×10^{-2}
Am-241	Americium (95)	1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.3×10^{-1}	3.4
Am-242m (a)		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	3.6×10^{-1}	1.0×10^{1}
Am-243 (a)		5.0	1.4×10^{2}	1.0×10^{-3}	2.7×10^{-2}	7.4×10^{-3}	2.0×10^{-1}
Ar-37	Argon (18)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.7×10^{3}	9.9×10^{4}
Ar-39		4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	1.3	3.4×10^{1}
Ar-41		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.5×10^{6}	4.2×10^{7}
As-72	Arsenic (33)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	6.2×10^{4}	1.7×10^{6}
As-73		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	8.2×10^{2}	2.2×10^{4}
As-74		1.0	2.7×10^{1}	9.0×10^{-1}	2.4×10^{1}	3.7×10^{3}	9.9×10^{4}
As-76		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.8×10^{4}	1.6×10^{6}
As-77		2.0×10^{1}	5.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	3.9×10^{4}	1.0×10^{6}
At-211 (a)	Astatine (85)	2.0×10^{1}	5.4×10^{2}	5.0×10^{-1}	1.4×10^{1}	7.6×10^{4}	2.1×10^{6}
Au-193	Gold (79)	7.0	1.9×10^{2}	2.0	5.4×10^{1}	3.4×10^{4}	9.2×10^{5}
Au-194		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.5×10^{4}	4.1×10^{5}
Au-195		1.0×10^{1}	2.7×10^{2}	6.0	1.6×10^{2}	1.4×10^{2}	3.7×10^{3}
Au-198		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.0×10^{3}	2.4×10^{5}
Au-199		1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	7.7×10^{3}	2.1×10^{5}
Ba-131 (a)	Barium (56)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.1×10^{3}	8.4×10^{4}
Ba-133		3.0	8.1×10^{1}	3.0	8.1×10^{1}	9.4	2.6×10^{2}
Ba-133m		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	2.2×10^{4}	6.1×10^{5}
Ba-140 (a)		5.0×10^{-1}	1.4×10^{1}	3.0×10^{-1}	8.1	2.7×10^{3}	7.3×10^{4}
Be-7	Beryllium (4)	2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	1.3×10^{4}	3.5×10^{5}
Be-10		4.0×10^{1}	1.1×10^{3}	6.0×10^{-1}	1.6×10^{1}	8.3×10^{-4}	2.2×10^{-2}
Bi-205	Bismuth (83)	7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.5×10^{-3}	4.2×10^{4}
Bi-206		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	3.8×10^{3}	1.0×10^{5}
Bi-207		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.9	5.2×10^{1}
Bi-210		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.6×10^{3}	1.2×10^{5}
Bi-210m (a)		6.0×10^{-1}	1.6×10^{1}	2.0×10^{-2}	5.4×10^{-1}	2.1×10^{-5}	5.7×10^{-4}
Bi-212 (a)		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	5.4×10^{5}	1.5×10^{7}
Bk-247	Berkelium (97)	8.0	2.2×10^{2}	8.0×10^{-4}	2.2×10^{-2}	3.8×10^{-2}	1.0
Bk-249 (a)		4.0×10^{1}	1.1×10^{3}	3.0×10^{-1}	8.1	6.1×10^{1}	1.6×10^{3}
Br-76	Bromine (35)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	9.4×10^{4}	2.5×10^{6}
Br-77		3.0	8.1×10^{1}	3.0	8.1×10^{1}	2.6×10^{4}	7.1×10^{5}
Br-82		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.0×10^{4}	1.1×10^{6}
C-11	Carbon (6)	1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.1×10^{7}	8.4×10^{8}
C-14		4.0×10^{1}	1.1×10^{3}	3.0	8.1×10^{1}	1.6×10^{-1}	4.5
Ca-41	Calcium (20)	Unlimited	Unlimited	Unlimited	Unlimited	3.1×10^{-3}	8.5×10^{-2}
Ca-45		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	6.6×10^{2}	1.8×10^{4}
Ca-47 (a)		3.0	8.1×10^{1}	3.0×10^{-1}	8.1	2.3×10^{4}	6.1×10^{5}
Cd-109	Cadmium (48)	3.0×10^{1}	8.1×10^{2}	2.0	5.4×10^{1}	9.6×10^{1}	2.6×10^{3}
Cd-113m		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	8.3	2.2×10^{2}
Cd-115 (a)		3.0	8.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.9×10^{4}	5.1×10^{5}
Cd-115m		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	9.4×10^{2}	2.5×10^{4}
Ce-139	Cerium (58)	7.0	1.9×10^{2}	2.0	5.4×10^{1}	2.5×10^{2}	6.8×10^{3}
Ce-141		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.1×10^{3}	2.8×10^{4}
Ce-143		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{4}	6.6×10^{5}
Ce-144 (a)		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.2×10^{2}	3.2×10^{3}
Cf-248	Californium (98)	4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	5.8×10^{1}	1.6×10^{3}
Cf-249		3.0	8.1×10^{1}	8.0×10^{-4}	2.2×10^{-2}	1.5×10^{-1}	4.1

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Cf-250		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	4.0	1.1×10^{2}
Cf-251		7.0	1.9×10^{2}	7.0×10^{-4}	1.9×10^{-2}	5.9×10^{-2}	1.6
Cf-252 (h)		5.0×10^{-2}	1.4	3.0×10^{-3}	8.1×10^{-2}	2.0×10^{1}	5.4×10^{2}
Cf-253 (a)		4.0×10^{1}	1.1×10^{3}	4.0×10^{-2}	1.1	1.1×10^{3}	2.9×10^{4}
Cf-254		1.0×10^{-3}	2.7×10^{-2}	1.0×10^{-3}	2.7×10^{-2}	3.1×10^{2}	8.5×10^{3}
Cl-36	Chlorine (17)	1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{-3}	3.3×10^{-2}
Cl-38		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	4.9×10^{6}	1.3×10^{8}
Cm-240	Curium (96)	4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	7.5×10^{2}	2.0×10^{4}
Cm-241		2.0	5.4×10^{1}	1.0	2.7×10^{1}	6.1×10^{2}	1.7×10^{4}
Cm-242		4.0×10^{1}	1.1×10^{3}	1.0×10^{-2}	2.7×10^{-1}	1.2×10^{2}	3.3×10^{3}
Cm-243		9.0	2.4×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.9×10^{-3}	5.2×10^{1}
Cm-244		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	3.0	8.1×10^{1}
Cm-245		9.0	2.4×10^{2}	9.0×10^{-4}	2.4×10^{-2}	6.4×10^{-3}	1.7×10^{-1}
Cm-246		9.0	2.4×10^{2}	9.0×10^{-4}	2.4×10^{-2}	1.1×10^{-2}	3.1×10^{-1}
Cm-247 (a)		3.0	8.1×10^{1}	1.0×10^{-3}	2.7×10^{-2}	3.4×10^{-6}	9.3×10^{-5}
Cm-248		2.0×10^{-2}	5.4×10^{-1}	3.0×10^{-4}	8.1×10^{-3}	1.6×10^{-5}	4.2×10^{-3}
Co-55	Cobalt (27)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.1×10^{5}	3.1×10^{6}
Co-56		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.1×10^{3}	3.0×10^{4}
Co-57		1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	3.1×10^{2}	8.4×10^{3}
Co-58		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.2×10^{3}	3.2×10^{4}
Co-58m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	2.2×10^{5}	5.9×10^{6}
Co-60		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.2×10^{1}	1.1×10^{3}
Cr-51	Chromium (24)	3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	3.4×10^{3}	9.2×10^{4}
Cs-129	Cesium (55)	4.0	1.1×10^{2}	4.0	1.1×10^{2}	2.8×10^{4}	7.6×10^{5}
Cs-131		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	3.8×10^{3}	1.0×10^{5}
Cs-132		1.0	2.7×10^{1}	1.0	2.7×10^{1}	5.7×10^{3}	1.5×10^{5}
Cs-134		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.8×10^{1}	1.3×10^{3}
Cs-134m		4.0×10^{1}	1.1×10^{3}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{5}	8.0×10^{6}
Cs-135		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	4.3×10^{-5}	1.2×10^{-3}
Cs-136		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.7×10^{3}	7.3×10^{4}
Cs-137 (a)		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.2	8.7×10^{1}
Cu-64	Copper (29)	6.0	1.6×10^{2}	1.0	2.7×10^{1}	1.4×10^{5}	3.9×10^{6}
Cu-67		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	2.8×10^{4}	7.6×10^{5}
Dy-159	Dysprosium (66)	2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	2.1×10^{2}	5.7×10^{3}
Dy-165		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{5}	8.2×10^{6}
Dy-166 (a)		9.0×10^{-1}	2.4×10^{1}	3.0×10^{-1}	8.1	8.6×10^{3}	2.3×10^{5}
Er-169	Erbium (68)	4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	3.1×10^{3}	8.3×10^{4}
Er-171		8.0×10^{-1}	2.2×10^{1}	5.0×10^{-1}	1.4×10^{1}	9.0×10^{4}	2.4×10^{6}
Eu-147	Europium (63)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.4×10^{3}	3.7×10^{4}
Eu-148		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.0×10^{2}	1.6×10^{4}
Eu-149		2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	3.5×10^{2}	9.4×10^{3}
Eu-150 (short lived).		2.0	5.4×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.1×10^{4}	1.6×10^{6}
Eu-150 (long lived).		7 x 10 – 1	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.1×10^{4}	1.6×10^{6}
Eu-152		1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.5	1.8×10^{2}
Eu-152m		8.0×10^{-1}	2.2×10^{1}	8.0×10^{-1}	2.2×10^{1}	8.2×10^{4}	2.2×10^{6}
Eu-154		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.8	2.6×10^{2}
Eu-155		2.0×10^{1}	5.4×10^{2}	3.0	8.1×10^{1}	1.8×10^{1}	4.9×10^{2}
Eu-156		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	2.0×10^{3}	5.5×10^{4}
F-18	Fluorine (9)	1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.5×10^{6}	9.5×10^{7}
Fe-52 (a)	Iron (26)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.7×10^{5}	7.3×10^{6}
Fe-55		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	8.8×10^{1}	2.4×10^{3}
Fe-59		9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	1.8×10^{3}	5.0×10^{4}
Fe-60 (a)		4.0×10^{1}	1.1×10^{3}	2.0×10^{-1}	5.4	7.4×10^{-4}	2.0×10^{-2}
Ga-67	Gallium (31)	7.0	1.9×10^{2}	3.0	8.1×10^{1}	2.2×10^{4}	6.0×10^{5}
Ga-68		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.5×10^{6}	4.1×10^{7}
Ga-72		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{5}	3.1×10^{6}
Gd-146 (a)	Gadolinium (64)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.9×10^{2}	1.9×10^{4}
Gd-148		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	1.2	3.2×10^{1}
Gd-153		1.0×10^{1}	2.7×10^{2}	9.0	2.4×10^{2}	1.3×10^{2}	3.5×10^{3}
Gd-159		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.9×10^{4}	1.1×10^{6}
Ge-68 (a)	Germanium (32)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.6×10^{2}	7.1×10^{3}
Ge-71		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.8×10^{3}	1.6×10^{5}
Ge-77		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.3×10^{5}	3.6×10^{6}
Hf-172 (a)	Hafnium (72)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.1×10^{1}	1.1×10^{3}
Hf-175		3.0	8.1×10^{1}	3.0	8.1×10^{1}	3.9×10^{2}	1.1×10^{4}
Hf-181		2.0	5.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.3×10^{2}	1.7×10^{4}
Hf-182		Unlimited	Unlimited	Unlimited	Unlimited	8.1×10^{-6}	2.2×10^{-4}
Hg-194 (a)	Mercury (80)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.3×10^{-1}	3.5

