



# Federal Register

1-5-06

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Thursday

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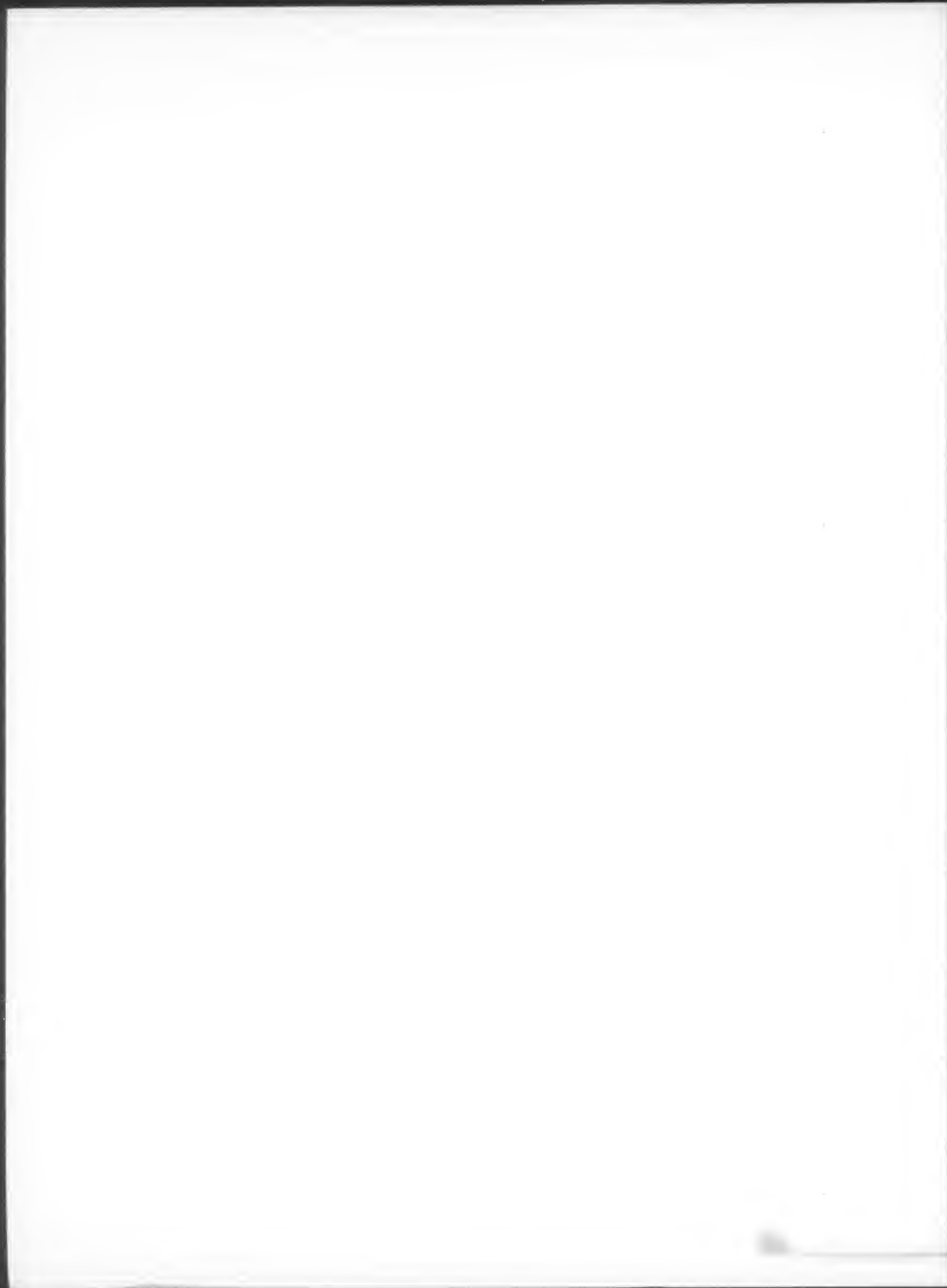
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**FOR:** Any person who uses the Federal Register and Code of Federal Regulations.

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**WHAT:** Free public briefings (approximately 3 hours) to present:

1. The regulatory process, with a focus on the Federal Register system and the public's role in the development of regulations.
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4. An introduction to the finding aids of the FR/CFR system.

**WHY:** To provide the public with access to information necessary to research Federal agency regulations which directly affect them. There will be no discussion of specific agency regulations.

**WHEN:** Wednesday, January 11, 2006  
 9:00 a.m.-Noon

**WHERE:** Office of the Federal Register  
 Conference Room, Suite 700  
 800 North Capitol Street, NW  
 Washington, DC 20002

**RESERVATIONS:** (202) 741-6008





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The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 23

#### Airworthiness Standards: Normal, Utility, Acrobatic, and Commuter Category Airplanes; Correction

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Correcting amendment.

**SUMMARY:** This document makes a correction to the final rule published in the *Federal Register* on August 6, 1993 (58 FR 42165). That rule changed airframe and flight airworthiness standards for normal, utility, acrobatic and commuter category airplanes.

**DATES:** *Effective Date:* This correction is effective on January 5, 2006.

**FOR FURTHER INFORMATION CONTACT:** Joan Allen, telephone (202) 267-7037.

#### SUPPLEMENTARY INFORMATION:

##### Need for Correction

As published, the final regulation contains an error which may be misleading and needs to be clarified.

##### List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

■ Accordingly, 14 CFR part 23 is corrected by making the following correcting amendment:

■ 1. The authority citation for part 23 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701-44702, 44704.

■ 2. Revise paragraph (b) of § 23.773 to read as follows:

##### § 23.773 Pilot compartment view.

\* \* \* \* \*

(b) Each pilot compartment must have a means to either remove or prevent the formation of fog or frost on an area of

the internal portion of the windshield and side windows sufficiently large to provide the view specified in paragraph (a)(1) of this section. Compliance must be shown under all expected external and internal ambient operating conditions, unless it can be shown that the windshield and side windows can be easily cleared by the pilot without interruption of normal pilot duties.

Issued in Washington, DC, on December 29, 2005.

**Anthony F. Fazio,**  
*Director, Office of Rulemaking.*

[FR Doc. 06-85 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 71

[Docket No. FAA-2005-23375; Airspace Docket No. 05-ACE-35]

#### Modification of Class E Airspace; Beatrice, NE

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Direct final rule; request for comments.

**SUMMARY:** This action amend Title 14 Code of Federal Regulations, part 71 (14 CFR part 71) by modifying Class E airspace at Beatrice, NE. The establishment of a Very High Frequency Omni-directional Range (VOR) Instrument Approach Procedure (IAP) to Runway 17 has made this action necessary. Additional controlled airspace extending upward from 700 feet above the surface is needed to contain aircraft executing this IAP. The intended effect of this rule is to provide adequate controlled airspace for Instrument Flight Rules operations at Beatrice Municipal Airport, Beatrice, NE.

**DATES:** This direct final rule is effective on 0901 UTC, April 13, 2006. Comments for inclusion in the Rules Docket must be received on or before January 27, 2006.

**ADDRESSES:** Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590-0001. You must identify the

docket number FAA-2005-23375/ Airspace Docket No. 05-ACE-35, at the beginning of your comments. You may also submit comments on the Internet at <http://dms.dot.gov>. You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

**FOR FURTHER INFORMATION CONTACT:** Brenda Mumper, Air Traffic Division, Airspace Branch, ACE-520A, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329-2524.

**SUPPLEMENTARY INFORMATION:** This amendment to 14 CFR 71 modifies the Class E airspace area extending upward from 700 feet above the surface at Beatrice, NE. These modifications provide controlled airspace of appropriate dimensions to protect aircraft executing IAPs to Beatrice Municipal Airport and bring the legal description of the Beatrice, NE Class E airspace area into compliance with FAA Orders 7400.2E and 8260.19C. This area will be depicted on appropriate aeronautical charts. Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in paragraph 6005 of FAA Order 7400.9N, Airspace Designations and Reporting Points, dated September 1, 2005, and effective September 16, 2005, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in the Order.

#### The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. Unless a written adverse or negative comment or a written notice of intent to submit an adverse or negative comments is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will

publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

#### Comment Invited

Interested parties are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. FAA-2005-23375/Airspace Docket No. 05-ACE-35." The postcard will be date/time stamped and returned to the commenter.

#### Agency Findings

The regulations adopted herein will 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 final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation—(1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it

is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority since it contains aircraft executing instrument approach procedures to Beatrice Municipal Airport, Beatrice, NE.

#### List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

#### Adoption of the Amendment

■ Accordingly, the Federal Aviation Administration amends 14 CFR part 71 as follows:

#### PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959-1963 Comp., p. 389.

#### § 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 if Federal Aviation Administration Order 7400.9N, dated September 1, 2005, and effective September 16, 2005, is amended as follows:

*Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.*

\* \* \* \* \*

#### ACE NE E5 Beatrice, NE

Beatrice Municipal Airport, NE  
(Lat. 40°18'05" N., long. 96°45'15" W.)

Shaw NDB

(Lat. 40°15'54" N., long. 96°45'25" W.)

That airspace extending upward from 700 feet above the surface within a 7.5-mile radius of Beatrice Municipal Airport and within 3.1 miles each side of the 185° bearing from the Shaw NDB extending from the 7.5-mile radius of the airport to 7 miles south of the Shaw NDB.

\* \* \* \* \*

Issued in Kansas City, MO, on December 19, 2005.

Paul J. Sheridan,  
Area Director, Western Flight Services  
Operations.

[FR Doc. 06-80 Filed 1-4-06; 8:45 am]

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## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

#### 33 CFR Part 165

[COTP San Francisco Bay 05-011]

RIN 1625-AA00

#### Safety Zone; Mission Creek Waterway, China Basin, San Francisco Bay, CA

**AGENCY:** Coast Guard, DHS.

**ACTION:** Temporary final rule; request for comments.

**SUMMARY:** The Coast Guard has established a temporary safety zone in the navigable waters of the Mission Creek Waterway in China Basin surrounding the construction site of the Fourth Street Bridge, San Francisco, California. This temporary safety zone is necessary to protect persons and vessels from hazards associated with ongoing bridge construction activities scheduled to continue through September 1, 2006. The safety zone temporarily prohibits use of the Mission Creek Waterway surrounding the Fourth Street Bridge, unless authorized by the Captain of the Port, or his designated representative.

**DATES:** This rule is effective from 12:01 a.m. on January 1, 2006 to 11:59 p.m. on September 1, 2006. Comments and related material must reach the Coast Guard on or before March 1, 2006.

**ADDRESSES:** Comments and material received from the public, as well as documents indicated in this preamble as being available in the docket, are part of docket COTP 05-011 and are available for inspection or copying at the Waterways Safety Branch of Sector San Francisco, Coast Guard Island, Alameda, California, 94501, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Lieutenant Eric Ramos, U.S. Coast Guard Sector San Francisco, at (510) 437-2770.

#### SUPPLEMENTARY INFORMATION:

#### Regulatory Information

We did not publish a notice of proposed rulemaking (NPRM) for this regulation. Under 5 U.S.C. 553(b)(3)(B),



the Coast Guard finds that good cause exists for not publishing an NPRM. A delay in the effective date of this rule would expose mariners to undue hazards associated with bridge construction operations. For the same reason, under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Although the Coast Guard has good cause to issue this effective temporary rule without first publishing a proposed rule, you are invited to submit comments and related material regarding this rule on or before March 1, 2006. We may change the temporary final rule based on your comments.

#### Background and Purpose

The San Francisco Department of Public Works requested a temporary closure of the Mission Creek waterway for the purpose of performing significant work to the Fourth Street Bridge. The Fourth Street Bridge was erected across the Mission Creek Waterway at the China Basin in 1917, and was determined eligible for listing in the National Register of Historic Places in 1985 as part of the California Department of Transportation (Caltrans) Historic Bridge Inventory. Caltrans, Division of Structures, evaluated the Fourth Street Bridge and recommended that the bridge be brought up to current seismic safety standards. The three objectives of the rehabilitation project are to: (i) Seismically retrofit the structure while not significantly altering the historical appearance of the bridge; (ii) repair the damage to the concrete approaches and several steel and concrete members of the movable span, and (iii) reinstate light rail service across the bridge. The Federal Highway Administration, the State of California and the City of San Francisco are funding the Fourth Street Bridge Retrofit Project.

The first phase of this project included the removal of the lift span, and took place between May 1 and July 28, 2003. During that period, the channel was closed at the Fourth Street Bridge to boating traffic by a temporary final rule that was published in the **Federal Register** on May 13, 2003 (68 FR 25500) and a subsequent change in effective period temporary final rule that was published on July 9, 2003 (68 FR 40772). Those two rules established a safety zone that extended 100 yards on either side of the Fourth Street Bridge. The second phase of the construction project included rebuilding the north and south approaches and the new counterweight and its enclosing pit; but did not require that the waterway be

closed to boating traffic. A temporary final rule was published in the **Federal Register** on the March 31, 2005 (70 FR 16413) which established a safety zone that extended 100 yards on either side of the Fourth Street Bridge during the final phase of construction. However, the final phase has been extended due to construction delays.

The safety zone established in this particular rule is for the final stages of construction, which includes replacing the lift span and aligning the bridge to accept the light rail track system. Due to unforeseen conditions which have delayed the complicated installation of the bridge counterweights, mechanical and electrical systems, miscellaneous connections and adjustments, and the completion of the final balancing and alignment of the bridge to accept the light rail tracks system, the completion date has been extended to September 1, 2006. A safety zone of 100 yards on either side of the Fourth Street Bridge is needed during this period to protect boating traffic public from the dangers posed by the construction operations and to allow the construction operations to be completed.

There are two major environmental issues that affect the scheduling of construction in the channel, namely the annual pacific herring spawning season that runs from December 1 to March 31, and noise constraints for steelhead from December 1 to June 1. Any demolition, pile driving and excavation in the water during those time periods will be monitored and restricted for possible impacts on these species.