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Hg-195m (a)		3.0	8.1×10^{1}	7.0×10^{-1}	1.9×10^{1}	1.5×10^{4}	4.0×10^{5}
Hg-197		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	9.2×10^{3}	2.5×10^{5}
Hg-197m		1.0×10^{1}	2.7×10^{2}	4.0×10^{-1}	1.1×10^{1}	2.5×10^{4}	6.7×10^{5}
Hg-203		5.0	1.4×10^{2}	1.0	2.7×10^{1}	5.1×10^{2}	1.4×10^{4}
Ho-166	Holmium (67)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	2.6×10^{4}	7.0×10^{5}
Ho-166m		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.6×10^{-2}	1.8
I-123	Iodine (53)	6.0	1.6×10^{2}	3.0	8.1×10^{1}	7.1×10^{4}	1.9×10^{6}
I-124		1.0	2.7×10^{1}	1.0	2.7×10^{1}	9.3×10^{3}	2.5×10^{5}
I-125		2.0×10^{1}	5.4×10^{2}	3.0	8.1×10^{1}	6.4×10^{2}	1.7×10^{4}
I-126		2.0	5.4×10^{1}	1.0	2.7×10^{1}	2.9×10^{3}	8.0×10^{4}
I-129		Unlimited	Unlimited	Unlimited	Unlimited	6.5×10^{-6}	1.8×10^{-4}
I-131		3.0	8.1×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.6×10^{3}	1.2×10^{5}
I-132		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.8×10^{5}	1.0×10^{7}
I-133		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{4}	1.1×10^{6}
I-134		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	9.9×10^{5}	2.7×10^{7}
I-135 (a)		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.3×10^{5}	3.5×10^{6}
In-111	Indium (49)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	1.5×10^{4}	4.2×10^{5}
In-113m		4.0	1.1×10^{2}	2.0	5.4×10^{1}	6.2×10^{5}	1.7×10^{7}
In-114m (a)		1.0×10^{1}	2.7×10^{2}	5.0×10^{-1}	1.4×10^{1}	8.6×10^{2}	2.3×10^{4}
In-115m		7.0	1.9×10^{2}	1.0	2.7×10^{1}	2.2×10^{5}	6.1×10^{6}
Ir-189 (a)	Iridium (77)	1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	1.9×10^{3}	5.2×10^{4}
Ir-190		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	2.3×10^{3}	6.2×10^{4}
Ir-192 (c)		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.4×10^{2}	9.2×10^{3}
Ir-194		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	3.1×10^{4}	8.4×10^{5}
K-40	Potassium (19)	9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	2.4×10^{-7}	6.4×10^{-6}
K-42		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	2.2×10^{5}	6.0×10^{6}
K-43		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{5}	3.3×10^{6}
Kr-81	Krypton (36)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	7.8×10^{-4}	2.1×10^{-2}
Kr-85		1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	1.5×10^{1}	3.9×10^{2}
Kr-85m		8.0	2.2×10^{2}	3.0	8.1×10^{1}	3.0×10^{5}	8.2×10^{6}
Kr-87		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.0×10^{6}	2.8×10^{7}
La-137	Lanthanum (57)	3.0×10^{1}	8.1×10^{2}	6.0	1.6×10^{2}	1.6×10^{-3}	4.4×10^{-2}
La-140		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	2.1×10^{4}	5.6×10^{5}
Lu-172	Lutetium (71)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{3}	1.1×10^{5}
Lu-173		8.0	2.2×10^{2}	8.0	2.2×10^{2}	5.6×10^{1}	1.5×10^{3}
Lu-174		9.0	2.4×10^{2}	9.0	2.4×10^{2}	2.3×10^{1}	6.2×10^{2}
Lu-174m		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	2.0×10^{2}	5.3×10^{3}
Lu-177		3.0×10^{1}	8.1×10^{2}	7.0×10^{-1}	1.9×10^{1}	4.1×10^{3}	1.1×10^{5}
Mg-28 (a)	Magnesium (12)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.0×10^{5}	5.4×10^{6}
Mn-52	Manganese (25)	3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.6×10^{4}	4.4×10^{5}
Mn-53		Unlimited	Unlimited	Unlimited	Unlimited	6.8×10^{-5}	1.8×10^{-3}
Mn-54		1.0	2.7×10^{1}	1.0	2.7×10^{1}	2.9×10^{2}	7.7×10^{3}
Mn-56		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	8.0×10^{5}	2.2×10^{7}
Mo-93	Molybdenum (42)	4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	4.1×10^{-2}	1.1
Mo-99 (a) (i)		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.8×10^{4}	4.8×10^{5}
N-13	Nitrogen (7)	9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	5.4×10^{7}	1.5×10^{9}
Na-22	Sodium (11)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.3×10^{2}	6.3×10^{3}
Na-24		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	3.2×10^{5}	8.7×10^{6}
Nb-93m	Niobium (41)	4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	8.8	2.4×10^{2}
Nb-94		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	6.9×10^{-3}	1.9×10^{-1}
Nb-95		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.5×10^{3}	3.9×10^{4}
Nb-97		9.0×10^{-1}	2.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.9×10^{5}	2.7×10^{7}
Nd-147	Neodymium (60)	6.0	1.6×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{3}	8.1×10^{4}
Nd-149		6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	4.5×10^{5}	1.2×10^{7}
Ni-59	Nickel (28)	Unlimited	Unlimited	Unlimited	Unlimited	3.0×10^{-3}	8.0×10^{-2}
Ni-63		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	2.1	5.7×10^{1}
Ni-65		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	7.1×10^{5}	1.9×10^{7}
Np-235	Neptunium (93)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.2×10^{1}	1.4×10^{3}
Np-236 (short-lived).		2.0×10^{1}	5.4×10^{2}	2.0	5.4×10^{1}	4.7×10^{-4}	1.3×10^{-2}
Np-236 (long-lived).		9.0×10^{0}	2.4×10^{2}	2.0×10^{-2}	5.4×10^{-1}	4.7×10^{-4}	1.3×10^{-2}
Np-237		2.0×10^{1}	5.4×10^{2}	2.0×10^{-3}	5.4×10^{-2}	2.6×10^{-5}	7.1×10^{-4}
Np-239		7.0	1.9×10^{2}	4.0×10^{-1}	1.1×10^{1}	8.6×10^{3}	2.3×10^{5}
Os-185	Osmium (76)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	2.8×10^{2}	7.5×10^{3}
Os-191		1.0×10^{1}	2.7×10^{2}	2.0	5.4×10^{1}	1.6×10^{3}	4.4×10^{4}
Os-191m		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	4.6×10^{4}	1.3×10^{6}
Os-193		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.0×10^{4}	5.3×10^{5}
Os-194 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.1×10^{1}	3.1×10^{2}
P-32	Phosphorus (15)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.1×10^{4}	2.9×10^{5}