The Fourth Street Bridge Project is related to the larger Third Street Light Rail Project, and many public presentations on the project's components, channel closure schedules, impacts to surrounding uses and project duration have been made by the City and Port of San Francisco. The Third Street Light Rail Advisory Group was created as a forum to keep the public informed on the progress being made on the Third Street Light Rail Project. Also, this project has been presented at many Mission Bay Citizen Advisory Committee meetings. At these meetings, the public was notified of the project components, impacts and the need to temporarily close the waterway. Specific to the Fourth Street Bridge project, an Environmental Assessment, required by the Federal Highway Administration and Caltrans, (under the National Environmental Protection Act) was conducted by the City of San Francisco. A public hearing regarding the Environmental Assessment was held on January 17, 2002 at San Francisco Arts College, Timken Lecture Hall, 1111

8th Street in San Francisco California, and was well attended.

In addition, the City of San Francisco advised the Coast Guard Captain of the Port in January of 2003 that two channel closures would be necessary in order to accomplish the Fourth Street Bridge project. The Coast Guard met with various City and Port officials to ensure that there would be minimal impacts on area boaters and other involved entities.

#### Discussion of the Rule

The Coast Guard has established a safety zone that consists of a portion of the navigable waters located at the Fourth Street Bridge in the Mission Creek Waterway in China Basin, San Francisco, California. This safety zone is to affect a waterway closure during periods of reconstruction of the Fourth Street Bridge and would be effective 24 hours a day between January 1, 2006 and September 1, 2006.

This safety zone is necessary to protect persons and vessels from hazards, injury and damage associated with bridge construction activities. No vessel or person may come within 100 yards of either side of the bridge, or pass beneath the bridge during construction.

This safety zone encompasses the navigable waters, from the surface to the bottom, within two lines; one line drawn from a point on the north shore of Mission Creek extending southeast to a point on the opposite shore, 100 yards west of the bridge, and the other line drawn from a point on the north shore of Mission Creek extending southeast to a point on the opposite shore, 100 yards east of the bridge.

Vessels and people may be allowed to enter an established safety zone on a case-by-case basis with authorization from the Captain of the Port or a designated representative thereof. Section 165.23 of Title 33, Code of Federal Regulations, prohibits any unauthorized person or vessel from entering or remaining in this safety zone.

Coast Guard personnel will enforce this regulation and the Captain of the Port may be assisted by other Federal, State, or local agencies in the patrol and enforcement of the regulation.

#### Regulatory Evaluation

This rule is not a "significant regulatory action" under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order. It is not "significant" under the regulatory policies and procedures of

the Department of Homeland Security (DHS).

Although this rule restricts access to the waters encompassed by the safety zone, the effect of this rule is not significant because: (i) Owners of boats located within Mission Creek have been advised of the planned waterway closures at several Mission Bay Citizen Advisory Committee meetings, (ii) the San Francisco Department of Public Works and the Port of San Francisco have consulted with the Mission Creek Harbor Association to address the impacts of temporarily closing the channel to local boaters, (iii) the Department of Public works has made arrangements to accommodate the requests of owners that have asked to temporarily moor their house boats or pleasure boats at the head of the channel, (iv) the channel closure will not impact land access to the houseboats west of the bridge during the waterway closure and (v) the zone is not permanent.

The size of the zone is the minimum necessary to provide adequate protection for the boating public and an adequate distance to ensure vessel wakes to not interfere with construction operations. The entities most likely to be affected are pleasure craft engaged in recreational activities and sightseeing.

#### Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), we have considered whether this rule would have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

The Coast Guard 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. The effect of this rule on small entities is not expected to be significant because: (i) Owners of boats located within Mission Creek have been advised of the planned waterway closures at several Mission Bay Citizen Advisory Committee meetings, (ii) the San Francisco Department of Public Works and the Port of San Francisco have consulted with the Mission Creek Harbor Association to address the impacts of temporarily closing the channel to local boaters, (iii) the Department of Public works has made arrangements to accommodate the requests of owners that have asked to temporarily moor their house boats or

pleasure boats at the head of the channel, (iv) the channel closure will not impact land access to the houseboats west of the bridge during the waterway closure and (v) the zone is not permanent. However, a small number of sailboats that moor in the harbor may be impacted. Small entities and the maritime public will be advised of this safety zone via public notice to mariners.

#### Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121), we offered to assist small entities in understanding the rule so that they could better evaluate its effects on them and participate in the rulemaking process. If the rule will affect your small business, organization, or government jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed under **FOR FURTHER INFORMATION CONTACT** for assistance in understanding this rule.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal Regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-800-REG-FAIR (1-888-734-3247).

#### Collection of Information

This rule calls for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

#### Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

#### Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the

aggregate, or by the private sector of \$100,000,000 or more in any one year. Though this rule does not result in such expenditure, we do discuss the effects of this rule elsewhere in this preamble.

#### Taking of Private Property

This rule does not affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

#### Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

#### Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that might disproportionately affect children.

#### Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, 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.

#### Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a "significant energy action" under that order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

#### Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency



provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

#### Environment

We have analyzed this rule under Commandant Instruction M16475.1D, which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321–4370f), and have concluded that there are no factors in this case that would limit the use of a categorical exclusion under section 2.B.2 of the Instruction. Therefore, this rule is categorically excluded, under figure 2–1, paragraph (34)(g), of the Instruction, from further environmental documentation because it establishes a safety zone.

A draft "Environmental Analysis Check List" and a draft "Categorical Exclusion Determination" (CED) will be available in the docket where indicated under ADDRESSES.

#### List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

■ For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

#### PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

**Authority:** 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05–1(g), 6.04–1, 6.04–6, and 160.5; Pub. L. 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add § 165.T11–056 to read as follows:

#### § 165.T11–056 Safety Zone; Mission Creek Waterway, China Basin, San Francisco Bay, California.

(a) *Location.* One hundred yards to either water-side of the Fourth Street Bridge, encompassing the navigable waters, from the surface to the sea floor,

bounded by two lines; one line drawn from a point on the north shore of Mission Creek [37°46'29" N, 122°23'36" W] extending southeast to a point on the opposite shore [37°46'28" N, 122°23'34" W], and the other line drawn from a point on the north shore of Mission Creek [37°46'34" N, 122°23'30" W] extending southeast to a point on the opposite shore [37°46'33" N, 122°23'28" W] [Datum: NAD 83].

(b) *Regulations.* In accordance with the general regulations in § 165.23, entry into, transit through, or anchoring within this zone by all vessels is prohibited, unless specifically authorized by the Captain of the Port San Francisco, or his designated representative.

(c) *Effective period.* The safety zone will be in effect from 12:01 a.m. on January 1, 2006, to 11:59 p.m. on September 1, 2006. If the need for this safety zone ends before the scheduled termination time, the Captain of the Port will cease enforcement of the safety zone and will announce that fact via Broadcast Notice to Mariners.

(d) *Enforcement.* The Captain of the Port will enforce this zone and may enlist the aid and cooperation of any Federal, State, county, or municipal agency to assist in the enforcement of the regulation. All persons and vessels shall comply with the instructions of the Coast Guard Captain of the Port, or the designated on-scene patrol personnel. Patrol personnel comprise commissioned, warrant, and petty officers of the Coast Guard onboard Coast Guard, Coast Guard Auxiliary, federal, state, and local law enforcement vessels. Upon being hailed by U.S. Coast Guard patrol personnel by siren, radio, flashing light, or other means, the operator of a vessel shall proceed as directed.

Dated: December 21, 2005.

**William J. Uberti,**

*Captain, U.S. Coast Guard, Captain of the Port, San Francisco, California.*

[FR Doc. 06–83 Filed 1–4–06; 8:45 am]

**BILLING CODE 4910–15–P**

#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Parts 52 and 81

[EPA–R05–OAR–2005–IN–0010; FRL–8019–5]

#### Determination of Attainment, Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Indiana; Redesignation of the Vigo County Nonattainment Area to Attainment of the 8-Hour Ozone Standard

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is determining that the Vigo County 8-hour ozone nonattainment area has attained the 8-hour ozone National Ambient Air Quality Standard (NAAQS). EPA is approving a request from the State of Indiana, submitted on July 5, 2005 and supplemented on October 20, 2005 and November 4, 2005, to redesignate Vigo County from nonattainment to attainment for the 8-hour ozone NAAQS. EPA's approval of the redesignation request is based on the determination that Vigo County and the State of Indiana have met the criteria for redesignation to attainment set forth in the Clean Air Act (CAA), including the determination that Vigo County has attained the 8-hour ozone standard. In conjunction with this approval, EPA is approving the State's plan for maintaining the 8-hour ozone NAAQS in Vigo County through 2015 as a revision to the Indiana State Implementation Plan (SIP). EPA also finds as adequate and approves the 2015 Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) Motor Vehicle Emission Budgets (MVEBs) for this area. **DATES:** This rule is effective on February 6, 2006.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA–R05–OAR–2005–IN–0010. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, i.e., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation

Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. We recommend that you telephone Steven Rosenthal, Environmental Engineer, at (312) 886-6052 before visiting the Region 5 office.

**FOR FURTHER INFORMATION CONTACT:** Steven Rosenthal, Environmental Engineer, Criteria Pollutant Section, Air Programs Branch (AR-18), U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6052, [rosenthal.steven@epa.gov](mailto:rosenthal.steven@epa.gov).

**SUPPLEMENTARY INFORMATION:** In the following, whenever "we," "us," or "our" are used, we mean the United States Environmental Protection Agency.

#### Table of Contents

- I. What Is the Background for This Rule?
- II. What Comments Did We Receive on the Proposed Action?
- III. What Are Our Final Actions?
- IV. Statutory and Executive Order Review

#### I. What Is the Background for This Rule?

EPA has determined that ground-level ozone is detrimental to human health. On July 18, 1997, the EPA promulgated an 8-hour ozone NAAQS (62 FR 38856) of 0.08 parts per million parts of air (0.08 ppm). This standard is violated in an area when any ozone monitor in the area records an average of the annual fourth-highest daily maximum 8-hour ozone concentrations equaling or exceeding 0.085 ppm over a three-year period. Ground-level ozone is not emitted directly by sources. Rather, emitted VOC and NO<sub>x</sub> react in the presence of sunlight to form ground-level ozone along with other secondary compounds. VOC and NO<sub>x</sub> are referred to as "ozone precursors."

In accordance with section 107(d) of the CAA as amended in 1977, EPA designated Vigo County as an ozone nonattainment area for the 8-hour ozone NAAQS based on ozone data collected in this area during the 2001-2003 period. The *Federal Register* notice making this designation was signed on April 15, 2004, and was published on April 30, 2004 (69 FR 23857).

The Clean Air Act contains two sets of provisions—subpart 1 and subpart 2—that address planning and emission control requirements for nonattainment areas (both subparts are found in title I, part D of the CAA). Subpart 1 contains general, less prescriptive requirements for nonattainment areas governed by any NAAQS, and applies to all

nonattainment areas. Subpart 2 contains more specific requirements for certain ozone nonattainment areas, and applies to ozone nonattainment areas classified under section 181 of the CAA.

In the April 30, 2004 ozone designation rulemaking, EPA divided 8-hour ozone nonattainment areas into the categories of subpart 1 nonattainment and subpart 2 nonattainment based on their 8-hour ozone design values (*i.e.*, the three-year average annual fourth-highest daily maximum 8-hour ozone concentrations at the worst-case ozone monitoring sites in the designated areas) and their 1-hour ozone design values (*i.e.*, the fourth-highest daily maximum 1-hour ozone concentrations over the three-year period at the worst-case monitoring sites in the designated areas).<sup>1</sup> 8-hour ozone nonattainment areas with 1-hour ozone design values equaling or exceeding 0.121 ppm were designated as classified nonattainment areas (as nonattainment areas required to meet the requirements of subpart 2 of the CAA). All other 8-hour nonattainment areas were designated as "basic" nonattainment areas subject only to the requirements of subpart 1 of the CAA.

In the April 30, 2004 designation rulemaking, Vigo County was designated as nonattainment for the 8-hour ozone standard, and was identified as a subpart 1 basic nonattainment area. This designation was based on ozone data collected in Vigo County from the period of 2001-2003.

On July 5, 2005, the State of Indiana requested redesignation of Vigo County to attainment of the 8-hour ozone NAAQS based on ozone data collected during the period of 2002-2004. This request was supplemented with submittals dated October 20, 2005 and November 4, 2005. This redesignation request also included a 10-year ozone maintenance plan for Vigo County and the VOC and NO<sub>x</sub> MVEBs for Vigo County are based on emission projections in the ozone maintenance plan.

On November 23, 2005, EPA published a proposed rule (70 FR 70751), proposing to: (1) Determine that Vigo County has attained the 8-hour ozone NAAQS and to approve Indiana's request to redesignate Vigo County to attainment of the 8-hour ozone NAAQS; (2) approve Indiana's ozone maintenance plan for Vigo County; and (3) approve the 2015 VOC and NO<sub>x</sub>

<sup>1</sup> The 1-hour ozone standard, 0.12 ppm, has been replaced by the 8-hour ozone standard, with the 1-hour ozone standard being revoked on June 15, 2005.

MVEBs for Vigo County and notify the public that these MVEBs are adequate for purposes of transportation conformity. This proposed rule established a 30-day public comment period.

#### II. What Comments Did We Receive on the Proposed Action?

EPA provided a 30-day review and comment period on the proposal published in the *Federal Register* on November 23, 2005 (70 FR 70751). We received no comments on our proposed rulemaking.

#### III. What Are Our Final Actions?

EPA is making a determination that Vigo County has attained the 8-hour ozone NAAQS, and EPA is approving the redesignation of Vigo County from nonattainment to attainment for the 8-hour ozone NAAQS. After evaluating Indiana's redesignation request, EPA has determined that it meets the redesignation criteria set forth in section 107(d)(3)(E) of the CAA. The final approval of this redesignation request changes the official designation for Vigo County from nonattainment to attainment for the 8-hour ozone standard.

EPA is also approving the maintenance plan SIP revision for Vigo County. Approval of the maintenance plan is based on Indiana's demonstration that the plan meets the requirements of section 175A of the CAA. Additionally, EPA is finding adequate and approving the 2015 MVEBs submitted by Indiana in conjunction with the redesignation request.

No comments were received on the proposed rule. Therefore, all proposed actions are being finalized here.

#### IV. Statutory and Executive Order Review

##### *Executive Order 12866: Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget.

##### *Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

Because it is not a "significant regulatory action" under Executive Order 12866 or a "significant energy action," this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply,

Distribution, or Use" (66 FR 28355, May 22, 2001).

#### *Regulatory Flexibility Act*

This action merely approves state law as meeting federal requirements and imposes no additional requirements beyond those imposed by state law. Redesignation of an area to attainment under section 107(d)(3)(E) of the Clean Air Act does not impose any new requirements on small entities. Redesignation is an action that affects the status of a geographical area and does not impose any new regulatory requirements on sources. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

#### *Unfunded Mandates Reform Act*

Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

#### *Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This rule also does not have tribal implications because it will not have a substantial direct effect on one or more Indian tribes, 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 by Executive Order 13175 (65 FR 67249, November 9, 2000).

#### *Executive Order 13132: Federalism*

This action also does not have Federalism implications because it does 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 (64 FR 43255, August 10, 1999). Redesignation is an action that merely affects the status of a geographical area, and does not impose any new requirements on sources, or allows a state to avoid adopting or implementing additional requirements, and does not alter the relationship or distribution of power and responsibilities established in the Clean Air Act.

#### *Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

This rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant.

#### *National Technology Transfer Advancement Act*

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Redesignation is an action that affects the status of a geographical area but does not impose any new requirements on sources. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply.

#### *Environmental Justice*

Executive Order 12898 establishes a Federal policy for incorporating environmental justice into Federal agency actions by directing agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. As explained elsewhere in this document (see responses to Comments 5 and 9), today's action is designed to prevent violations of the health-based national ambient air quality standard. It does not result in the relaxation of control measures on existing sources and therefore will not cause emissions increases from those sources. Overall, as discussed in response to Comments 5 and 9, emissions in the area are projected to decline following the redesignation. Thus, today's action will not have disproportionately high and adverse effects on any communities in the area, including minority and low-income communities.

#### *Paperwork Reduction Act*

This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

#### *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).

Under Section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by March 6, 2006. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See Section 307(b)(2).)

#### **List of Subjects**

##### *40 CFR Part 52*

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

##### *40 CFR Part 81*

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: December 27, 2005.

**Bharat Mathur,**

*Acting Regional Administrator, Region 5.*

■ Parts 52 and 81, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

#### **PART 52—[AMENDED]**

■ 1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

**Subpart P—Indiana**

■ 2. Section 52.777 is amended by adding paragraph (dd) to read as follows:

**§ 52.777 Control strategy: Photochemical oxidants (hydrocarbons).**

\* \* \* \* \*

(dd) Approval—On July 5, 2005, Indiana submitted a request to redesignate Vigo County to attainment of the 8-hour ozone National Ambient Air Quality Standard. This request was supplemented with submittals dated

October 20, 2005 and November 4, 2005. As part of the redesignation request, the State submitted a maintenance plan as required by section 175A of the Clean Air Act. Elements of the section 175 maintenance plan include a contingency plan and an obligation to submit a subsequent maintenance plan revision in 8 years as required by the Clean Air Act. Also included were motor vehicle emission budgets for use to determine transportation conformity in Vigo County. The 2015 motor vehicle emission budgets are 2.84 tons per day for VOC and 3.67 tons per day for NO<sub>x</sub>.

**PART 81—[AMENDED]**

■ 1. The authority citation for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 2. Section 81.315 is amended by revising the entry for Terre Haute, IN: Vigo County in the table entitled “Indiana Ozone (8–Hour Standard)” to read as follows:

**§ 81.315 Indiana.**

\* \* \* \* \*

**INDIANA OZONE (8–HOUR STANDARD)**

Designated area	Designation <sup>a</sup>		Classification	
	Date <sup>1</sup>	Type	Date <sup>1</sup>	Type
Terre Haute, IN: Vigo County	2/06/06	Attainment		

<sup>a</sup> Includes Indian Country located in each county or area, except as otherwise specified.

<sup>1</sup> This date is June 15, 2004, unless otherwise noted.

## Proposed Rules

Federal Register

Vol. 71, No. 3

Thursday, January 5, 2006

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.

### DEPARTMENT OF AGRICULTURE

#### Agricultural Marketing Service

7 CFR Parts 1000, 1001, 1005, 1006, 1007, 1030, 1032, 1033, 1124, 1126, and 1131

[Docket No. AO-14-A74, et al.; DA-06-01]

#### Milk in the Northeast and Other Marketing Areas; Notice of Hearing on Proposed Amendments to Tentative Marketing Agreements and Orders

7 CFR part	Marketing area	AO Nos.
1001	Northeast .....	AO-14-A74.
1005	Appalachian .....	AO-388-A18.
1006	Florida .....	AO-356-A39.
1007	Southeast .....	AO-366-A47.
1030	Upper Midwest .....	AO-361-A40.
1032	Central .....	AO-313-A49.
1033	Midwest .....	AO-166-A73.
1124	Pacific Northwest .....	AO-368-A35.
1126	Southwest .....	AO-231-A68.
1131	Arizona-Las Vegas ..	AO-271-A40.

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Proposed rule; Notice of public hearing on proposed rulemaking.

**SUMMARY:** A national public hearing is being held to consider and take evidence on a proposal seeking to amend the Class III and Class IV milk price formula manufacturing allowances applicable to all Federal milk marketing orders. Evidence also will be taken at the hearing to determine whether emergency marketing conditions exist that would warrant omission of a recommended decision under the rules of practice and procedure (7 CFR 900.12(d)).

**DATES:** The hearing will convene at 8:30 a.m., Tuesday, January 24, 2006.

**ADDRESSES:** The hearing will be held at Sheraton Suites Old Town Alexandria, 801 North Saint Asaph Street, Alexandria, Virginia 22314. Telephone Number: (703) 836-4700.

**FOR FURTHER INFORMATION CONTACT:** Jack Rower, Marketing Specialist, USDA/

AMS/Dairy Programs, Order Formulation and Enforcement Branch, Stop 0231-Room 2971, 1400 Independence Avenue, SW., Washington, DC 20250-0231, (202) 720-2357, e-mail -address: jack.rover@usda.gov.

Persons requiring a sign language interpreter or other special accommodations should contact Richard F. Sarna, Assistant Market Administrator, at (703) 549-7000; e-mail address: rsarna@fedmilk1.com before the hearing begins.

**SUPPLEMENTARY INFORMATION:** This administrative action is governed by the provisions of sections 556 and 557 of Title 5 of the United States Code and, therefore, is excluded from the requirements of Executive Order 12866.

Notice is hereby given of a public hearing to be held at Sheraton Suites Old Town, Alexandria, VA, beginning at 8:30 a.m., on Tuesday, January 24, 2006, with respect to proposed amendments to the tentative marketing agreements and to the orders regulating the handling of milk in the Northeast and other marketing areas.

The hearing is called pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), and the applicable rules of practice and procedure governing the formulation of marketing agreements and marketing orders (7 CFR part 900).

The purpose of the hearing is to receive evidence with respect to the economic and marketing conditions which relate to the proposed amendments, hereinafter set forth, and any appropriate modifications thereof, to the tentative marketing agreements and to the orders.

Evidence will be taken at the hearing to determine whether emergency marketing conditions exist that would warrant omission of a recommended decision under the rules of practice and procedure (7 CFR 900.12(d)) with respect to any proposed amendments.

Also, since the proponent of the proposed amendment has requested that the hearing be held on an expedited basis, under the rules of practice and procedure (7 CFR 900.4(a)), it is determined that less than 15 days notice is reasonable under the circumstances.

#### Initial Regulatory Flexibility Analysis

Actions under the Federal milk order program are subject to the Regulatory

Flexibility Act (5 U.S.C. 601 *et seq.*). This Act seeks to ensure that, within the statutory authority of a program, the regulatory and information collection requirements are tailored to the size and nature of small businesses. For the purpose of the Act, a dairy farm is a "small business" if it has an annual gross revenue of less than \$750,000, and a dairy products manufacturer is a "small business" if it has fewer than 500 employees (13 CFR 121.201). Most parties subject to a milk order are considered as a small business. Accordingly, interested parties are invited to present evidence on the probable regulatory and information collection impact of the hearing proposals on small businesses. Also, parties may suggest modifications of the proposals for tailoring their applicability to small businesses.

USDA has identified that during 2004 approximately 49,160 of the 52,425 dairy producers whose milk is pooled on Federal orders are small businesses. Small businesses represent about 94 percent of the dairy farmers who participate in the Federal milk order program.

On the processing side, during June 2005 there were approximately 350 fully regulated plants (of which 149 or 43 percent were small businesses) and 110 partially regulated plants (of which 50 or 45 percent were small businesses). In addition, there were 48 producer-handlers, of which 29 were considered small businesses for the purposes of this initial regulatory flexibility analysis, who submitted reports under the Federal milk order program during this period.

The fluid use of milk represented more than 43.8 percent of total Federal milk marketing order producer deliveries during January 2005. More than 234 million Americans reside in Federal milk marketing areas, representing about 80 percent of the total U.S. population.

In order to accomplish the goal of imposing no additional regulatory burdens on the industry, a review of the current reporting requirements was completed pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) In light of that review, it was determined that these proposed amendments would have little or no impact on reporting, record keeping, or other compliance requirements because



these requirements would remain identical to those currently in effect under the Federal order program. No new or additional reporting would be necessary.

This notice does not require additional information collection that requires clearance by the OMB beyond the currently approved information collection. Information currently collected through the use of OMB-approved forms and the primary sources of data used to complete the forms are routinely used in business transactions. The forms require only a minimal amount of information that can be provided without data processing equipment or trained statistical staff. Thus, the information collection burden is relatively small. Requiring the same reports from all handlers does not disadvantage any handler that is smaller than the industry average.

No other burdens are expected to fall upon the dairy industry as a result of overlapping Federal rules. This proposed rulemaking does not duplicate, overlap, or conflict with any existing Federal rules.

To ensure that small businesses are not unduly or disproportionately burdened based on these proposed amendments, consideration was given to mitigating any negative impacts. If these proposals are adopted, income will decline for all dairy farmers. However, possible changes to the Class III and Class IV price formulas (or concomitant manufacturing allowances) should not have any special impacts on small handler entities. All handlers manufacturing dairy products from milk classified as Class III or Class IV would remain subject to the same minimum

prices regardless of the size of their operations. Minimum pricing should not raise barriers regarding the ability of small handlers to compete in the marketplace. It is similarly expected that small producers would not experience any particular disadvantage compared to larger producers as a result of the proposed amendments.

Interested parties are invited to present evidence on the probable regulatory and information collection impact of the hearing proposals on small businesses. Also, such parties may suggest modifications of the proposal for tailoring its applicability to small businesses.

#### Preliminary Analysis

The Department has conducted a preliminary analysis in order to assist the industry in considering the effects of increasing manufacturing allowances, commonly referred to as "make allowances". While the proposal seeks to amend the product pricing formulas used to price Class III or Class IV milk pooled under Federal milk marketing orders, changes in these formulas also would affect the prices of Class I and Class II milk pooled on Federal milk marketing orders.

Current make allowances relied on to establish Class III and Class IV prices for all Federal orders are based on three sources: (1) *1998 Dairy Product Plant Costs*, USDA/Rural Business Cooperative Service (RBCS) Technical Assistance Project, (2) *Weighted Average Manufacturing Costs for Butter, Nonfat Powder, and Cheddar Cheese January 1997 to April 1999*, California Department of Food and Agriculture (CDFA), and (3) *Dry Whey Total Costs*

*of Manufacturing, 1999*, National Cheese Institute (NCI)-sponsored survey. The make allowances for cheese, butter, and nonfat dry milk are based on the data from the first two sources and have been in effect since January 2001. The dry whey make allowance is based on data from the third source and it has been in effect since April 2003.

The following preliminary analysis is quantitative and based on the changes in processing costs for butter, cheese, and nonfat dry milk reported by the CDFA for 1997-1999 and 2004. The analysis, which was conducted for illustrative purposes, includes an increase in the whey make allowance of 10 percent as CDFA did not begin surveying costs of manufacturing whey powder until 2003. California cheese-making costs over the same period increased by a much smaller amount.

#### Manufacturing Cost Data

Currently, the most comprehensive data available concerning dairy manufacturing costs are provided by CDFA's California Survey of Weighted Average Manufacturing Costs (CDFA survey, various issues). The updated RBCS manufacturing cost survey is not yet available. Current Federal order make allowances are partially based upon data provided in the CDFA survey released in February 2000 covering the period from January 1997 through April 1999 (CDFA 1997-1999 survey). The most recent CDFA Survey was released on November 18, 2005, and covers the 2004 period (CDFA 2004 survey). Table 1 illustrates the changes in manufacturing costs as reported in the CDFA 1997-1999 and 2004 surveys.

Table 1. California Department of Food and Agriculture Survey  
Weighted Average Manufacturing Costs for Butter, Nonfat Powder, and Cheese

Date of Release	Dates of Coverage	Cost Per Pound		
		Butter	Nonfat Powder	Cheese
February 2000	Jan. 1997 to April 1999	0.0957	0.1356	0.1693
November 2005	Jan. 2004 to Dec. 2004	0.1368	0.1571	0.1769
Cost Increase		0.0411	0.0215	0.0076

#### Economic Analysis Framework

The following estimated impacts of increasing make allowances were measured as changes from the 2004 USDA dairy baseline (*USDA Agricultural Baseline Projections to 2014, OCE-2005-1*; <http://www.usda.gov/agency/oce/waob/commodity-projections/proj.htm>). The analysis was accomplished using an econometric model of the dairy industry developed by Dairy Programs. The

USDA baseline and the model baseline assume: (1) The Milk Price Support Program will continue unchanged; (2) the Dairy Export Incentive Program will be utilized at the maximum extent allowed beginning in the 2005/06 fiscal year; and (3) the Federal Milk Marketing Order Program will continue unchanged.