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
P-33		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	5.8×10^{3}	1.6×10^{5}
Pa-230 (a)	Protactinium (91)	2.0	5.4×10^{1}	7.0×10^{-2}	1.9	1.2×10^{3}	3.3×10^{4}
Pa-231		4.0	1.1×10^{2}	4.0×10^{-4}	1.1×10^{-2}	1.7×10^{-3}	4.7×10^{-2}
Pa-233		5.0	1.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	7.7×10^{2}	2.1×10^{4}
Pb-201	Lead (82)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.2×10^{4}	1.7×10^{6}
Pb-202		4.0×10^{1}	1.1×10^{3}	2.0×10^{1}	5.4×10^{2}	1.2×10^{-4}	3.4×10^{-3}
Pb-203		4.0	1.1×10^{2}	3.0	8.1×10^{1}	1.1×10^{4}	3.0×10^{5}
Pb-205		Unlimited	Unlimited	Unlimited	Unlimited	4.5×10^{-6}	1.2×10^{-4}
Pb-210 (a)		1.0	2.7×10^{1}	5.0×10^{-2}	1.4	2.8	7.6×10^{1}
Pb-212 (a)		7.0×10^{-1}	1.9×10^{1}	2.0×10^{-1}	5.4	5.1×10^{4}	1.4×10^{6}
Pd-103 (a)	Palladium (46)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	2.8×10^{3}	7.5×10^{4}
Pd-107		Unlimited	Unlimited	Unlimited	Unlimited	1.9×10^{-5}	5.1×10^{-4}
Pd-109		2.0	5.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	7.9×10^{4}	2.1×10^{6}
Pm-143	Promethium (61)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	1.3×10^{2}	3.4×10^{3}
Pm-144		7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	9.2×10^{1}	2.5×10^{3}
Pm-145		3.0×10^{1}	8.1×10^{2}	1.0×10^{1}	2.7×10^{2}	5.2	1.4×10^{2}
Pm-147		4.0×10^{1}	1.1×10^{3}	2.0	5.4×10^{1}	3.4×10^{1}	9.3×10^{2}
Pm-148m (a)		8.0×10^{-1}	2.2×10^{1}	7.0×10^{-1}	1.9×10^{1}	7.9×10^{2}	2.1×10^{4}
Pm-149		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.5×10^{4}	4.0×10^{5}
Pm-151		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.7×10^{4}	7.3×10^{5}
Po-210	Polonium (84)	4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	1.7×10^{2}	4.5×10^{3}
Pr-142	Praseodymium (59)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.3×10^{4}	1.2×10^{6}
Pr-143		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{3}	6.7×10^{4}
Pt-188 (a)	Platinum (78)	1.0	2.7×10^{1}	8.0×10^{-1}	2.2×10^{1}	2.5×10^{3}	6.8×10^{4}
Pt-191		4.0	1.1×10^{2}	3.0	8.1×10^{1}	8.7×10^{3}	2.4×10^{5}
Pt-193		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	1.4	3.7×10^{1}
Pt-193m		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	5.8×10^{3}	1.6×10^{5}
Pt-195m		1.0×10^{1}	2.7×10^{2}	5.0×10^{-1}	1.4×10^{1}	6.2×10^{3}	1.7×10^{5}
Pt-197		2.0×10^{1}	5.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.2×10^{4}	8.7×10^{5}
Pt-197m		1.0×10^{1}	2.7×10^{2}	6.0×10^{-1}	1.6×10^{1}	3.7×10^{5}	1.0×10^{7}
Pu-236	Plutonium (94)	3.0×10^{1}	8.1×10^{2}	3.0×10^{-3}	8.1×10^{-2}	2.0×10^{1}	5.3×10^{2}
Pu-237		2.0×10^{1}	5.4×10^{2}	2.0×10^{1}	5.4×10^{2}	4.5×10^{2}	1.2×10^{4}
Pu-238		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	6.3×10^{-1}	1.7×10^{1}
Pu-239		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	2.3×10^{-3}	6.2×10^{-2}
Pu-240		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	8.4×10^{-3}	2.3×10^{-1}
Pu-241 (a)		4.0×10^{1}	1.1×10^{3}	6.0×10^{-2}	1.6	3.8	1.0×10^{2}
Pu-242		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	1.5×10^{-4}	3.9×10^{-3}
Pu-244 (a)		4.0×10^{-1}	1.1×10^{1}	1.0×10^{-3}	2.7×10^{-2}	6.7×10^{-7}	1.8×10^{-5}
Ra-223 (a)	Radium (88)	4.0×10^{-1}	1.1×10^{1}	7.0×10^{-3}	1.9×10^{-1}	1.9×10^{3}	5.1×10^{4}
Ra-224 (a)		4.0×10^{-1}	1.1×10^{1}	2.0×10^{-2}	5.4×10^{-1}	5.9×10^{3}	1.6×10^{5}
Ra-225 (a)		2.0×10^{-1}	5.4	4.0×10^{-3}	1.1×10^{-1}	1.5×10^{3}	3.9×10^{4}
Ra-226 (a)		2.0×10^{-1}	5.4	3.0×10^{-3}	8.1×10^{-2}	3.7×10^{-2}	1.0
Ra-228 (a)		6.0×10^{-1}	1.6×10^{1}	2.0×10^{-2}	5.4×10^{-1}	1.0×10^{1}	2.7×10^{2}
Rb-81	Rubidium (37)	2.0	5.4×10^{1}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{5}	8.4×10^{6}
Rb-83 (a)		2.0	5.4×10^{1}	2.0	5.4×10^{1}	6.8×10^{2}	1.8×10^{4}
Rb-84		1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.8×10^{3}	4.7×10^{4}
Rb-86		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	3.0×10^{3}	8.1×10^{4}
Rb-87		Unlimited	Unlimited	Unlimited	Unlimited	3.2×10^{-9}	8.6×10^{-8}
Rb(nat)		Unlimited	Unlimited	Unlimited	Unlimited	6.7×10^{6}	1.8×10^{8}
Re-184	Rhenium (75)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	6.9×10^{2}	1.9×10^{4}
Re-184m		3.0	8.1×10^{1}	1.0	2.7×10^{1}	1.6×10^{2}	4.3×10^{3}
Re-186		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	6.9×10^{3}	1.9×10^{5}
Re-187		Unlimited	Unlimited	Unlimited	Unlimited	1.4×10^{-9}	3.8×10^{-8}
Re-188		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.6×10^{4}	9.8×10^{5}
Re-189 (a)		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{4}	6.8×10^{5}
Re(nat)		Unlimited	Unlimited	Unlimited	Unlimited	0.0	2.4×10^{-8}
Rh-99	Rhodium (45)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.0×10^{3}	8.2×10^{4}
Rh-101		4.0	1.1×10^{2}	3.0	8.1×10^{1}	4.1×10^{1}	1.1×10^{3}
Rh-102		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	4.5×10^{1}	1.2×10^{3}
Rh-102m		2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.3×10^{2}	6.2×10^{3}
Rh-103m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	1.2×10^{6}	3.3×10^{7}
Rh-105		1.0×10^{1}	2.7×10^{2}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{4}	8.4×10^{5}
Rn-222 (a)	Radon (86)	3.0×10^{-1}	8.1	4.0×10^{-3}	1.1×10^{-1}	5.7×10^{3}	1.5×10^{5}
Ru-97	Ruthenium (44)	5.0	1.4×10^{2}	5.0	1.4×10^{2}	1.7×10^{4}	4.6×10^{5}
Ru-103 (a)		2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.2×10^{3}	3.2×10^{4}
Ru-105		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.5×10^{5}	6.7×10^{6}
Ru-106 (a)		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	1.2×10^{2}	3.3×10^{3}
S-35	Sulphur (16)	4.0×10^{1}	1.1×10^{3}	3.0	8.1×10^{1}	1.6×10^{3}	4.3×10^{4}
Sb-122	Antimony (51)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.5×10^{4}	4.0×10^{5}
Sb-124		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	6.5×10^{2}	1.7×10^{4}

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity (TBq/g)	Specific activity (Ci/g)
Sb-125		2.0	5.4×10^{1}	1.0	2.7×10^{1}	3.9×10^{1}	1.0×10^{3}
Sb-126		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	3.1×10^{3}	8.4×10^{4}
Sc-44	Scandium (21)	5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	6.7×10^{5}	1.8×10^{7}
Sc-46		5.0×10^{-1}	1.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	1.3×10^{3}	3.4×10^{4}
Sc-47		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	3.1×10^{4}	8.3×10^{5}
Sc-48		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.5×10^{4}	1.5×10^{6}
Se-75	Selenium (34)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	5.4×10^{2}	1.5×10^{4}
Se-79		4.0×10^{1}	1.1×10^{3}	2.0	5.4×10^{1}	2.6×10^{-3}	7.0×10^{-2}
Si-31	Silicon (14)	6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.4×10^{6}	3.9×10^{7}
Si-32		4.0×10^{1}	1.1×10^{3}	5.0×10^{-1}	1.4×10^{1}	3.9	1.1×10^{2}
Sm-145	Samarium (62)	1.0×10^{1}	2.7×10^{2}	1.0×10^{1}	2.7×10^{2}	9.8×10^{1}	2.6×10^{3}
Sm-147		Unlimited	Unlimited	Unlimited	Unlimited	8.5×10^{-1}	2.3×10^{-8}
Sm-151		4.0×10^{1}	1.1×10^{3}	1.0×10^{1}	2.7×10^{2}	9.7×10^{-1}	2.6×10^{1}
Sm-153		9.0	2.4×10^{2}	6.0×10^{-1}	1.6×10^{1}	1.6×10^{4}	4.4×10^{5}
Sn-113 (a)	Tin (50)	4.0	1.1×10^{2}	2.0	5.4×10^{1}	3.7×10^{2}	1.0×10^{4}
Sn-117m		7.0	1.9×10^{2}	4.0×10^{-1}	1.1×10^{1}	3.0×10^{3}	8.2×10^{4}
Sn-119m		4.0×10^{1}	1.1×10^{3}	3.0×10^{1}	8.1×10^{2}	1.4×10^{2}	3.7×10^{3}
Sn-121m (a)		4.0×10^{1}	1.1×10^{3}	9.0×10^{-1}	2.4×10^{1}	2.0	5.4×10^{1}
Sn-123		8.0×10^{-1}	2.2×10^{1}	6.0×10^{-1}	1.6×10^{1}	3.0×10^{2}	8.2×10^{3}
Sn-125		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.0×10^{3}	1.1×10^{5}
Sn-126 (a)		6.0×10^{-1}	1.6×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.0×10^{-3}	2.8×10^{-2}
Sr-82 (a)	Strontium (38)	2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	2.3×10^{3}	6.2×10^{4}
Sr-85		2.0	5.4×10^{1}	2.0	5.4×10^{1}	8.8×10^{2}	2.4×10^{4}
Sr-85m		5.0	1.4×10^{2}	5.0	1.4×10^{2}	1.2×10^{6}	3.3×10^{7}
Sr-87m		3.0	8.1×10^{1}	3.0	8.1×10^{1}	4.8×10^{5}	1.3×10^{7}
Sr-89		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.1×10^{3}	2.9×10^{4}
Sr-90 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	5.1	1.4×10^{2}
Sr-91 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.3×10^{5}	3.6×10^{6}
Sr-92 (a)		1.0	2.7×10^{1}	3.0×10^{-1}	8.1	4.7×10^{5}	1.3×10^{7}
T(H-3)	Tritium (1)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.6×10^{2}	9.7×10^{3}
Ta-178 (long-lived).	Tantalum (73)	1.0	2.7×10^{1}	8.0×10^{-1}	2.2×10^{1}	4.2×10^{6}	1.1×10^{8}
Ta-179		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	4.1×10^{1}	1.1×10^{3}
Ta-182		9.0×10^{-1}	2.4×10^{1}	5.0×10^{-1}	1.4×10^{1}	2.3×10^{2}	6.2×10^{3}
Tb-157	Terbium (65)	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	5.6×10^{-1}	1.5×10^{1}
Tb-158		1.0	2.7×10^{1}	1.0	2.7×10^{1}	5.6×10^{-1}	1.5×10^{1}
Tb-160		1.0	2.7×10^{1}	6.0×10^{-1}	1.6×10^{1}	4.2×10^{2}	1.1×10^{4}
Tc-95m (a)	Technetium (43)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	8.3×10^{2}	2.2×10^{4}
Tc-96		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.2×10^{4}	3.2×10^{5}
Tc-96m (a)		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.4×10^{6}	3.8×10^{7}
Tc-97		Unlimited	Unlimited	Unlimited	Unlimited	5.2×10^{-5}	1.4×10^{-3}
Tc-97m		4.0×10^{1}	1.1×10^{3}	1.0	2.7×10^{1}	5.6×10^{2}	1.5×10^{4}
Tc-98		8.0×10^{-1}	2.2×10^{1}	7.0×10^{-1}	1.9×10^{1}	3.2×10^{-5}	8.7×10^{-4}
Tc-99		4.0×10^{1}	1.1×10^{3}	9.0×10^{-1}	2.4×10^{1}	6.3×10^{-4}	1.7×10^{-2}
Tc-99m		1.0×10^{1}	2.7×10^{2}	4.0	1.1×10^{2}	1.9×10^{5}	5.3×10^{6}
Te-121	Tellurium (52)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.4×10^{3}	6.4×10^{4}
Te-121m		5.0	1.4×10^{2}	3.0	8.1×10^{1}	2.6×10^{2}	7.0×10^{3}
Te-123m		8.0	2.2×10^{2}	1.0	2.7×10^{1}	3.3×10^{2}	8.9×10^{3}
Te-125m		2.0×10^{1}	5.4×10^{2}	9.0×10^{-1}	2.4×10^{1}	6.7×10^{2}	1.8×10^{4}
Te-127		2.0×10^{1}	5.4×10^{2}	7.0×10^{-1}	1.9×10^{1}	9.8×10^{4}	2.6×10^{6}
Te-127m (a)		2.0×10^{1}	5.4×10^{2}	5.0×10^{-1}	1.4×10^{1}	3.5×10^{2}	9.4×10^{3}
Te-129		7.0×10^{-1}	1.9×10^{1}	6.0×10^{-1}	1.6×10^{1}	7.7×10^{5}	2.1×10^{7}
Te-129m (a)		8.0×10^{-1}	2.2×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{3}	3.0×10^{4}
Te-131m (a)		7.0×10^{-1}	1.9×10^{1}	5.0×10^{-1}	1.4×10^{1}	3.0×10^{4}	8.0×10^{5}
Te-132 (a)		5.0×10^{-1}	1.4×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.1×10^{4}	8.0×10^{5}
Th-227	Thorium (90)	1.0×10^{1}	2.7×10^{2}	5.0×10^{-3}	1.4×10^{-1}	1.1×10^{3}	3.1×10^{4}
Th-228 (a)		5.0×10^{-1}	1.4×10^{1}	1.0×10^{-3}	2.7×10^{-2}	3.0×10^{1}	8.2×10^{2}
Th-229		5.0	1.4×10^{2}	5.0×10^{-4}	1.4×10^{-2}	7.9×10^{-3}	2.1×10^{-1}
Th-230		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	7.6×10^{-4}	2.1×10^{-2}
Th-231		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.0×10^{4}	5.3×10^{5}
Th-232		Unlimited	Unlimited	Unlimited	Unlimited	4.0×10^{-9}	1.1×10^{-7}
Th-234 (a)		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	8.6×10^{2}	2.3×10^{4}
Th(nat)		Unlimited	Unlimited	Unlimited	Unlimited	8.1×10^{-9}	2.2×10^{-7}
Ti-44 (a)	Titanium (22)	5.0×10^{-1}	1.4×10^{1}	4.0×10^{-1}	1.1×10^{1}	6.4	1.7×10^{2}
Tl-200	Thallium (81)	9.0×10^{-1}	2.4×10^{1}	9.0×10^{-1}	2.4×10^{1}	2.2×10^{4}	6.0×10^{5}
Tl-201		1.0×10^{1}	2.7×10^{2}	4.0	1.1×10^{2}	7.9×10^{3}	2.1×10^{5}
Tl-202		2.0	5.4×10^{1}	2.0	5.4×10^{1}	2.0×10^{3}	5.3×10^{4}
Tl-204		1.0×10^{1}	2.7×10^{2}	7.0×10^{-1}	1.9×10^{1}	1.7×10^{1}	4.6×10^{2}
Tm-167	Thulium (69)	7.0	1.9×10^{2}	8.0×10^{-1}	2.2×10^{1}	3.1×10^{3}	8.5×10^{4}
Tm-170		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.2×10^{2}	6.0×10^{3}