During the last five years, milk marketings under the Federal order milk program have been about 68 percent of

total U.S. milk marketings. Marketings under the Federal milk order program have accounted for about 61 percent of all milk used for manufacturing. Given the prominence of Federal order marketings in the U.S. dairy manufacturing industry, prices paid for manufactured milk under Federal orders are consistent with the value of milk for manufacturing in the rest of the United States. Similarly, the fluid prices in non-Federal order markets reflect fluid

prices established as Federal order minimum Class I prices. Therefore, U.S. milk marketings in this analysis are estimated as a function of the U.S. all-milk price. For the USDA baseline period, the Federal order share of total U.S. milk marketings is estimated as a proportion from recent data.

The econometric model used in this preliminary analysis includes demands for fluid milk products and manufactured dairy products. The demand for fluid milk products and for manufactured dairy products are functions of price, per capita consumption, and population. Retail prices of fluid milk and Class II soft manufactured products are assumed to respond penny for penny to changes in the milk cost of these products. Wholesale and retail margins are assumed unchanged from the USDA baseline for all proposals analyzed. Wholesale prices for cheese, butter; nonfat dry milk, and dry whey reflect

supply and demand conditions for each of these products. The milk supply for manufacturing these hard products is the result of milk marketings minus the volumes demanded for Class I and Class II products. The remaining volume is allocated to Class III and Class IV according to returns to manufacturing in each class.

The model and Federal order price formulas use national manufactured dairy product prices to establish the Class prices. Class prices, quantities of milk marketed through the Federal order system, a blend price, and Federal order cash receipts are projected.

The quantity of milk supplied is a function of the all-milk price, feed prices, cow slaughter prices, and trend. The all-milk price, i.e., the average price paid for milk on an f.o.b. plants basis, is estimated as a function of the wholesale prices for dairy products and Federal order prices. The relationship implicitly reflects average

manufacturing costs, over-order payments for milk, and prices paid for milk outside of the Federal order system.

#### Make Allowance Scenarios

Three illustrative scenarios are presented that estimate the impact on producers, consumers, and processors. Each scenario includes make allowance increases of 36 percent for butter, 15 percent for nonfat dry milk, and 10 percent for dry whey. The cheese make allowance is increased successively in each scenario by 1 cent per pound (6 percent), 2.5 cents (15 percent), and 4 cents (24 percent). These successive cheese make allowance scenarios illustrate the interaction of the protein and butterfat prices and the effects on the Class III and Class IV prices. All three scenarios and the illustrative changes in make allowances beginning with fiscal year 2005/06 are detailed in Table 2.

**Table 2. Scenarios Used to Analyze Illustrative Make Allowances Changes (\$ per lb.)**

		Cheese	Butter	NDM	Whey
Baseline	Make Allowance	0.1650	0.1150	0.1400	0.1590
Scenario 1	Make Allowance	0.1750	0.1561	0.1615	0.1749
	Change	0.0100	0.0411	0.0215	0.0159
	Percentage change	6	36	15	10
Scenario 2	Make Allowance	0.1900	0.1561	0.1615	0.1749
	Change	0.0250	0.0411	0.0215	0.0159
	Percentage change	15	36	15	10
Scenario 3	Make Allowance	0.2050	0.1561	0.1615	0.1749
	Change	0.0400	0.0411	0.0215	0.0159
	Percentage change	24	36	15	10

#### Results

The results of the increased make allowances in the Class III and Class IV formulas are summarized using five-year, 2005/06 to 2009/10, average changes from the baseline. Results in the Federal order system are in the context of the larger U.S. market.

Increased make allowances generally result in reduced Class III and Class IV milk prices and pool revenues. Increased make allowances also have an impact on Class I and Class II prices. Class II prices at 3.5 percent butterfat decline in concert with changes in Class IV prices. The Class I price reduction depends upon the resulting higher of the reduced Class III or IV advanced values. The small increases in the quantity of fluid milk demanded are not sufficient to offset the effects of the

price decline, and a lower all-milk price and reduced milk marketings result. Reduced marketings result in slightly increased dairy product prices, tempering the all-milk price decline.

Across the three scenarios, all Federal order class and blend prices fall, the U.S. all-milk price falls, and dairy product prices increase. The interaction between the butterfat and the protein prices determines the relative effects on the Class III and Class IV prices. As the cheese make allowance increases from one scenario to the next, the protein price impact shifts from an increase to a decline while the butterfat price impact shifts from a decline to an increase.

These preliminary results generally can be divided into two periods, the first two years and the last three years

of the 5 year projection period, due to the lagged adjustments in the milk supply responses. Once producers respond to lower prices with less production, the effects on the all-milk price and the average Federal order blend price stabilize at levels less than initial changes from the USDA baseline. The differences are more notable for Scenarios 2 and 3, with the greater increases in the cheese make allowance.

#### Scenario 1

For Scenario 1, the butter make allowance is increased by \$0.0411 per pound (to \$0.1561), and the nonfat dry milk make allowance is increased by \$0.0215 per pound (to \$0.1615). These increases, which are for illustrative purposes, match the changes in

manufacturing costs from the CDFA 1997–1999 and 2004 surveys.

It is not feasible, for purposes of this analysis, to use the CDFA survey as a basis to consider changes to the make allowance for whey. The 1997–1999 CDFA survey did not include dry whey. The most recent CDFA survey shows the manufacturing cost for whey is \$0.2673 per pound. A make allowance of \$0.20 per pound is used by CDFA in the California Class 4b formula. The baseline average price for dry whey during the five-year projection period is \$0.1863 per pound.<sup>1</sup> While the Federal order formulation allows for a negative other solids price, it does not seem realistic to set up a scenario for which the other solids price is usually negative. For the purpose of our analysis, the whey make allowance for Scenario 1 is simply increased by 10 percent (\$0.0159) to \$0.1749 per pound.

The change in manufacturing costs for cheese reflected in the CDFA surveys released February 2000 to November 2005 was \$0.0076 per pound. Anecdotal evidence suggests that manufacturing costs for cheese on average throughout the United States may have increased by more than the CDFA survey value. To illustrate the effects of changing the cheese make allowance relative to the other make allowances, the cheese make allowance varies for each scenario. Scenario 1 increases the cheese make allowance by \$0.01 per pound to \$0.1750 (Table 3).

Under this scenario, protein prices increase while butterfat prices decline. Increases in make allowances result in declines in the Class prices and the all-milk price. The accompanying decrease in milk marketings causes wholesale dairy product prices to rise. However, the negative effect on the protein price of this relatively small change in the cheese make allowance is more than offset by the positive effect of the decline in the butterfat price. Thus, while the butterfat, other solids, and nonfat solids prices fall due to make allowances increases, the increase in the cheese make allowance is not sufficient to keep the protein price from rising.

#### Producers

The all-milk price at test falls by an average \$0.03 per cwt over the (5-year) 2005/06–2009/10 projection period. Producers respond by reducing milk marketings by an annual average 120 million pounds. Producer revenue falls by \$72 million on average per year.

<sup>1</sup> The whey price has increased significantly in recent months. Baseline projections for whey, developed in November 2004 appear to be lower than expected given current conditions.

The Federal order blend price for milk testing at 3.5 percent butterfat falls by \$0.05 per cwt averaged over the five-year period, and by \$0.03 per cwt over the last three years. Federal order cash receipts fall by a five-year average of \$77 million, and by an average \$53 million during the last three of the five years, as compared to a five-year baseline average of \$18.491 billion. The greatest average reduction is in Class IV receipts (\$28 million), and the smallest reduction is in Class I receipts (\$8 million).

#### Milk Manufacturers and Processors

Wholesale prices of manufactured products rise slightly as the milk supply is reduced. The protein price increases in each of the five years, by about \$0.046 per pound in the last two years. The butterfat price declines in all years, and by about \$0.012 per pound in the last three years.

The Class IV price at 3.5% butterfat falls by \$0.18 per cwt on average. Since Class IV advanced value is the mover for Class II, the Class II price at 3.5% butterfat falls by the same amount. The Class III price at 3.5% butterfat is reduced by \$0.02 per cwt, with the decreases in the butterfat and other solids prices largely offset by the protein price increases. The Class I price at 3.5% butterfat falls by \$0.03 per cwt. While the baseline indicates the Class IV advanced value as the mover in the 2005/06 fiscal year with the Class III advanced value as the mover in the other years, for Scenario 1 Class III becomes the mover throughout the projection period. Class uses on average rise for Classes I and II and fall for Classes III and IV.

Class I prices decline and use increases in the first two years. However, for the last three years, the Class III and Class I skim milk prices increase slightly, as does the Class I milk price at class butterfat test which is less than 3.5 percent. Thus, Class I use rises slightly in the first two years, and declines slightly in the last three.

The aggregate obligation of processors and manufacturers to the Federal order revenue pools fall by a 5-year average of \$77 million, with 30 percent of the savings to soft product manufacturers, 22 percent accruing to cheese manufacturers, and 36 percent accruing to butter and nonfat dry milk manufacturers.

#### Consumers

On average, the retail fluid milk price is virtually unchanged, falling by \$0.0017 per gallon, during the

projection period.<sup>2</sup> Increases in Federal order Class I use are projected in the first two years while small decreases are projected in the last three years, averaging an increase of 4 million pounds. Federal order Class II use increases slightly each year (less than one percent).

Consumers of manufactured dairy products face slightly higher average prices. Price increases are \$0.0181 per pound (1.2 percent) for cheese, \$0.0324 per pound (1.8 percent) for butter, \$0.0054 per pound (0.6 percent) for nonfat dry milk, and \$0.0005 per pound (0.3 percent) for dry whey. This is caused by a 5-year average U.S. decline of 181 million pounds of milk available for cheese, butter, and nonfat dry milk (0.17 percent decline).

#### Scenario 2

Scenario 2 has the same make allowances as Scenario 1, except for cheese which is increased to \$0.1900 per pound, \$0.0250 above the current level (Table 3). At these levels, the protein price change starts out negative, becoming positive in the last 3 years. Butterfat prices decline in all but one year.

#### Producers

The all-milk price at test falls by \$0.06 per cwt on average and \$0.03 per cwt for the last three years. Producers respond with a 5-year average decrease in milk marketings of 226 million pounds. Producer revenue falls by \$140 million on average per year.

The average Federal order blend price at 3.5 percent butterfat test falls by \$0.09 per cwt averaged over 5 years and by an average \$0.06 in the last 3 years. Federal order cash receipts fall by an average \$135 million and by an average \$101 million over the last 3 years, as compared to a baseline 5-year average of \$18.491 billion. The greatest 5-year average reductions are in Class III receipts at \$60 million followed by Class I receipts at \$38 million. The smallest reduction is in Class II receipts (\$13 million).

#### Milk Manufacturers and Processors

Wholesale prices of manufactured products rise as the milk supply is reduced. As expected, the increase in product prices are greater when compared to Scenario 1. The protein price falls in the first two years of the projection period but rises thereafter, reaching about \$0.018 per pound in the last two years. The projected butterfat

<sup>2</sup> Throughout this discussion, we make the simplifying assumption that changes in prices are passed on to consumers in constant margins.



price falls in all but one year, falling by about \$0.005 per pound in the last two years.

Class III is the Class I price mover for all projection years except 2005/06. On average, the Class I price (at 3.5 percent butterfat) falls by \$0.09 per cwt, the Class III price falls by \$0.10 per cwt, and the Class II and IV prices fall by \$0.11 per cwt. Class I and II uses rise each year in response to price declines. Class III and IV uses fall as available milk volume declines. The aggregate obligation of processors and manufacturers to Federal order pools falls by a 5-year average of \$135 million, with 44 percent savings accruing to cheese manufacturers and 28 percent accruing to fluid processors.

#### Consumers

There is little change in the price of fluid milk at retail, averaging a decrease of \$0.0076 per gallon for the five year projection period. Federal order Class I use increases a 5-year average of 17 million pounds per year as compared to a baseline average of 45.928 billion pounds. Federal order Class II use increases by 27 million pounds per year as compared to a baseline average of 15.675 billion pounds.

Consumers of hard manufactured dairy products face slightly higher average prices. Price increases are \$0.0245 per pound (1.6 percent) for cheese, \$0.0385 per pound (2.1 percent) for butter, \$0.0098 per pound (1.1 percent) for nonfat dry milk, and \$0.0006 per pound (0.3 percent) for dry whey. This is caused by a U.S. decline of 278 million pounds of milk available for cheese, butter, and nonfat dry milk (0.26 percent decline).

#### Scenario 3

Scenario 3 uses the same make allowances as the first two scenarios with the exception of cheese which is increased by \$0.0400 per pound above the baseline to a level of \$0.2050 (Table 3). At these levels, the protein price falls below baseline levels throughout the projection period while the butterfat price rises above baseline levels in all but the first year of the projection period.

#### Producers

The all-milk price at test falls by an average \$0.09 per cwt over 5 years, and by about \$0.05 per cwt for the last 3 years. Producers respond with a decrease in average milk marketings of 327 million pounds. Producer revenue falls by \$207 million on average per year.

The average Federal order blend price at 3.5 percent butterfat falls by \$0.13 per cwt averaged over 5 years and by an average \$0.09 per cwt in the last 3 years. Federal order cash receipts fall by an average \$191 million over 5 years, and by an average \$147 million over the last 3 years, as compared to a baseline 5-year average of \$18.491 billion. The greatest 5-year average reductions are in Class III receipts at \$103 million, followed by Class I receipts at \$65 million, and the smallest reduction is in Class II receipts (\$3 million).

#### Milk Manufacturers and Processors

Wholesale prices of manufactured products rise as the milk supply is reduced. As expected, the increase in product prices is greater than for either of the other two scenarios. The protein price falls in all years, averaging \$0.0336 per pound below baseline levels but the reduction is attenuated to \$0.0086 per pound by the last year. The butterfat price rises above baseline levels in all years except the first, averaging an increase of \$0.0039 per pound above baseline levels.

As with the baseline, the Class III price is the Class I price mover for all years except 2005/06. While Class I and III prices fall in all years, Class II and IV prices at 3.5 percent butterfat fall below baseline levels in the first 2 years and are virtually unchanged in the final 3 years. Class IV and Class II prices at class butterfat tests increase in the last 3 years of the period. Class II use rises in the first 2 years and declines slightly in the last 3 years with the slight increases in the Class II price at class butterfat test.