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Tm-171		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}
U-230 (fast lung absorption) (a)(d).	Uranium (92)	4.0×10^{1}	1.1×10^{3}	1.0×10^{-1}	2.7	1.0×10^{3}	2.7×10^{4}
U-230 (medium lung absorption) (a)(e).		4.0×10^{1}	1.1×10^{3}	4.0×10^{-3}	1.1×10^{-1}	1.0×10^{3}	2.7×10^{4}
U-230 (slow lung absorption) (a)(f).		3.0×10^{1}	8.1×10^{2}	3.0×10^{-3}	8.1×10^{-2}	1.0×10^{3}	2.7×10^{4}
U-232 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	1.0×10^{-2}	2.7×10^{-1}	8.3×10^{-1}	2.2×10^{1}
U-232 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	7.0×10^{-3}	1.9×10^{-1}	8.3×10^{-1}	2.2×10^{1}
U-232 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{2}	1.0×10^{-3}	2.7×10^{-2}	8.3×10^{-1}	2.2×10^{1}
U-233 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	9.0×10^{-2}	2.4	3.6×10^{-4}	9.7×10^{-3}
U-233 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	3.6×10^{-4}	9.7×10^{-3}
U-233 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	3.6×10^{-4}	9.7×10^{-3}
U-234 (fast lung absorption) (d).		4.0×10^{1}	1.1×10^{3}	9.0×10^{-2}	2.4	2.3×10^{-4}	6.2×10^{-3}
U-234 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.3×10^{-4}	6.2×10^{-3}
U-234 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	2.3×10^{-4}	6.2×10^{-3}
U-235 (all lung absorption types) (a),(d),(e),(f).		Unlimited	Unlimited	Unlimited	Unlimited	8.0×10^{-8}	2.2×10^{-6}
U-236 (fast lung absorption) (d).		Unlimited	Unlimited	Unlimited	Unlimited	2.4×10^{-6}	6.5×10^{-5}
U-236 (medium lung absorption) (e).		4.0×10^{1}	1.1×10^{3}	2.0×10^{-2}	5.4×10^{-1}	2.4×10^{-6}	6.5×10^{-5}
U-236 (slow lung absorption) (f).		4.0×10^{1}	1.1×10^{3}	6.0×10^{-3}	1.6×10^{-1}	2.4×10^{-6}	6.5×10^{-5}
U-238 (all lung absorption types) (d),(e),(f).		Unlimited	Unlimited	Unlimited	Unlimited	1.2×10^{-8}	3.4×10^{-7}
U (nat)		Unlimited	Unlimited	Unlimited	Unlimited	2.6×10^{-8}	7.1×10^{-7}
U (enriched to 20% or less)(g).		Unlimited	Unlimited	Unlimited	Unlimited	See Table A-4	See Table A-4
U (dep)		Unlimited	Unlimited	Unlimited	Unlimited	See Table A-4	See Table A-4
V-48	Vanadium (23)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	6.3×10^{3}	1.7×10^{5}
V-49		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.0×10^{2}	8.1×10^{3}
W-178 (a)	Tungsten (74)	9.0	2.4×10^{2}	5.0	1.4×10^{2}	1.3×10^{3}	3.4×10^{4}
W-181		3.0×10^{1}	8.1×10^{2}	3.0×10^{1}	8.1×10^{2}	2.2×10^{2}	6.0×10^{3}
W-185		4.0×10^{1}	1.1×10^{3}	8.0×10^{-1}	2.2×10^{1}	3.5×10^{2}	9.4×10^{3}
W-187		2.0	5.4×10^{1}	6.0×10^{-1}	1.6×10^{1}	2.6×10^{4}	7.0×10^{5}
W-188 (a)		4.0×10^{-1}	1.1×10^{1}	3.0×10^{-1}	8.1	3.7×10^{2}	1.0×10^{4}
Xe-122 (a)	Xenon (54)	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	4.8×10^{4}	1.3×10^{6}
Xe-123		2.0	5.4×10^{1}	7.0×10^{-1}	1.9×10^{1}	4.4×10^{5}	1.2×10^{7}
Xe-127		4.0	1.1×10^{2}	2.0	5.4×10^{1}	1.0×10^{3}	2.8×10^{4}
Xe-131m		4.0×10^{1}	1.1×10^{3}	4.0×10^{1}	1.1×10^{3}	3.1×10^{3}	8.4×10^{4}
Xe-133		2.0×10^{1}	5.4×10^{2}	1.0×10^{1}	2.7×10^{2}	6.9×10^{3}	1.9×10^{5}
Xe-135		3.0	8.1×10^{1}	2.0	5.4×10^{1}	9.5×10^{4}	2.6×10^{6}
Y-87 (a)	Yttrium (39)	1.0	2.7×10^{1}	1.0	2.7×10^{1}	1.7×10^{4}	4.5×10^{5}

TABLE A–1.—A_1 AND A_2 VALUES FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Y-88		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	5.2×10^{2}	1.4×10^{4}
Y-90		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	2.0×10^{4}	5.4×10^{5}
Y-91		6.0×10^{-1}	1.6×10^{1}	6.0×10^{-1}	1.6×10^{1}	9.1×10^{2}	2.5×10^{4}
Y-91m		2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.5×10^{6}	4.2×10^{7}
Y-92		2.0×10^{-1}	5.4	2.0×10^{-1}	5.4	3.6×10^{5}	9.6×10^{6}
Y-93		3.0×10^{-1}	8.1	3.0×10^{-1}	8.1	1.2×10^{5}	3.3×10^{6}
Yb-169	Ytterbium (70)	4.0	1.1×10^{2}	1.0	2.7×10^{1}	8.9×10^{2}	2.4×10^{4}
Yb-175		3.0×10^{1}	8.1×10^{2}	9.0×10^{-1}	2.4×10^{1}	6.6×10^{3}	1.8×10^{5}
Zn-65	Zinc (30)	2.0	5.4×10^{1}	2.0	5.4×10^{1}	3.0×10^{2}	8.2×10^{3}
Zn-69		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.8×10^{6}	4.9×10^{7}
Zn-69m (a)		3.0	8.1×10^{1}	6.0×10^{-1}	1.6×10^{1}	1.2×10^{5}	3.3×10^{6}
Zr-88	Zirconium (40)	3.0	8.1×10^{1}	3.0	8.1×10^{1}	6.6×10^{2}	1.8×10^{4}
Zr-93		Unlimited	Unlimited	Unlimited	Unlimited	9.3×10^{-5}	2.5×10^{-3}
Zr-95 (a)		2.0	5.4×10^{1}	8.0×10^{-1}	2.2×10^{1}	7.9×10^{2}	2.1×10^{4}
Zr-97 (a)		4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	7.1×10^{4}	1.9×10^{6}

[a] A_1 and/or A_2 values include contributions from daughter nuclides with half-lives less than 10 days.
[b] [Reserved]
[c] The quantity may be determined from a measurement of the rate of decay or a measurement of the radiation level at a prescribed distance from the source.
[d] These values apply only to compounds of uranium that take the chemical form of UF_6, UO_2F_2 and $UO_2(NO_3)_2$ in both normal and accident conditions of transport.
[e] These values apply only to compounds of uranium that take the chemical form of UO_3, UF_4, UCl_4 and hexavalent compounds in both normal and accident conditions of transport.
[f] These values apply to all compounds of uranium other than those specified in notes (d) and (e) of this table.
[g] These values apply to unirradiated uranium only.
[h] A_1 = 0.1 TBq (2.7 Ci) and A_2 = 0.001 TBq (0.027 Ci) for Cf-252 for domestic use.
[i] A_2 = 0.74 TBq (20 Ci) for Mo-99 for domestic use.

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Ac-225	Actinium (89)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Ac-227		1.0×10^{-1}	2.7×10^{-12}	1.0×10^{3}	2.7×10^{-8}
Ac-228		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-105	Silver (47)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ag-108m (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-110m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ag-111		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Al-26	Aluminum (13)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Am-241	Americium (95)	1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Am-242m (b)		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Am-243 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Ar-37	Argon (18)	1.0×10^{6}	2.7×10^{-5}	1.0×10^{8}	2.7×10^{-3}
Ar-39		1.0×10^{7}	2.7×10^{-4}	1.0×10^{4}	2.7×10^{-7}
Ar-41		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
As-72	Arsenic (33)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
As-73		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
As-74		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
As-76		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
As-77		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
At-211	Astatine (85)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Au-193	Gold (79)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Au-194		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Au-195		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Au-198		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Au-199		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-131	Barium (56)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-133		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-133m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ba-140 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Be-7	Beryllium (4)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Be-10		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Bi-205	Bismuth (83)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Bi-206		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bi-207		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Bi-210		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Bi-210m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bi-212 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Bk-247	Berkelium (97)	1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Bk-249		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Br-76	Bromine (35)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Br-77		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Br-82		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
C-11	Carbon (6)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
C-14		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Ca-41	Calcium (20)	1.0×10^{5}	2.7×10^{-6}	1.0×10^{7}	2.7×10^{-4}
Ca-45		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Ca-47		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Cd-109	Cadmium (48)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Cd-113m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Cd-115		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cd-115m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Ce-139	Cerium (58)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ce-141		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ce-143		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ce-144 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cf-248	Californium (98)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-249		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cf-250		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-251		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cf-252		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cf-253		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cf-254		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cl-36	Chlorine (17)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Cl-38		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cm-240	Curium (96)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cm-241		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cm-242		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cm-243		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Cm-244		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cm-245		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cm-246		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Cm-247		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Cm-248		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Co-55	Cobalt (27)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Co-56		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Co-57		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Co-58		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Co-58m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Co-60		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cr-51	Chromium (24)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Cs-129	Cesium (55)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Cs-131		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Cs-132		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cs-134		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cs-134m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Cs-135		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Cs-136		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Cs-137 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Cu-64	Copper (29)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Cu-67		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Dy-159	Dysprosium (66)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Dy-165		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Dy-166		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Er-169	Erbium (68)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Er-171		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-147	Europium (63)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-148		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-149		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Eu-150 (short lived)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Eu-150 (long lived)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-152		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Eu-152m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Eu-154		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Eu-155		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Eu-156		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
F-18	Fluorine (9)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-52	Iron (26)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-55		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Fe-59		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Fe-60		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ga-67	Gallium (31)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ga-68		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ga-72		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Gd-146	Gadolinium (64)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Gd-148		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Gd-153		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Gd-159		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Ge-68	Germanium (32)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ge-71		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Ge-77		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Hf-172	Hafnium (72)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hf-175		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hf-181		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hf-182		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-194	Mercury (80)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Hg-195m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-197		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Hg-197m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Hg-203		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ho-166	Holmium (67)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Ho-166m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-123	Iodine (53)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
I-124		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-125		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
I-126		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
I-129		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
I-131		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
I-132		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
I-133		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
I-134		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
I-135		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
In-111	Indium (49)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-113m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-114m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
In-115m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ir-189	Iridium (77)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ir-190		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ir-192		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Ir-194		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
K-40	Potassium (19)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
K-42		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
K-43		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Kr-81	Krypton (36)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Kr-85		1.0×10^{5}	2.7×10^{-6}	1.0×10^{4}	2.7×10^{-7}
Kr-85m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{10}	2.7×10^{-1}
Kr-87		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
La-137	Lanthanum (57)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
La-140		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Lu-172	Lutetium (71)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Lu-173		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-174		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-174m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Lu-177		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Mg-28	Magnesium (12)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Mn-52	Manganese (25)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Mn-53		1.0×10^{4}	2.7×10^{-7}	1.0×10^{9}	2.7×10^{-2}
Mn-54		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Mn-56		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Mo-93	Molybdenum (42)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}
Mo-99		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
N-13	Nitrogen (7)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Na-22	Sodium (11)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Na-24		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Nb-93m	Niobium (41)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Nb-94		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nb-95		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nb-97		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Nd-147	Neodymium (60)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Nd-149		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ni-59	Nickel (28)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Ni-63		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Ni-65		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Np-235	Neptunium (93)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Np-236 (short-lived)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Np-236 (long-lived)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Np-237 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Np-239		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Os-185	Osmium (76)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Os-191		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Os-191m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Os-193		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Os-194		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
P-32	Phosphorus (15)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
P-33		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Pa-230	Protactinium (91)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pa-231		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Pa-233		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Pb-201	Lead (82)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pb-202		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pb-203		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pb-205		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pb-210 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pb-212 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Pd-103	Palladium (46)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}
Pd-107		1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Pd-109		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pm-143	Promethium (61)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pm-144		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pm-145		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pm-147		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pm-148m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pm-149		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pm-151		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Po-210	Polonium (84)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pr-142	Praseodymium (59)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Pr-143		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Pt-188	Platinum (78)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Pt-191		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pt-193		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Pt-193m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pt-195m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pt-197		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Pt-197m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Pu-236	Plutonium (94)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Pu-237		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Pu-238		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-239		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-240		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Pu-241		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Pu-242		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Pu-244		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Ra-223 (b)	Radium (88)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ra-224 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Ra-225		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Ra-226 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Ra-228 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Rb-81	Rubidium (37)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rb-83		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Rb-84		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rb-86		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Rb-87		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Rb(nat)		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Re-184	Rhenium (75)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Re-184m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Re-186		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Re-187		1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Re-188		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Re-189		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Re(nat)		1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Rh-99	Rhodium (45)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rh-101		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Rh-102		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Rh-102m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Rh-103m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Rh-105		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Rn-222 (b)	Radon (86)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{8}	2.7×10^{-3}
Ru-97	Ruthenium (44)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Ru-103		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Ru-105		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ru-106 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
S-35	Sulphur (16)	1.0×10^{5}	2.7×10^{-6}	1.0×10^{8}	2.7×10^{-3}
Sb-122	Antimony (51)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{4}	2.7×10^{-7}
Sb-124		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Sb-125		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sb-126		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sc-44	Scandium (21)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sc-46		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Sc-47		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sc-48		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Se-75	Selenium (34)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Se-79		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Si-31	Silicon (14)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Si-32		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sm-145	Samarium (62)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Sm-147		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Sm-151		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
Sm-153		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sn-113	Tin (50)	1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-117m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sn-119m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-121m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Sn-123		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sn-125		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Sn-126		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-82	Strontium (38)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-85		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sr-85m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Sr-87m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Sr-89		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Sr-90 (b)		1.0×10^{2}	2.7×10^{-9}	1.0×10^{4}	2.7×10^{-7}
Sr-91		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Sr-92		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
T(H-3)	Tritium (1)	1.0×10^{6}	2.7×10^{-5}	1.0×10^{9}	2.7×10^{-2}
Ta-178 (long-lived)	Tantalum (73)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Ta-179		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Ta-182		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Tb-157	Terbium (65)	1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Tb-158		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tb-160		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-95m	Technetium (43)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-96		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-96m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
Tc-97		1.0×10^{3}	2.7×10^{-8}	1.0×10^{8}	2.7×10^{-3}
Tc-97m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Tc-98		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tc-99		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
Tc-99m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Te-121	Tellurium (52)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Te-121m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Te-123m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Te-125m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Te-127		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Te-127m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Te-129		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Te-129m		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Te-131m		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Te-132		1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Th-227	Thorium (90)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Th-228 (b)		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Th-229 (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Th-230		1.0	2.7×10^{-11}	1.0×10^{4}	2.7×10^{-7}
Th-231		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Th-232		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
Th-234 (b)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Th (nat) (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
Ti-44	Titanium (22)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
Tl-200	Thallium (81)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Tl-201		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tl-202		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tl-204		1.0×10^{4}	2.7×10^{-7}	1.0×10^{4}	2.7×10^{-7}
Tm-167	Thulium (69)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Tm-170		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Tm-171		1.0×10^{4}	2.7×10^{-7}	1.0×10^{8}	2.7×10^{-3}
U-230 (fast lung absorption) (b),(d).	Uranium (92)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-230 (medium lung absorption) (e).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-230 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-232 (fast lung absorption) (b),(d).		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
U-232 (medium lung absorption) (e).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-232 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-233 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-233 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-233 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-234 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-234 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-234 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
U-235 (all lung absorption types) (b),(d),(e),(f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-236 (fast lung absorption) (d).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-236 (medium lung absorption) (e).		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
U-236 (slow lung absorption) (f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U-238 (all lung absorption types) (b),(d),(e),(f).		1.0×10^{1}	2.7×10^{-10}	1.0×10^{4}	2.7×10^{-7}
U (nat) (b)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}

TABLE A–2.—EXEMPT MATERIAL ACTIVITY CONCENTRATIONS AND EXEMPT CONSIGNMENT ACTIVITY LIMITS FOR RADIONUCLIDES—Continued

Symbol of radionuclide	Element and atomic number	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit for exempt consignment (Ci)
U (enriched to 20% or less)(g).		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
U (dep)		1.0	2.7×10^{-11}	1.0×10^{3}	2.7×10^{-8}
V-48	Vanadium (23)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}
V-49		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
W-178	Tungsten (74)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
W-181		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
W-185		1.0×10^{4}	2.7×10^{-7}	1.0×10^{7}	2.7×10^{-4}
W-187		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
W-188		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Xe-122	Xenon (54)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Xe-123		1.0×10^{2}	2.7×10^{-9}	1.0×10^{9}	2.7×10^{-2}
Xe-127		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Xe-131m		1.0×10^{4}	2.7×10^{-7}	1.0×10^{4}	2.7×10^{-7}
Xe-133		1.0×10^{3}	2.7×10^{-8}	1.0×10^{4}	2.7×10^{-7}
Xe-135		1.0×10^{3}	2.7×10^{-8}	1.0×10^{10}	2.7×10^{-1}
Y-87	Yttrium (39)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Y-88		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Y-90		1.0×10^{3}	2.7×10^{-8}	1.0×10^{5}	2.7×10^{-6}
Y-91		1.0×10^{3}	2.7×10^{-8}	1.0×10^{6}	2.7×10^{-5}
Y-91m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Y-92		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Y-93		1.0×10^{2}	2.7×10^{-9}	1.0×10^{5}	2.7×10^{-6}
Yb-169	Ytterbium (70)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{7}	2.7×10^{-4}
Yb-175		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Zn-65	Zinc (30)	1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Zn-69		1.0×10^{4}	2.7×10^{-7}	1.0×10^{6}	2.7×10^{-5}
Zn-69m		1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Zr-88	Zirconium (40)	1.0×10^{2}	2.7×10^{-9}	1.0×10^{6}	2.7×10^{-5}
Zr-93 (b)		1.0×10^{3}	2.7×10^{-8}	1.0×10^{7}	2.7×10^{-4}
Zr-95		1.0×10^{1}	2.7×10^{-10}	1.0×10^{6}	2.7×10^{-5}
Zr-97 (b)		1.0×10^{1}	2.7×10^{-10}	1.0×10^{5}	2.7×10^{-6}

[a] [Reserved]

[b] Parent nuclides and their progeny included in secular equilibrium are listed in the following:

Sr-90 Y-90
Zr-93 Nb-93m
Zr-97 Nb-97
Ru-106 Rh-106
Cs-137 Ba-137m
Ce-134 La-134
Ce-144 Pr-144
Ba-140 La-140
Bi-212 Tl-208 (0.36), Po-212 (0.64)
Pb-210 Bi-210, Po-210
Pb-212 Bi-212, Tl-208 (0.36), Po-212 (0.64)
Rn-220 Po-216
Rn-222 Po-218, Pb-214, Bi-214, Po-214
Ra-223 Rn-219, Po-215, Pb-211, Bi-211, Tl-207
Ra-224 Rn-220, Po-216, Pb-212, Bi-212, Tl-208(0.36), Po-212 (0.64)
Ra-226 Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
Ra-228 Ac-228
Th-226 Ra-222, Rn-218, Po-214
Th-228 Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-229 Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
Th-nat Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-234 Pa-234m
U-230 Th-226, Ra-222, Rn-218, Po-214
U-232 Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
U-235 Th-231
U-238 Th-234, Pa-234m
U-nat Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
U-240 Np-240m
Np-237 Pa-233
Am-242m Am-242
Am-243 Np-239

[c] [Reserved]

[d] These values apply only to compounds of uranium that take the chemical form of UF_6, UO_2F_2 and $UO_2(NO_3)_2$ in both normal and accident conditions of transport.