The aggregate obligation of processors and manufacturers to the Federal order revenue pools falls by a 5-year average of \$191 million, with 54 percent of the savings accruing to cheese

manufacturers and 34 percent accruing to fluid processors.

#### Consumers

As with the other scenarios, there is little change in retail fluid milk prices which fall \$0.0130 per gallon on average over the projection period. Class I use increases an average of 29 million pounds per year, compared to a baseline average of 45.928 billion pounds. Class II use increases by negligible amounts on average during the projection period.

Consumers of hard manufactured dairy products face slightly higher average prices. Price increases are \$0.0309 per pound (2.1 percent) for cheese, \$0.0444 per pound (2.5 percent) for butter, \$0.0142 per pound (1.6 percent) for nonfat dry milk, and \$0.0008 per pound (0.4 percent) for dry whey. This is caused by a U.S. decline of 370 million pounds of milk available for cheese, butter, and nonfat dry milk (0.35 percent decline).

#### Preliminary Conclusions

Increasing the make allowances will generally result in lower Federal order class and blend prices, lower all-milk prices, slightly higher manufactured dairy product prices, and slightly lower fluid milk prices. Federal order cash receipts and U.S. producer revenues decline slightly. Manufacturing plants have higher dairy product prices on the revenue side and lower Federal order class and all-milk prices on the cost side.

The scenarios also demonstrate that seemingly small changes in the relative values of the various make allowances can result in possibly unexpected changes in the relative values of the manufacturing class prices. This is caused in part by the interaction between the quantities of milk supplied and the demands for nonfat solids and butterfat in the various dairy products. Further, the inverse relationship between the butterfat price and protein price in the Federal order protein formula also contributes to these circumstances.

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Table 3. Summary of Differences from Baseline for Three Scenarios  
Six-year Averages, 2005/06 through 2009/10

	Units	Baseline	Differences from Baseline		
			Scenario 1	Scenario 2	Scenario 3
<b>Make Allowance</b>					
Cheese	\$/pound	0.1650	0.0100	0.0250	0.0400
Butter	\$/pound	0.1150	0.0411	0.0411	0.0411
NDM	\$/pound	0.1400	0.0215	0.0215	0.0215
Whey	\$/pound	0.1590	0.0159	0.0159	0.0159
<b>F.O. Minimum Prices, 3.5% BF</b>					
Class I	\$/cwt.	16.46	-0.03	-0.09	-0.14
Class II	\$/cwt.	13.98	-0.18	-0.11	-0.05
Class III	\$/cwt.	13.73	-0.02	-0.10	-0.18
Class IV	\$/cwt.	13.28	-0.18	-0.11	-0.05
Blend	\$/cwt.	14.76	-0.05	-0.09	-0.13
<b>Average Class Butterfat Test</b>					
Class I	% of milk	2.04	0.00	0.00	0.00
Class II	% of milk	8.29	0.00	0.00	0.00
Class III	% of milk	3.53	0.00	0.00	0.00
Class IV	% of milk	5.14	0.00	0.01	0.02
<b>F.O. Minimum Prices at Test</b>					
Class I	\$/cwt.	13.63	-0.02	-0.09	-0.15
Class II	\$/cwt.	23.32	-0.22	-0.12	-0.03
Class III	\$/cwt.	13.79	-0.02	-0.10	-0.18
Class IV	\$/cwt.	16.50	-0.20	-0.10	0.00
Blend	\$/cwt.	15.18	-0.06	-0.10	-0.13
<b>Product Prices</b>					
Cheese	\$/pound	1.4999	0.0181	0.0245	0.0309
Butter	\$/pound	1.7920	0.0324	0.0385	0.0444
NDM	\$/pound	0.8658	0.0054	0.0098	0.0142
Whey	\$/pound	0.1863	0.0005	0.0006	0.0008
Retail fluid milk <sup>1</sup>	\$/gallon		-0.0017	-0.0076	-0.0130
<b>Federal Order Component Prices</b>					
Protein	\$/pound	2.1824	0.0372	0.0018	-0.0336
Butterfat	\$/pound	2.0123	-0.0104	-0.0031	0.0039
Other solids	\$/pound	0.0281	-0.0159	-0.0157	-0.0156
Nonfat solids	\$/pound	0.7186	-0.0160	-0.0116	-0.0072
Class I skim price	\$/cwt.	9.66	0.00	-0.08	-0.16
Class II skim price	\$/cwt.	7.17	-0.14	-0.10	-0.06
Class III skim price	\$/cwt.	6.93	0.02	-0.09	-0.20
Class IV skim price	\$/cwt.	6.47	-0.14	-0.10	-0.06

Table 3 continued on next page.

Table 3 Contined. Summary of Differences from Baseline for Three Scenarios  
Six Year Averages 2005/06 through 2009/10

	Units	Baseline	Differences from Baseline		
			Scenario 1	Scenario 2	Scenario 3
<b>Federal Order Class Uses</b>					
Class I	mil. pounds	45,928	4	17	29
Class II	mil. pounds	15,675	48	27	7
Class III	mil. pounds	50,163	-57	-81	-105
Class IV	mil. pounds	9,954	-54	-89	-123
Total F.O. Marketings	mil. pounds	121,719	-58	-126	-192
<b>Federal Order Cash Receipts</b>					
Class I	mil. \$	6,261	-8	-38	-65
Class II	mil. \$	3,655	-23	-13	-3
Class III	mil. \$	6,936	-17	-60	-103
Class IV	mil. \$	1,639	-28	-25	-21
Total	mil. \$	18,491	-77	-135	-191
All Milk Price	\$/cwt.	15.19	-0.03	-0.06	-0.09
<b>U.S. Marketings</b>					
Class I	mil. pounds	55,738	5	21	35
Class II	mil. pounds	18,333	56	32	8
Class III	mil. pounds	91,371	-103	-148	-191
Class IV	mil. pounds	14,532	-78	-130	-179
Total	mil. pounds	179,973	-120	-226	-327
U.S. Producer Revenue	mil. \$	27,360	-72	-140	-207

<sup>1</sup> Retail fluid milk prices are not projected in the baseline. Projected impacts are calculated by multiplying the Class I price per pound at test by 8.62 pounds of milk per gallon.

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Parties interested in additional detail of these analyses can obtain them from the Appendix to this preliminary analysis located at <http://www.ams.usda.gov/dairy/hearings.htm>.

**Executive Order 12988, Civil Justice Reform**

The amendments to the rules proposed herein have been reviewed under Executive Order 12988, Civil Justice Reform. They are not intended to have a retroactive effect. If adopted, the proposed amendments would not preempt any state or local laws, regulations, or policies, unless they present an irreconcilable conflict with this rule.

The Agricultural Marketing Agreement Act provides that administrative proceedings must be exhausted before parties may file suit in court. Under section 8c(15)(A) of the Act (7 U.S.C. 608c(15)(A)), any handler subject to an order may request modification or exemption from such order by filing with the Department of Agriculture (Department) a petition

stating that the order, any provision of the order, or any obligation imposed in connection with the order is not in accordance with the law. A handler is afforded the opportunity for a hearing on the petition. After a hearing, the Department would rule on the petition. The Act provides that the district court of the United States in any district in which the handler is an inhabitant, or has its principal place of business, has jurisdiction in equity to review the Department's ruling on the petition, provided a bill in equity is filed not later than 20 days after the date of the entry of the ruling.

Interested parties who wish to introduce exhibits should provide the Presiding Officer at the hearing with (6) copies of such exhibits for the Official Record. Also, it would be helpful if additional copies are available for the use of other participants at the hearing.

**List of Subjects in 7 CFR Parts 1000, 1001, 1005, 1006, 1007, 1030, 1032, 1033, 1124, 1126, and 1131.**

Milk marketing orders.

The authority citation for 7 CFR Parts 1000, 1001, 1005, 1006, 1007, 1030, 1032, 1033, 1124, 1126, and 1131 continues to read as follows:

**Authority:** 7 U.S.C. 601-674.

The proposed amendments, as set forth below, have not received the approval of the Department.

**Proposed by Agri-Mark Dairy Cooperative***Proposal No. 1*

This proposal seeks to amend the manufacturing allowances for Class III and Class IV product formulas, as enumerated in § 1000.50 based on record evidence that may include the most current California State dairy products manufacturing cost survey and a recently updated survey of manufacturing costs conducted by the USDA Rural Business and Cooperatives Service (RBCS). Specifically, this proposal seeks to amend § 1000.50 milk price formulas by revising the existing manufacturing allowances for butter, nonfat dry milk, cheese, and whey powder based upon evidence obtained

from the hearing record. Amendments to these manufacturing allowances would directly affect the milk component values used in Federal order milk price formulas for all classes of milk.

**Proposed by Dairy Programs,  
Agricultural Marketing Service**

*Proposal No. 2*

For all Federal Milk Marketing Orders, make such changes as may be necessary to make the entire marketing agreements and the orders conform with any amendments thereto that may result from this hearing.

Copies of this notice of hearing and the orders may be procured from the Market Administrator of each of the aforesaid marketing areas, or from the Hearing Clerk, United States Department of Agriculture, STOP 9200—Room 1083, 1400 Independence Avenue, SW., Washington, DC 20250-9200, or may be inspected there.

Copies of the transcript of testimony taken at the hearing will not be available for distribution through the Hearing Clerk's Office. If you wish to purchase a copy, arrangements may be made with the reporter at the hearing.

From the time that a hearing notice is issued and until the issuance of a final decision in a proceeding, Department employees involved in the decision-making process are prohibited from discussing the merits of the hearing issues on an ex parte basis with any person having an interest in the proceeding. For this particular proceeding, the prohibition applies to employees in the following organizational units:

Office of the Secretary of Agriculture.

Office of the Administrator,  
Agricultural Marketing Service.

Office of the General Counsel.

Dairy Programs, Agricultural  
Marketing Service (Washington office)  
and the Offices of all Market  
Administrators.

Procedural matters are not subject to the above prohibition and may be discussed at any time.

Dated: December 30, 2005.

**Lloyd C. Day,**

*Administrator, Agricultural Marketing  
Service.*

[FR Doc. 05-24707 Filed 12-30-05; 4:31 pm]

**BILLING CODE 3410-02-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 71**

[Docket No. FAA-2005-23374; Airspace  
Docket No. 05-ACE-34]

**Proposed Establishment of Class E5  
Airspace; David City, NE**

**AGENCY:** Federal Aviation  
Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) by establishing a Class E airspace area extending upward from 700 feet above the surface at David City Municipal Airport, NE.

**DATES:** Comments for inclusion in the Rules Docket must be received on or before January 27, 2006.

**ADDRESSES:** Send comments on this proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590-0001. You must identify the docket number FAA-2005-23374/Airspace Docket No. 05-ACE-34, at the beginning of your comments. You may also submit comments on the Internet at <http://dms.dot.gov>. You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

**FOR FURTHER INFORMATION CONTACT:** Brenda Mumper, Air Traffic Division, Airspace Branch, ACE-520A, DOT Regional Headquarters Building, Federal Aviation Administration, 901 Locust, Kansas City, MO 64106; telephone: (816) 329-2524.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal.

Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. FAA-2005-23374/Airspace Docket No. 05-ACE-34." The postcard will be date/time stamped and returned to the commenter.

**Availability of NPRM's**

An electronic copy of this document may be downloaded through the Internet at <http://dms.dot.gov>. Recently published rulemaking documents can also be accessed through the FAA's Web page at <http://www.faa.gov> or the Superintendent of Documents' Web page at <http://www.access.gpo.gov/nara>.

Additionally, any person may obtain a copy of this notice by submitting a request to the Federal Aviation Administration (FAA), Office of Air Traffic Airspace Management, ATA-400, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-8783. Communications must identify both docket numbers for this notice. Persons interested in being placed on a mailing list for future NPRM's should contact the FAA's Office of Rulemaking, (202) 267-9677, to request a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

**The Proposal**

This notice proposes to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) by establishing a Class E airspace area extending upward from 700 feet above the surface at David City Municipal Airport, NE. The establishment of a Very High Frequency Omni-directional Range (VOR)/Distance Measuring Equipment (DME) Instrument Approach Procedure (IAP) to Runway (RWY) 32 and Area Navigation (RNAV) Global Positioning System (GPS) IAPs to RWYs 14 and 32 have made this action necessary. The intended effect of this proposal is to provide adequate controlled airspace for Instrument Flight Rules operations at David City Municipal Airport, NE. The area would be depicted on appropriate aeronautical charts.

Class E airspace areas extending upward from 700 feet or more above the surface of the earth are published in Paragraph 6005 of FAA Order 7400.9N, dated September 1, 2005, and effective September 16, 2005, which is incorporated by reference in 14 CFR

71.1. The Class E airspace designations listed in this document would be published subsequently in the Order.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation, as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

This proposed rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This proposed regulation is within the scope of that authority since it would contain aircraft executing instrument approach procedures to David City Municipal Airport.

#### List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

#### The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

#### **PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS**

1. The authority citation for part 71 continues to read as follows:

**Authority:** 49 U.S.C. 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

#### **§ 71.1 [Amended]**

2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9N, Airspace Designations and Reporting Points, dated September 1, 2005, and effective September 16, 2005, is amended as follows:

*Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.*

\* \* \* \* \*

#### **ACE NE E5 David City, NE**

David City Municipal Airport, NE  
(Lat 41°13'51"N., long. 97°07'23"W.)

That airspace extending upward from 700 feet above the surface within a 6.8-mile radius of David City Municipal Airport.

\* \* \* \* \*

Issued in Kansas City, MO, on December 19, 2005.