[e] These values apply only to compounds of uranium that take the chemical form of UO_3, UF_4, UCl_4 and hexavalent compounds in both normal and accident conditions of transport.

[f] These values apply to all compounds of uranium other than those specified in notes (d) and (e) of this table.

[ε] These values apply to unirradiated uranium only.

TABLE A–3.—GENERAL VALUES FOR A_1 AND A_2

Contents	A_1		A_2		Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limits for exempt consignments (Bq)	Activity limits for exempt consignments (Ci)
	(TBq)	(Ci)	(TBq)	(Ci)				
Only beta or gamma emitting radionuclides are known to be present.	1×10^{-1}	2.7×10^{0}	2×10^{-2}	5.4×10^{-1}	1×10^{-1}	2.7×10^{-10}	1×10^{-4}	2.7×10^{-7}
Only alpha emitting radionuclides are known to be present.	2×10^{-1}	5.4×10^{0}	9×10^{-5}	2.4×10^{-3}	1×10^{-1}	2.7×10^{-12}	1×10^{3}	2.7×10^{-8}
No relevant data are available	1×10^{-3}	2.7×10^{-2}	9×10^{-5}	2.4×10^{-3}	1×10^{-1}	2.7×10^{-12}	1×10^{3}	2.7×10^{-8}

TABLE A–4.—ACTIVITY-MASS RELATIONSHIPS FOR URANIUM

Uranium Enrichment [1] wt % U–235 present	Specific Activity	
	TBq/g	Ci/g
0.45	1.8×10^{-8}	5.0×10^{-7}
0.72	2.6×10^{-8}	7.1×10^{-7}
1	2.8×10^{-8}	7.6×10^{-7}
1.5	3.7×10^{-8}	1.0×10^{-6}
5	1.0×10^{-7}	2.7×10^{-6}
10	1.8×10^{-7}	4.8×10^{-6}
20	3.7×10^{-7}	1.0×10^{-5}
35	7.4×10^{-7}	2.0×10^{-5}
50	9.3×10^{-7}	2.5×10^{-5}
90	2.2×10^{-6}	2.8×10^{-5}
93	2.6×10^{-6}	7.0×10^{-5}
95	3.4×10^{-6}	9.1×10^{-5}

[1] The figures for uranium include representative values for the activity of the uranium-234 that is concentrated during the enrichment process.

Dated in Rockville, Maryland, this 29th day of December, 2003.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,

Secretary of the Commission.

[FR Doc. 04–35 Filed 1–23–04; 8:45 am]

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Federal Register

Monday,
January 26, 2004

Part IV

Department of Labor

Employee Benefits Security Administration

29 CFR Part 2590
Mental Health Parity; Final Rule

DEPARTMENT OF LABOR

Employee Benefits Security Administration

29 CFR Part 2590

RIN 1210–AA62

Mental Health Parity

AGENCY: Employee Benefits Security Administration, Department of Labor.

ACTION: Interim final amendment to regulation.

SUMMARY: This document contains an interim final amendment to modify the sunset date of interim final regulations under the Mental Health Parity Act (MHPA) to be consistent with legislation passed during the 108th Congress.

DATES: *Effective date.* The interim final amendment is effective December 19, 2003.

Applicability dates. The requirements of the interim final amendment apply to group health plans and health insurance issuers offering health insurance coverage in connection with a group health plan beginning December 19, 2003. The MHPA interim final amendment extends the sunset date from December 31, 2003 to December 31, 2004. Pursuant to the extended sunset date, MHPA requirements apply to benefits for services furnished before December 31, 2004.

FOR FURTHER INFORMATION CONTACT: Lisa Campbell, Employee Benefits Security Administration, Department of Labor, at (202) 693–8335.

SUPPLEMENTARY INFORMATION:

Customer Service Information: Individuals interested in obtaining additional information on the Mental Health Parity Act and other health care laws may request copies of Department of Labor publications concerning changes in health care law by calling the EBSA Toll-Free Hotline at 1–866–444–EBSA (3272), or access the publications on-line at *http://www.dol.gov/ebsa*, the Department of Labor's Web site. Information on the Mental Health Parity Act and other health care laws is also available on the Department of Labor's interactive Web pages, Health *E*laws (*http://www.dol.gov/elaws/ebsa/health*).

A. Background

The Mental Health Parity Act of 1996 (MHPA) was enacted on September 26, 1996 (Pub. L. 104–204, 110 Stat. 2944). MHPA amended the Employee Retirement Income Security Act of 1974 (ERISA) and the Public Health Service Act (PHS Act) to provide for parity in the application of annual and lifetime dollar limits on mental health benefits with dollar limits on medical/surgical benefits. Provisions implementing MHPA were later added to the Internal Revenue Code of 1986 (Code) under the Taxpayer Relief Act of 1997 (Pub. L. 105–34, 111 Stat. 1080).

The provisions of MHPA, as originally enacted, are set forth in Part 7 of Subtitle B of Title I of ERISA, Chapter 100 of Subtitle K of the Code, and Title XXVII of the PHS Act.[1] The MHPA provisions in ERISA generally apply to all group health plans other than governmental plans, church plans, and certain other plans. These provisions also apply to health insurance issuers that offer health insurance coverage in connection with such group health plans. Generally, the Secretary of Labor enforces the MHPA provisions in ERISA, except that no enforcement action may be taken by the Secretary against issuers. However, individuals may generally pursue actions against issuers under ERISA and, in some circumstances, under state law.

B. Overview of MHPA

The MHPA provisions set forth in section 712 of ERISA apply to a group health plan (or health insurance coverage offered by issuers in connection with a group health plan) that provides both medical/surgical benefits and mental health benefits. MHPA's original text included a sunset provision specifying that MHPA's provisions applied to benefits for services furnished before September 30, 2001. On December 22, 1997, the Departments of Labor, the Treasury, and Health and Human Services issued interim final regulations under MHPA in the **Federal Register** (62 FR 66931). The interim final regulations included this statutory sunset date.

On January 10, 2002, President Bush signed H.R. 3061 (Pub. L. 107–116, 115 Stat. 2177), the 2002 Appropriations Act for the Departments of Labor, Health and Human Services, and Education.[2] This legislation extended MHPA's original sunset date under ERISA, the Code, and the PHS Act, so that MHPA's provisions would apply to benefits for services furnished before December 31, 2002.

On March 9, 2002, President Bush signed H.R. 3090, the Job Creation and Worker Assistance Act of 2002 (Pub. L. 107–147, 116 Stat. 21), that included an amendment to section 9812 of the Code (the mental health parity provisions). This legislation further extended MHPA's original sunset date under the Code to December 31, 2003.

On September 27, 2002, the Department of Labor issued an interim final amendment for mental health parity in the **Federal Register** (67 FR 60859). The interim final amendment included the new statutory sunset date under H.R. 3061, so that MHPA's provisions would apply to benefits for services furnished before December 31, 2002. The Department made the effective date of this interim final amendment to the regulations September 30, 2001.

On December 2, 2002, President Bush signed H.R. 5716, the Mental Health Parity Reauthorization Act of 2002 (Pub. L. 107–313, 116 Stat. 2457), an amendment to section 712 of ERISA and Section 2705 of the PHS Act. This legislation further extended MHPA's original sunset date under ERISA and the PHS Act to December 31, 2003. On April 14, 2003, the Department of Labor issued an interim final amendment for mental health parity in the **Federal Register** (68 FR 18048). The interim final amendment included the new statutory sunset date under H.R. 5716, so that MHPA's provisions would apply to benefits for services furnished before December 31, 2003.

On December 19, 2003, President Bush signed S. 1929, the Mental Health Parity Reauthorization Act of 2003 (Pub. L. 108–197, 117 Stat. 2998), an amendment to section 712 of ERISA and Section 2705 of the PHS Act. This legislation further extends MHPA's original sunset date under ERISA and the PHS Act to December 31, 2004. Like MHPA, this amendment to MHPA applies to a group health plan (or health insurance coverage offered by issuers in connection with a group health plan) that provides both medical/surgical benefits and mental health benefits.[3] As

[1] Part 7 of Subtitle B of Title I of ERISA, Chapter 100 of Subtitle K of the Code, and Title XXVII of the PHS Act were added by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Pub. L. 104–191.