**Paul J. Sheridan,**

*Area Director, Western Flight Services Operations.*

[FR Doc. 06–81 Filed 1–4–06; 8:45 am]

**BILLING CODE 4910–13–M**

### **FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION**

#### **29 CFR Parts 2700, 2704, and 2705**

#### **Procedural Rules**

**AGENCY:** Federal Mine Safety and Health Review Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Federal Mine Safety and Health Review Commission (the "Commission") is an independent adjudicatory agency that provides trials and appellate review of cases arising under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801 et seq. (2000) (the "Mine Act"). Trials are held before the Commission's Administrative Law Judges and appellate review is provided by a five-member Review Commission appointed by the President and confirmed by the Senate. The Commission is proposing to revise its procedural rules, regulations implementing the Equal Access to Justice Act, and regulations implementing the Privacy Act in order to aid the efficient adjudication of proceedings at the Commission's trial and appellate levels and to ensure consistency with the statutes underlying those regulations.

**DATES:** Written and electronic comments must be submitted on or before March 6, 2006.

**ADDRESSES:** Written comments should be mailed to Thomas A. Stock, General Counsel, Office of the General Counsel, Federal Mine Safety and Health Review Commission, 601 New Jersey Avenue, NW., Suite 9500, Washington, DC 20001, or sent via facsimile to 202–434–9944. Persons mailing written comments shall provide an original and three copies of their comments. Electronic comments should state

"Comments on Notice of Proposed Rulemaking" in the subject line and be sent to [tstock@fmshrc.gov](mailto:tstock@fmshrc.gov).

#### **FOR FURTHER INFORMATION CONTACT:**

Thomas A. Stock, General Counsel, Office of the General Counsel, 601 New Jersey Avenue, NW., Suite 9500, Washington, DC 20001; telephone 202–434–9935; fax 202–434–9944.

#### **SUPPLEMENTARY INFORMATION:**

#### **I. Background**

In October 2004, the Commission published an Advance Notice of Proposed Rulemaking ("ANPRM") in which it sought suggestions for improving its procedural rules (29 CFR part 2700), Government in the Sunshine Act regulations (29 CFR part 2701), regulations implementing the Freedom of Information Act ("FOIA") (29 CFR part 2702), and regulations implementing the Equal Access to Justice Act ("EAJA") (29 CFR part 2704). See 69 FR 62632, Oct. 27, 2004. In the ANPRM, the Commission identified several procedural rules set forth in part 2700 that require further revision, clarification, or expansion. See *id.* at 62632–35. The Commission also stated that it would examine its procedures for processing requests for relief from final judgments. *Id.* at 62632. The Commission did not include in the ANPRM any specific proposed revisions to the Commission's regulations implementing the Government in the Sunshine Act (part 2701), the FOIA (part 2702), the EAJA (part 2704), or the Privacy Act (part 2705).

Although notice-and-comment rulemaking requirements under the Administrative Procedure Act ("APA") do not apply to rules of agency procedure (see 5 U.S.C. 553(b)(3)(A)), the Commission invited members of the interested public to submit comments until January 25, 2005. The Commission invited comments on the revisions described in the ANPRM and on any other revisions not in the ANPRM but which the interested public believed could lead to the more efficient adjudication of Commission proceedings under the Commission's procedural rules (part 2700). The Commission also invited comments on its regulations implementing the Government in the Sunshine Act (part 2701), FOIA (part 2702), and EAJA (part 2704). 69 FR at 62632.

The Commission received comments from the Secretary of Labor through the U.S. Department of Labor's Office of the Solicitor; the Pennsylvania Coal Association; the United Mine Workers of America; the National Stone, Sand & Gravel Association; and other



individual members of the mining community or bar who practice before the Commission. As discussed in the section-by-section analysis, some changes in this notice are proposed in response to the comments received. Other changes are proposed in response to further reflection by the Commission or in response to developments in Commission proceedings since publication of the ANPRM. For example, the Commission has determined that some changes may be necessary to its regulations implementing the Privacy Act (part 2705). Further consideration by the Commission has also revealed that further changes are unnecessary at the present time to various rules, including the Commission's regulations implementing the Government in the Sunshine Act (part 2701) and FOIA (part 2702). In addition, after examining its procedures for processing requests for relief from final judgment, the Commission has determined that such procedures could be made more efficient through informal means rather than through the rulemaking process. Such informal means include making available a summary of the Commission's procedural rules described in simple terms and placing on the Commission's Web site a page of frequently asked questions and answers regarding Commission procedure.

Although the proposed rules in this notice are procedural in nature and do not require notice and comment publication (*see* 5 U.S.C. 553(b)(3)(A)), the Commission is inviting and will consider public comment before adopting in final form any revisions to the existing rules. In addition, anyone interested in providing oral statements on the Commission's proposed rule revisions announced in this notice may submit a request for a public meeting. In the request for a public meeting, the party shall identify the individual or entity requesting the public meeting and the name of the individual who will present the oral statement at the public meeting, provide a summary of the content of the oral statement to be presented at the public meeting, indicate the amount of time needed to present the oral statement, and propose a geographic location for the meeting. If the Commission receives a request for a public meeting on this notice, the Commission may hold a public meeting at its headquarters at 601 New Jersey Avenue, NW., Suite 9500, Washington, DC, or at other locations depending upon the level of interest shown. If public meetings are scheduled, the Commission will issue a subsequent

notice to be published in the Federal Register no later than 30 days before the dates of such meetings announcing the dates and locations of such meetings and setting forth guidelines for the meetings.

All comments and requests for a public meeting shall be mailed to Thomas A. Stock, General Counsel, Office of the General Counsel, Federal Mine Safety and Health Review Commission, 601 New Jersey Avenue, NW., Suite 9500, Washington, DC 20001; sent via facsimile to 202-434-9944; or emailed to [tstock@fsmshrc.gov](mailto:tstock@fsmshrc.gov). It is requested that comments and requests be filed no later than March 6, 2006.

## II. Section-by-Section Analysis

Set forth below is an analysis of proposed changes to the Commission's rules, including any comments received.

### A. Part 2700—Procedural Rules

#### Subpart A—General Provisions

##### 29 CFR 2700.1

Proceedings before the Commission have sometimes revealed confusion regarding the relationship between the Commission and the Department of Labor and its Mine Safety and Health Administration ("MSHA"). In order to minimize such confusion, the Commission proposes amending paragraph (a) of Commission Procedural Rule 1 to add an explanation regarding the Commission's role and relationship to the Department of Labor. In addition, the Commission proposes adding to paragraph (a), for easy reference, pertinent information necessary for contacting the Commission or gaining access to Commission records.

##### 29 CFR 2700.5

*Privacy-related issues raised by pleadings and other documents in Mine Act cases.* With the advent of electronic filings and Internet access to judicial files, there has been increased sensitivity regarding personal information in files that are easily accessed by the public. Identity theft and other misuse of personal information are problems that have been exacerbated by the widespread availability of information over the Internet. Since publication of the ANPRM, the Commission has reviewed the rules of the courts and other agencies and proposes to add a new subsection to Commission Procedural Rule 5, formerly subsection 5(d), to prevent incorporation into the Commission's case files of certain kinds of information (social security numbers, bank account numbers, and drivers'

license numbers) and information related to certain individuals (e.g., minor children). It is generally anticipated that the role of the Commission's Judges in enforcing the rule will be limited because implementation of this rule will fall heavily on the parties in Mine Act proceedings in light of their interests in redacting personal information.

*Filing and service requirements.* Commission Procedural Rule 5(d) currently provides that a notice of contest of a citation or order; a petition for assessment of penalty; a complaint for compensation; a complaint of discharge, discrimination, or interference; an application for temporary reinstatement; and an application for temporary relief shall be filed by personal delivery or by registered or certified mail, return receipt requested. 29 CFR 2700.5(d). Commission Procedural Rule 7(c) also requires that such documents, in addition to a proposed penalty assessment, shall be served by personal delivery or by registered or certified mail, return receipt requested. 29 CFR 2700.7(c); *see also* 29 CFR 2700.45(a) (providing, in part, for service by certified mail of pleadings in a temporary reinstatement proceeding). Although not explicitly required by the Commission's procedural rules in all circumstances, the Commission, as a matter of practice, generally mails by certified mail, return receipt requested, Judges' decisions after hearing, default orders, and orders that require timely action by a party. *Cf.* 29 CFR 2700.66(a) (requiring show cause orders to be mailed by registered or certified mail, return receipt requested).

In addition, Commission Procedural Rule 5(d) currently provides that certain documents may be filed by facsimile transmission ("fax"), while Commission Procedural Rule 7(c) contains corresponding provisions governing service when filing is by fax. The documents which may be filed by fax are motions for extension of time (29 CFR 2700.9), petitions for Commission review of a Judge's temporary reinstatement decision (29 CFR 2700.45(f)), motions for expedition of proceedings (29 CFR 2700.52(a)), petitions for discretionary review ("PDRs") (29 CFR 2700.70(a)), motions to file a PDR in excess of the applicable page limit (29 CFR 2700.70(f)), and motions to file a brief in excess of the applicable page limit (29 CFR 2700.75(f)). Under Commission Procedural Rule 5(d), a Judge or the Review Commission may also order the filing via fax of other documents. In practice, the Commission accepts by fax

many documents that are not specified in current Commission Procedural Rule 5(d).

In the ANPRM, the Commission stated that it was reviewing whether sections 2700.5(d) and 2700.7(c) should permit parties to use other methods, such as commercial mail services, to file and serve the documents for which personal delivery or registered or certified mail are presently required. 69 FR at 62632. In addition, the Commission stated that it was considering whether notices designating a PDR as an opening brief should be added to the list of pleadings that may be filed by fax. *Id.*

The Secretary opposes changing the present rules on the use of registered or certified mail because she does not consider the rules to be burdensome and considers the availability of the return receipt desirable for proving that a document has been filed or served. Another commenter also states that the requirements for certified mail should not be changed, except that the Commission should codify its current practice of mailing documents by certified mail. Most commenters support changing the rule to allow the use of commercial mail services but further suggest that the Commission allow filing by fax to a greater degree than allowed under current rules. Those commenters state that the use of commercial mail services can provide reliable information about the date of filing or service and that most fax machines will also print a verification of transmission. One commenter explains that because some mines are located in remote locations, it may be difficult to satisfy the requirements for certified or registered mail in a timely manner.

The pleadings and other documents for which the current rules presently require personal delivery or certified or registered mail as the method for filing and service are generally those that initiate Commission proceedings. The purpose for requiring such methods of filing and service is to provide the party initiating the proceeding with proof that filing and service have taken place in the event a question later arises. The documents that may be filed by fax under current Commission Procedural Rule 5(d) are generally those requesting Commission action of a time-sensitive nature.

Whenever a party initiates a Commission proceeding, the party is assuming a certain degree of risk that it may not be successful in initiating the proceeding due to unexpected circumstances involving the document it is filing or serving once the document has left the party's control. It is in the

filing party's best interest to ensure against that risk by using a method of delivery that provides adequate proof of proper filing and service. While a signed receipt is reliable proof that filing and service were actually accomplished, the Commission believes that a waybill provided by a private carrier that contains tracking information or a fax machine transmission report may also provide sufficiently reliable information that proper filing and service have been accomplished.

Accordingly, the Commission proposes revising the filing and service requirements of current Commission Procedural Rules 5(d) and 7(c) in an effort to require a method of filing and service that would be convenient to most parties yet would provide reliable verification of the time of filing and service. The Commission proposes to redesignate current Commission Procedural Rule 5(d) as 5(e), and in redesignated Commission Procedural Rule 5(e), to allow the filing party to choose the manner for filing a document, unless a certain method is otherwise required by the Mine Act or the Commission's procedural rules. Under this proposed change, it would be incumbent upon parties to use a method of delivery that provides adequate proof of timely filing and service, particularly if a filing party is initiating a proceeding. It would be the responsibility of the filing or serving party to confirm receipt of the document filed or served.

The newly redesignated Commission Procedural Rule 5(e) would not include the specific description of documents which may be filed by fax. Rather than limiting fax filing to various types of documents, the proposed rule would impose a 15-page length limit on most documents that may be filed by fax. Documents filed pursuant to 30 CFR 2700.70 (petitions for discretionary review), 30 CFR 2700.45 (temporary reinstatement proceedings) or 30 CFR subpart F (applications for temporary relief) may be filed by fax and would not be subject to the 15-page limit. Under the proposed rule, a notice designating a PDR as an opening brief may be filed by fax as it certainly would be 15 pages or less. The effective date of filing depends upon the method of delivery chosen and is specified accordingly in new Commission Procedural Rule 5(e). The Commission also proposes deleting references to permissible fax filing presently found in other rules (*see* 29 CFR 2700.9(a), 2700.45(f), 2700.52(a), 2700.70(a), 2700.75(f)), so as to avoid the misperception that those are the only instances in which fax filing is

permitted. Proposed § 2700.7(c) sets forth service requirement revisions that conform with those set forth in proposed § 2700.5(e) related to filing requirements.

Finally, the Commission intends to continue its current practice of mailing by certified mail, return receipt requested: Judges' decisions (after hearing), default orders, and orders that require timely action by a party. The Commission has determined that further codification of that practice is not necessary at this time since such codification would not alter the Commission's practice or ultimately result in a benefit to parties. *See* 29 CFR 2700.66(a) (requiring an order to show cause to be mailed by registered or certified mail, return receipt requested).

*Number of file copies.* Commission Procedural Rule 5(e) currently sets forth the number of copies to be submitted in cases before a Judge and the Review Commission, requiring represented parties to file two copies per docket in cases before Judges and seven copies in cases before the Review Commission. 29 CFR 2700.5(e). The rule further requires that when filing by fax a party must file the proper number of copies with the Judge or Review Commission within 3 days of the facsimile transmission. *Id.*

In the ANPRM, the Commission stated that it was considering requiring fewer copies than are currently required by the rule. 69 FR at 62632. All commenters support reducing the number of copies that must be filed.

The Commission proposes redesignating current Commission Procedural Rule 5(e) as 5(f). In newly redesignated Commission Procedural Rule 5(f), the Commission would require that only those parties represented by a lawyer need file, unless otherwise ordered, the original document and one copy for each docket in cases before a Judge, and the original document and six copies in cases before the Review Commission. For parties not represented by a lawyer, filing the original document would be sufficient. Under the proposed rule, when filing is by fax, the original document must be filed with the Judge or Review Commission within 3 days of transmission, but no other copies need be filed. The Commission proposes making a conforming change to 29 CFR 2700.75(g), setting forth the number of copies of briefs to be filed.

*Form of pleadings.* Current Commission Procedural Rule 5(f) contains various format requirements for pleadings filed with the Commission, providing in part that "briefs" not meeting the requirements may be rejected. 29 CFR 2700.5(f). The

rule is intended to permit rejection of all pleadings not meeting the format requirements, rather than only briefs. The Commission proposes redesignating current Commission Procedural Rule 5(f) as 5(g). Newly redesignated Commission Procedural Rule 5(g) would provide that any pleading not meeting the format requirements would be subject to rejection. Current 29 CFR 2700.5(g) would be redesignated as 29 CFR 2700.5(i).

*Citations to Judges' decisions.* Commission Procedural Rule 72 currently provides that an unreviewed decision of a Judge is not a precedent binding upon the Commission. 29 CFR 2700.72. In the ANPRM, the Commission stated that it was considering adding the requirement that any citation in a pleading to an unreviewed decision of a Judge should be designated parenthetically as such. 69 FR at 62634. The Commission explained that such a revision would provide the reader with information regarding whether the citation is binding precedent on the proposition for which it is cited. *Id.*

The majority of commenters do not oppose the suggested citation change. However, a few commenters suggest that a system for designating cases should be published. One commenter suggests that a change is unnecessary because citation to a Judge's decision without subsequent Commission history is presumptively an unreviewed decision.

Presently, there is no requirement that citations to Commission cases in pleadings differentiate between Judge and Review Commission decisions, regardless of whether the former are reviewed or unreviewed. In an effort to maximize clarity and accuracy in citation format, the Commission proposes adding a requirement that citations to a Judge's decision include "(ALJ)" at the end of the citation. Because such a change would be general and apply to pleadings before the Judges and the Review Commission, the Commission would include the requirement in Commission Procedural Rule 5. The Commission proposes redesignating current Commission Procedural Rule 5(g) as 5(i) and including in new Rule 5(h) the requirement regarding citation to a Judge's decision. In addition, the Commission would further clarify that Judges' decisions are not binding precedent upon the Review Commission. The Commission believes that such a clarification is most appropriately included in 29 CFR 2700.69, which addresses Judges' decisions. The Commission proposes deleting the current provisions of 29

CFR 2700.72, and reserving Commission Procedural Rule 72 for future use.

#### 29 CFR 2700.8

Commission Procedural Rule 8 provides in part that the last day of a period computed shall be included unless that day is a Saturday, Sunday, or federal holiday, in which event the period runs until the next business day. 29 CFR 2700.8. The rule further provides that when a period of time prescribed in the rules is less than 7 days, intermediate Saturdays, Sundays, and federal holidays shall be excluded in the computation of time. *Id.* Commission Procedural Rule 8 also states that when the service of a document is by mail, 5 days shall be added to the time allowed by the rules for the filing of a response or other documents. *Id.*

In the ANPRM, the Commission stated that it was considering whether to more closely conform its time computation rule with federal procedural rules. 69 FR at 62633. It specified that the Commission was considering whether it should increase the period for which intervening Saturdays, Sundays, and federal holidays shall be excluded, and decrease the number of days added for filing a response if service is by mail. *Id.* The Commission further stated that it was considering clarifying changes to Commission Procedural Rule 8 that would dispel confusion regarding the circumstances and the types of mail and delivery that qualify for the additional days for filing when service is by mail. *Id.* Finally, the Commission stated that it was considering making explicit that the Review Commission may act on a PDR on the first business day following the 40th day after the Judge's decision, where the 40th day would otherwise fall on a weekend or federal holiday. *Id.*

Most commenters support expanding the period in which intervening weekends and holidays would not be counted, in conformance with federal procedural rules. The Secretary also agrees that such a period should be expanded, but further states that such an expanded time should not apply to the time periods set forth in 29 CFR 2700.45 pertaining to temporary reinstatement proceedings. In addition, the Secretary suggests that Commission Procedural Rule 8 should be revised to provide that the last day of a filing period should not be counted if the Commission's office is closed due to inclement weather or other conditions. Most commenters also support clarifying Commission Procedural Rule 8 to explain the circumstances in which 5 days are added to time periods when

service is by mail. Most commenters do not support reducing the 5-day period added on for filing when service is by mail. Most commenters support making explicit that the Commission may act on a PDR on the first business day following the 40th day after the Judge's decision, where the 40th day would otherwise fall on a weekend or Federal holiday.

As to the time period for which holidays and weekends are excluded in the computation of time, the Commission considers it appropriate to harmonize Commission Procedural Rule 8 with federal procedural rules in order to decrease confusion and to better afford parties ample time in which to prepare their pleadings. Federal procedural rules provide that when a period of time prescribed is less than 11 days, intermediate Saturdays, Sundays, and legal holidays are excluded in the computation. Fed. R. Civ. P. 6(a); Fed. R. App. P. 26(a)(2). The Commission would propose to revise Commission Procedural Rule 8 to expand the period in which intervening weekends and holidays are excluded from time computation from 7 to 11 days.

However, adopting the 11-day period set forth in federal procedural rules, without other Commission procedural rule changes, may have an unintended negative impact on the efficient adjudication of proceedings before the Review Commission and its Judges. Under Commission Procedural Rule 10(d), a party has 10 days to respond to a motion. 29 CFR 2700.10(d). Under proposed Commission Procedural Rule 8, weekends and holidays that occur within the 10-day response time of current Commission Procedural Rule 10(d) would not be counted, which could result in the return response period being unreasonably extended to nearly 3 weeks where parties are served by mail. In order to avoid this result, the Commission also proposes changing the period of time for responding to a motion set forth in 29 CFR 2700.10(d) from 10 days to 8 days. This proposed change would guarantee parties 8 business days to respond to a motion, which is the greatest number of business days provided by the current rules. Under current Commission Procedural Rules 8 and 10(d), intervening weekends and holidays are included in time computation, resulting in parties receiving a response time of 10 to 12 calendar days, or 5 to 8 business days.

The Commission agrees with the Secretary's comment that any proposed change to Commission Procedural Rule 8 providing for an expanded response time should not apply to the time periods set forth in 29 CFR 2700.45



pertaining to temporary reinstatement proceedings. Section 105(c)(2) of the Mine Act requires the Commission to consider applications for temporary reinstatement on an expedited basis. 30 U.S.C. 815(c)(2). Therefore, the Commission proposes that Commission Procedural Rule 45 be amended to specify time periods in "business" days when the time period prescribed for action is less than 7 days, and "calendar" days when the time period prescribed is 7 or more days under that rule. This proposed change would maintain the same time frames currently provided in Commission Procedural Rule 45.

The Commission also agrees with the Secretary's comment that Commission Procedural Rule 8 should be revised to recognize that the last day of a filing period should not be counted if the Commission's offices are closed due to inclement weather or other conditions. The Commission proposes revising Commission Procedural Rule 8 to include more general language stating that the last day of a prescribed period for action shall be the due date unless the Commission's offices are not open or the Commission is otherwise unable to accept filings. This proposed revision would apply to deadlines for both Commission and party action.

The Commission also agrees with commenters that the 5-day period that is added under Commission Procedural Rule 8 when service is by mail should not be reduced. Commenters have explained that for many operators in isolated areas, it would be unreasonable to expect delivery within a shorter period of time. In addition, there have been mail delays caused by security concerns and increased screening procedures. Nonetheless, the Commission proposes specifying that the 5 days added when service is by mail are 5 additional calendar days. The rule is presently silent as to whether the 5 days are calendar days or business days.

Furthermore, in order to better explain the circumstances in which the 5 additional days will be added, the Commission proposes inserting language to clarify that 5 calendar days will be added to the due date for a responding party's reply to a pleading which has been served by a method of delivery other than same-day service. This proposed change clarifies that the 5-day period is added to documents responding to a party's pleading, rather than to documents responding to orders from the Commission. In addition, the proposed change clarifies that the 5 days will be added when responding to a party's pleading that has been served

by any means other than same-day service. Service by courier or fax would result in same-day delivery so that the 5 days would not be added to the time for response to such pleadings. However, service by U.S. Postal Service first-class mail or any other mail service resulting in other than same-day delivery would result in the addition of 5 days to the response time.

The Commission has determined that, given these proposed changes, it need not further clarify that the Review Commission may act on a PDR on the first business day following the 40th day after the Judge's decision, where the 40th day would otherwise fall on a weekend or federal holiday. Rather, the proposed changes to Commission Procedural Rule 8 should sufficiently clarify that the Review Commission may act on the PDR until the end of the next day that the Commission's offices are open. Such proposed language would apply to other deadlines for Commission action as well. *See, e.g.,* 30 U.S.C. 823(d)(2)(B) (providing the period within which the Review Commission may direct sua sponte review).

The various provisions of proposed Commission Procedural Rule 8 may result in different determinations of due dates depending upon the order in which the provisions are applied. Therefore, the Commission proposes to state in the rule that its subsections apply in sequential order. That is, in computing time, a party must apply the subsections in order, beginning with subsection (a) and ending with subsection (c). The Commission also proposes including as a part of the rule two examples demonstrating how the provisions would apply sequentially.

#### 29 CFR 2700.9

Commission Procedural Rule 9 currently provides in part that the time for filing or serving "any document" may be extended for good cause. 29 CFR 2700.9(a). Experience has shown that a number of parties believe that they can seek an extension of time to file a petition for discretionary review. The Commission therefore proposes revising the rule to clarify that the rule does not apply to petitions for discretionary review filed pursuant to section 113(d)(2)(A)(i) of the Mine Act, 30 U.S.C. 823(d)(2)(A)(i), and 29 CFR 2700.70(a).

#### 29 CFR 2700.10(c)

Commission Procedural Rule 10(c) currently provides that prior to filing a "procedural motion," the moving party shall make reasonable efforts to confer with other parties and state in the

motion whether the other parties oppose the motion. 29 CFR 2700.10(c). In the ANPRM, the Commission stated that it was considering whether the phrase "procedural motion" should be changed to clarify that it refers to any non-dispositive motion. 69 FR at 62633.

Most commenters support clarifying that movants must confer with opposing parties on non-dispositive motions. The Secretary does not oppose the change, provided that it is intended to exclude summary decision motions from the rule.

The Commission considered changing Commission Procedural Rule 10(c) because the phrase "procedural motion" is broad and may create confusion regarding which documents constitute procedural motions. The Commission believes that the phrase "dispositive motion" may more accurately describe the type of motion about which parties need not confer. Consequently, in an effort to dispel confusion, the Commission proposes revising the rule to state that consultation with opposing parties is required for any motion other than a dispositive motion.

#### 29 CFR 2700.10(d)

As discussed in the section above regarding 29 CFR 2700.8, the Commission proposes decreasing the period of time for responding to a motion from 10 days to 8 days. Such a change is proposed in combination with the proposed changes to 29 CFR 2700.8. The Commission proposes revising Commission Procedural Rule 8 to expand the period in which intervening weekends and holidays are excluded from time computation from 7 to 11 days. If the Commission were to leave unchanged the time period for responding to a motion in current 29 CFR 2700.10(d), the response period could be unreasonably extended. The proposed change to Commission Procedural Rule 10(d) guarantees parties 8 business days to respond to a motion, which is the greatest number of business days provided by the current rules.

#### Subpart B—Contests of Citations and Orders; Subpart C—Contests of Proposed Penalties

#### 29 CFR 2700.25

Commission Procedural Rule 25 currently provides that the Secretary shall notify the operator or any other person against whom a penalty is proposed of the violation alleged, the amount of the proposed penalty assessment, and that such person shall have 30 days to notify the Secretary of any contest of the proposed penalty assessment. 29 CFR 2700.25.

The Commission received two comments suggesting that the Commission adopt a time limit after a citation or order is issued for the Secretary to issue a proposed penalty assessment for the violations involved. The commenters state that a time limit of 6 or 12 months would be appropriate and that such a time limit should establish a rebuttable presumption that the issuance of a proposed penalty beyond the specified time is unreasonable.

Section 105(a) of the Act requires the Secretary to issue a proposed penalty assessment to an operator "within a reasonable time" after the termination of the inspection or investigation that led to the issuance of the citation or order in question. 30 U.S.C. 815(a). Commission Procedural Rule 25 does not further define the period of "reasonable time" set forth in the statute. The Commission invites comment from members of the interested public regarding the imposition of a time limit on the issuance of a proposed penalty assessment and whether failing to issue a proposed penalty within the limit should establish a rebuttable presumption that the issuance of a proposed penalty beyond the specified time is unreasonable.

#### 29 CFR 2700.26

The Commission has dual filing requirements under subparts B and C that reflect the filing procedures set forth in sections 105(a) and (d) of the Mine Act, 30 U.S.C. 815(a) and (d). Subpart B sets forth the manner in which a party may contest a citation or order before the Secretary has proposed a civil penalty for the alleged violation described in the citation or order. Subpart C sets forth the manner in which a party may contest a civil penalty after a proposed penalty assessment has been issued. If a party chooses not to file a contest of a citation or order under subpart B, it may nonetheless contest the proposed penalty assessment under subpart C. In such circumstances, in addition to contesting the proposed penalty assessment, the party may challenge the fact of violation and any special findings alleged in the citation or order. See 29 CFR 2700.21. However, if a party files a contest of a citation or order under subpart B, it must also file additional pleadings under subpart C in order to challenge the proposed penalty assessment related to the citation or order.

In the ANPRM, the Commission stated that it was considering whether the filing requirements relating to

contesting citations, orders, and proposed penalties could be streamlined while remaining consistent with the procedures set forth in sections 105(a) and (d) of the Mine Act. 69 FR at 62633. It explained that the dual filing requirements under subparts B and C are inconsistent and can sometimes lead to confusion. *Id.* For instance, parties have failed to contest a proposed penalty assessment or to answer the Secretary's petition for assessment of penalty under subpart C based on the mistaken belief that they have been relieved of those obligations by having filed a notice of contest of a citation or order under subpart B. In such circumstances, a final order requiring the payment of the proposed penalty may have been entered against the party by default.