[2] During the 107th Congress, legislation was passed by the Senate to substantively amend and expand the provisions of MHPA already in place. This legislation was offered as an amendment to the provisions of H.R. 3061. The Conference Report accompanying the underlying provisions of H.R. 3061 states that instead of the amendment proposed by the Senate, the amendment to MHPA contained in H.R. 3061 extends the original sunset date of MHPA, so that MHPA's provisions apply to benefits for services furnished before December 31, 2002. H.R. Rep. 107–342, at 170 (2001).

[3] The parity requirements under MHPA, the interim regulations, and the amendment to the interim regulations do not apply to any group health plan (or health insurance coverage offered in connection with a group health plan) for any plan year of a small employer. The term "small employer" is defined as an employer who employed an average of at least 2 but not more than 50 employees on business days during the preceding calendar year and who employs at least 2 employees on the first day of the plan year.

a result of this statutory amendment, and to assist employers, plan sponsors, health insurance issuers, and workers, the Department of Labor has developed this amendment of the interim final regulations, in consultation with the Department of Health and Human Services, conforming the regulatory sunset date to the new statutory sunset date. The Department is also making conforming changes extending the duration of the increased cost exemption to be consistent with the new sunset date.

Since the extension of this sunset date is not discretionary, this amendment to the MHPA regulations is promulgated on an interim final basis pursuant to Section 734 of ERISA. This interim final amendment is also promulgated pursuant to Section 553(d)(3) of the Administrative Procedure Act, allowing for regulations to become effective immediately for good cause.

C. Executive Order 12866

Under Executive Order 12866, the Department must determine whether a regulatory action is "significant" and therefore subject to the requirements of the Executive Order and subject to review by the Office of Management and Budget (OMB). Under section 3(f), the order defines a "significant regulatory action" as an action that is likely to result in a rule: (1) having an annual effect on the economy of $100 million or more, or adversely and materially affecting a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local or tribal governments or communities (also referred to as "economically significant"); (2) creating serious inconsistency or otherwise interfering with an action taken or planned by another agency; (3) materially altering the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raising novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of the Executive Order, it has been determined that this action is not a "significant regulatory action" within the meaning of the Executive Order. This action is an amendment to the interim final regulations and merely extends the regulatory sunset date to conform to the new statutory sunset date added by S. 1929.

D. Paperwork Reduction Act

The information collection provisions of MHPA incorporated in the Department's interim final rules are currently approved under OMB control numbers 1210–0105 (Notice to Participants and Beneficiaries and Federal Government of Electing One Percent Increased Cost Exemption), and 1210–0106 (Calculation and Disclosure of Documentation of Eligibility for Exemption). These information collection requests are approved through November 30, 2004 and October 31, 2004, respectively. Because no substantive or material change is made to the approved information collection provisions in connection with this interim final amendment, no submission for continuing OMB approval is required or made at this time.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) (RFA) imposes certain requirements with respect to federal rules that are subject to the notice and comment requirements of section 553(b) of the Administrative Procedure Act (5 U.S.C. 551 *et seq.*). Because this amendment to the interim final regulations is being published on an interim final basis, without prior notice and a period for comment, the Regulatory Flexibility Act does not apply.

F. Unfunded Mandates Reform Act

For purposes of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) (UMRA), as well as Executive Order 12875, this interim final amendment does not include any federal mandate that may result in expenditures by state, local, or tribal governments, and does not include mandates that may impose an annual expenditure of $100 million or more on the private sector.

G. Congressional Review Act

This interim final amendment is subject to the Congressional Review Act provisions of the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 801 *et seq.*) (SBREFA), and has been transmitted to Congress and the Comptroller General for review. This amendment to the interim final regulations is not a major rule, as that term is defined by 5 U.S.C. 804.

H. Federalism Statement

Executive Order 13132 (August 4, 1999) outlines fundamental principles of federalism and requires the adherence to specific criteria by federal agencies in the process of their formulation and implementation of policies that have substantial direct effects on the states, the relationship between the states, the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. This interim final amendment does not have federalism implications as it only conforms the regulatory sunset date to the new statutory sunset date added by S. 1929.

List of Subjects in 29 CFR Part 2590

Employee benefit plans, Employee Retirement Income Security Act, Health care, Health insurance, Medical child support, Reporting and recordkeeping requirements.

Employee Benefits Security Administration

■ 29 CFR part 2590 is amended as follows:

PART 2590—RULES AND REGULATIONS FOR HEALTH INSURANCE PORTABILITY AND RENEWABILITY FOR GROUP HEALTH PLANS

■ 1. The authority citation for part 2590 is amended to read:

Authority: 29 U.S.C. 1027, 1059, 1135, 1169, 1181–1183, 1181 note, 1185, 1185a, 1185b, 1191, 1191a, 1191b, and 1191c, sec. 101(g), Pub. L. 104–191, 101 Stat. 1936; sec. 401(b), Pub. L. 105–200, 112 Stat. 645 (42 U.S.C. 651 note); Secretary of Labor's Order 1–2003, 68 FR 5374 (Feb. 3, 2003).

§2590.712 [Amended]

■ 2. Amend § 2590.712 (f)(1), (g)(2), and (i) to remove the date "December 31, 2003" and add in its place the date "December 31, 2004.

Signed at Washington, DC this 16th day of January, 2004.

Ann L. Combs,

Assistant Secretary, Employee Benefits Security Administration.

[FR Doc. 04–1517 Filed 1–23–04; 8:45 am]

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REMINDERS

The items in this list were editorially compiled as an aid to Federal Register users. Inclusion or exclusion from this list has no legal significance.

RULES GOING INTO EFFECT JANUARY 26, 2004

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Air quality implementation plans; approval and promulgation; various States:

Delaware; published 11-26-03

Indiana; published 12-11-03

Missouri; published 11-26-03

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

Federal sector equal employment opportunity:

Notification and Federal Employee Antidiscrimination and Retaliation Act; Title III; published 1-26-04

FEDERAL COMMUNICATIONS COMMISSION

Radio spectrum, efficient use promotion; secondary markets development; regulatory barriers elimination; published 11-25-03

Television broadcasting:

Cable television systems—

Cable Operations and Licensing System; electronic filing by Multichannel Video Programming Distributors; published 1-26-04

TRANSPORTATION DEPARTMENT

Federal Aviation Administration

Airworthiness directives:

Eurocopter France; published 1-9-04

COMMENTS DUE NEXT WEEK

AGRICULTURE DEPARTMENT

Agricultural Marketing Service

Organic producers and marketers; exemption from assessments for market promotion activities; comments due by 2-2-04; published 12-30-03 [FR 03-31945]

COMMERCE DEPARTMENT

National Oceanic and Atmospheric Administration

Fishery conservation and management:

Alaska; fisheries of Exclusive Economic Zone—

Gulf of Alaska groundfish; comments due by 2-2-04; published 12-2-03 [FR 03-29940]

COMMERCE DEPARTMENT

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Trademark cases:

Registrations; amendment and correction requirements; comments due by 2-2-04; published 12-18-03 [FR 03-31094]

COURT SERVICES AND OFFENDER SUPERVISION AGENCY FOR THE DISTRICT OF COLUMBIA

Semi-annual agenda; Open for comments until further notice; published 12-22-03 [FR 03-25121]

ENERGY DEPARTMENT

Climate change:

Voluntary Greenhouse Gas Reporting Program; general guidelines; comment request and public workshop; comments due by 2-3-04; published 12-5-03 [FR 03-29983]

Worker Safety and Health; chronic beryllium disease prevention programs; comments due by 2-6-04; published 12-8-03 [FR 03-30287]

ENERGY DEPARTMENT

Federal Energy Regulatory Commission

Electric rate and corporate regulation filings:

Virginia Electric & Power Co. et al.; Open for comments until further notice; published 10-1-03 [FR 03-24818]

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Ozone Air Quality; State and Tribal 8-hour designation recommendations

Agency responses; availability; comments due by 2-6-04; published 12-10-03 [FR 03-30582]

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Minnesota and Texas; Open for comments until further notice; published 10-16-03 [FR 03-26087]

Superfund program:

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LIST OF PUBLIC LAWS

Note: The List of Public Laws for the first session of the 108th Congress has been completed. It will resume when bills are enacted into public law during the next session of Congress. A cumulative List of Public Laws for the first session of the 108th Congress will appear in the issue of January 30, 2004.

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[1] Because Title 3 is an annual compilation, this volume and all previous volumes should be retained as a permanent reference source.

[2] The July 1, 1985 edition of 32 CFR Parts 1–189 contains a note only for Parts 1–39 inclusive. For the full text of the Defense Acquisition Regulations in Parts 1–39, consult the three CFR volumes issued as of July 1, 1984, containing those parts.

[3] The July 1, 1985 edition of 41 CFR Chapters 1–100 contains a note only for Chapters 1 to 49 inclusive. For the full text of procurement regulations in Chapters 1 to 49, consult the eleven CFR volumes issued as of July 1, 1984 containing those chapters.

[4] No amendments to this volume were promulgated during the period January 1, 2002, through January 1, 2003. The CFR volume issued as of January 1, 2002 should be retained.

[5] No amendments to this volume were promulgated during the period April 1, 2000, through April 1, 2003. The CFR volume issued as of April 1, 2000 should be retained.

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