After publishing the ANPRM, the Commission considered streamlining the filing procedures by adding a provision stating that the timely filing of a notice of contest of a citation or order shall also be deemed the timely filing of a notice of contest of a proposed penalty assessment. The Commission discussed the provision with MSHA because such a provision would impact the manner in which MSHA processes notices of contests and issues proposed penalty assessments and related documents. During those discussions the Commission was informed that, due to administrative and technological problems, the proposed new rule would be extremely difficult for MSHA to implement and that the expense of implementing the rule might not be justified by the relatively low number of default cases that would be eliminated by the new rule's implementation.

The Commission has determined that it is inadvisable at this time to add a provision stating that the timely filing of a notice of contest of a citation or order shall also be deemed the timely filing of a notice of contest of a proposed penalty assessment. Rather, the Commission proposes adding a provision to Commission Procedural Rule 26 which would clarify that a party who wishes to contest a proposed penalty assessment must provide such notification regardless of whether that party has previously contested the underlying citation or order pursuant to 29 CFR 2700.20. The Commission also proposes explaining, in Commission Procedural Rule 28(b), that an answer to a petition for assessment of penalty must be filed regardless of whether the party has already filed a notice of contest of the citation, order, or proposed penalty assessment.

Rather than proposing further changes to its rules, the Commission intends to

employ a number of informal practices in an effort to reduce the number of cases resulting in default. For instance, the Commission intends to work with MSHA to clarify the instructions provided to parties for the filing of various documents, to distribute and make available to the interested public a document that summarizes the Commission's procedural rules in simple terms, and to place on its website a page of frequently asked questions and answers regarding Commission procedures.

#### 29 CFR 2700.28(b)

Commission Procedural Rule 44(a), which pertains to a petition for the assessment of a penalty in a discrimination proceeding arising under section 105(c) of the Mine Act, 30 U.S.C. 815(c), currently provides that "[t]he petition for assessment of penalty shall include a short and plain statement of supporting reasons based on the criteria for penalty assessment set forth in section 110(i) of the Act." 29 CFR 2700.44(a), *citing* 30 U.S.C. 820(i). Procedural Rule 28, which sets forth the procedure for the Secretary to file a petition for assessment of penalty when an operator has contested a proposed penalty in non-discrimination cases, does not include the "short and plain statement" requirement of Commission Procedural Rule 44(a). Rather, Commission Procedural Rule 28(b) provides merely that the petition for assessment of penalty shall state whether the citation or order has been contested, the docket number of any contest, and that the party against whom a penalty petition is filed has 30 days to answer the petition. 29 CFR 2700.28(b).

In the ANPRM, the Commission stated that it was considering whether the provisions of Commission Procedural Rules 44(a) and 28(b) should be made consistent by adding to Rule 28(b) the "short and plain statement" requirement of Rule 44(a) so as to provide notice to the party against whom the penalty is filed of the basis for the penalty. 69 FR at 62633.

Most of the comments received by the Commission support requiring the Secretary to provide a short and plain statement of supporting reasons for a penalty based on the section 110(i) criteria. The reasons given in support of amending Commission Procedural Rule 28 are that it would provide a better understanding of the basis for the Secretary's allegations, enable a more complete response to the petition, make Rule 28 consistent with Rule 44, and promote more expeditious disposition of the case. One commenter does not support making the change because it

perceives that such a change would likely result in the consumption of additional resources and lead to delays in the issuance of paperwork. The Secretary states that requiring a short and plain statement is unnecessary because the supporting reasons for the penalty are set forth in the proposed penalty assessment (referred to by MSHA as "Exhibit A"), which is attached to the petition for assessment of penalty.

The Secretary's regulations in part 100 describe three methods for calculating civil penalties: the regular assessment, the special assessment, and the single penalty assessment. See 30 CFR 100.3, 100.4, 100.5. For regular assessments, Exhibit A generally identifies in non-narrative form, among other things, the citation or order by number, whether the alleged violation is significant and substantial within the meaning of section 104(d)(1) of the Mine Act, 30 U.S.C. 814(d)(1), the date of issuance, the standard allegedly violated, and the points assigned to each of 10 factors listed, which fall under 5 of the section 110(i) penalty criteria. The Secretary adds a narrative describing the basis of the penalty to Exhibit A only when she assesses a special assessment. However, in a proceeding in which individual liability is sought under section 110(c) of the Mine Act, 30 U.S.C. 820(c), Exhibit A does not include a narrative or other document explaining the proposed assessment. See, e.g., *Wayne R. Steen*, 20 FMSHRC 381, 386 (Apr. 1998) (applying the section 110(i) criteria in a section 110(c) agent case). The Commission believes that inclusion of a narrative description for the bases of a penalty within a petition may better provide a party notice of the rationale behind the penalty amount. In addition, the Commission questions whether Exhibit A is an adequate explanation of the bases of a proposed assessment.

When the Secretary issues a single penalty assessment, there is no enumeration of the points attributed for each criterion in Exhibit A. The Commission recognizes that since single penalty assessments do not involve individualized application of section 110(i) criteria (see *Coal Employment Project v. Dole*, 889 F.2d 1127, 1134 (D.C. Cir. 1989)), a narrative description requirement may not apply to these penalties. The Commission invites comment from members of the interested public regarding whether, if a short and plain statement requirement is added to Rule 28(b), an exception to that requirement for single penalty assessments should be explicitly stated.

The Commission does not believe that requiring the inclusion of a short and plain statement in a petition for assessment of penalty for regular and special assessments will impose an onerous burden on the Secretary's resources. While section 110(i) does not require the Secretary to make findings on the six criteria, the Secretary generally bears the burden of presenting the evidence concerning section 110(i) penalty criteria in support of her proposed assessment in a civil penalty proceeding. *Hubb Corp.*, 22 FMSHRC 606, 613 (May 2000); see also *Sec'y of Labor on behalf of Hannah v. Consolidation Coal Co.*, 20 FMSHRC 1293, 1302 (Dec. 1998) (noting that the Secretary "must initially produce preliminary information that will assist the Judge in making findings concerning the statutory penalty criteria"). The Commission anticipates that providing the operator with notice of the bases of the Secretary's proposed penalty assessment and allowing the operator the opportunity to identify issues with respect to the proposed penalty would ultimately lead to a more efficient resolution of penalty cases.

Moreover, the revision would make the requirements for petitions for assessment of penalties in both discrimination and non-discrimination cases consistent under the Commission's procedural rules. The Secretary's own regulations in 30 CFR part 100 consistently require the consideration of the same six criteria when proposing penalties in discrimination and non-discrimination cases. See 30 CFR 100.1. Thus, the Commission proposes revising Commission Procedural Rule 28(b) to add the requirement that a petition for assessment of penalty shall include a short and plain statement of supporting reasons for the penalty based on the section 110(i) criteria.

Finally, as described in the section above regarding 29 CFR 2700.26, in an effort to decrease the number of cases resulting in default, the Commission proposes to add to Commission Procedural Rule 28(b) an explanation that an answer to a petition for assessment of penalty must be filed regardless of whether the party has already filed a notice of contest of the citation, order, or proposed penalty assessment.

#### *Subpart E—Complaints of Discharge, Discrimination or Interference*

29 CFR 2700.45

Judge's jurisdiction. Commission Procedural Rule 45 sets forth procedures governing the temporary reinstatement

of a miner alleging discrimination under section 105(c) of the Mine Act, 30 U.S.C. 815(c). Currently, as to a Judge's jurisdiction, Commission Procedural Rule 45 states only that a Judge shall dissolve an order of temporary reinstatement if the Secretary's investigation reveals that the provisions of section 105(c)(1) of the Mine Act have not been violated. 29 CFR 2700.45(g). The rule further provides that an order dissolving the order of reinstatement shall not bar the filing of an action by the miner in his own behalf under section 105(c)(3) of the Act, 30 U.S.C. 815(c)(3). *Id.*

In the ANPRM, the Commission stated that it was considering whether to revise Rule 45 to codify the Review Commission's holding in *Sec'y of Labor on behalf of York v. BR&D Enterprises, Inc.*, 23 FMSHRC 386, 388-89 (Apr. 2001), that a Commission Judge retains jurisdiction over a temporary reinstatement proceeding pending issuance of a final Commission order on the underlying complaint of discrimination. 69 FR at 62634. All commenters agreed with the suggested change.

In *BR&D Enterprises, Inc.*, the Review Commission noted that section 105(c)(2) of the Mine Act, 30 U.S.C. 815(c)(2), provides for the temporary reinstatement of a miner "pending final order on the complaint," and that Commission Procedural Rule 45(g), 29 CFR 2700.45(g), states that if the Secretary determines there was no section 105(c)(1) violation, the Judge "shall enter an order dissolving" the reinstatement order. 23 FMSHRC at 388-89. The Review Commission interpreted this language to mean that the Judge retains jurisdiction over the temporary reinstatement proceeding during the investigation and adjudication of the formal discrimination complaint. *Id.* at 389. Moreover, the Review Commission also noted that under Rule 45(f), its jurisdiction over a temporary reinstatement proceeding is very limited, and concluded that when the parties do not appeal the Judge's reinstatement order, the Judge retains sole jurisdiction. *Id.*

Thus, a temporary reinstatement order remains in effect until 40 days after the Judge issues a decision on the merits of the discrimination complaint if the decision is not appealed to the Review Commission. See 30 U.S.C. 823(d)(1). If either party to a discrimination proceeding appeals the Judge's decision in the discrimination proceeding to the Review Commission, the temporary reinstatement order remains in effect while the Review Commission considers

the Judge's decision, and until such time that the Review Commission's decision becomes final and non-appealable. See *Sec'y of Labor on behalf of Bernardyn v. Reading Anthracite Co.*, 21 FMSHRC 947, 949 (Sept. 1999) (construing sections 105(c)(2) and 113(d)(1) of the Mine Act, 30 U.S.C. 823(d)(1), as prohibiting a Judge from dissolving a temporary reinstatement order upon issuing a decision dismissing a discrimination complaint and holding that the temporary reinstatement order remains in effect while the Review Commission considers the Judge's decision).

Accordingly, the Commission proposes to revise Commission Procedural Rule 45(e) by inserting a statement explaining that the Judge's order temporarily reinstating a miner is not a final decision within the meaning of 29 CFR 2700.69 and that the Judge shall retain jurisdiction over a temporary reinstatement proceeding except during Review Commission or court review of the Judge's order of temporary reinstatement.

*Effect of section 105(c)(3) action on temporary reinstatement order.* The Secretary submitted a comment in which she suggests that Rule 45(g) be amended to provide that once temporary reinstatement is ordered, absent agreement of the parties, the order of temporary reinstatement shall remain in effect until there is a final decision on the merits of the miner's complaint of discrimination even when the Secretary determines that there was no violation of section 105(c) of the Mine Act. The Secretary explains that the current language of 29 CFR 2700.45(g) suggests that if, after temporary reinstatement has been ordered, the Secretary determines not to proceed on the complaint of discrimination under section 105(c)(2) of the Act, but the miner files a complaint of discrimination under section 105(c)(3), the order of reinstatement should be dissolved. The Secretary contends that such a result is at odds with the meaning of section 105(c)(2). The Secretary reads section 105(c)(2) to require that the temporary reinstatement order remain in effect until the underlying discrimination complaint is resolved regardless of whether the complaint of discrimination is litigated by the Secretary under section 105(c)(2) of the Act or whether it is litigated by the miner under section 105(c)(3) of the Act.

The Secretary raises the issue of whether a temporary reinstatement order remains in effect during a miner's pursuit of his or her discrimination complaint before the Commission under

section 105(c)(3). To date, the Review Commission has not decided this issue. The Commission believes that the issue of statutory interpretation raised by the Secretary's comment is more appropriately addressed in the context of litigation rather than rulemaking. Accordingly, the Commission declines proposing to revise Commission Procedural Rule 45(g) in the manner suggested by the Secretary at this time.

*Time computation.* As discussed in the section above regarding 29 CFR 2700.8, the Commission does not intend the proposed rule revisions regarding time computation to affect the filing and service requirements of temporary reinstatement proceedings currently set forth in 29 CFR 2700.45. Accordingly, the Commission proposes that Commission Procedural Rule 45 be amended to reflect time periods in "business" days when the time period described for action is less than 7 days, and "calendar" days when the time period prescribed is 7 or more days. This proposed change would maintain the time frames currently provided in 29 CFR 2700.45.

#### Subpart G—Hearings

##### Amendment of Pleadings

The Commission received two comments suggesting that the Commission adopt a rule limiting the amendment of pleadings by the Secretary. The Commission has determined that the comments raise an issue which falls within the sound discretion of the Commission's judges. See *Cyprus Empire Corp.*, 12 FMSHRC 911, 916 (May 1990) (setting forth guidance in the exercise of discretion regarding amendment of pleadings). Accordingly, the Commission has determined that the issue should be determined on a case-by-case basis and declines to propose adopting a rule regarding the amendment of pleadings.

29 CFR 2700.51 and 2700.54

Commission Procedural Rule 54 currently provides in part that written notice of the time, place, and nature of a hearing shall be given to all parties at least 20 days before the date set for hearing. 29 CFR 2700.54. In the ANPRM, the Commission stated that it was considering whether Rule 54 should be revised to require a Judge to consult with all parties before setting a date for hearing. 69 FR at 62634.

The comments received by the Commission favor imposing a requirement that a Judge confer with the parties before establishing a hearing date. The comments note that when hearing dates are set ex parte, one or

both parties must often move for a continuance to avoid schedule conflicts. The Secretary adds that the requirement to confer should be extended to the choice of a hearing site, while another commenter suggests at least 45 days' notice of a hearing should be required. Another commenter suggests that Judges should be required to hold the hearing without undue delay, and that a time frame within which the hearing must be held should be established.

The Commission believes that establishing a time within which hearings must be held is not necessary at this time. In practice, a hearing date is typically set within 45–90 days after the case has been assigned. Later dates may be established with the agreement of the parties. Under the current and proposed rules, any party would be free to request or move for an expedited hearing in appropriate cases, pursuant to 29 CFR 2700.52.

Many of the Commission's Judges confer with parties before setting a hearing in all cases, and others confer in certain types of cases, e.g., where discovery has been initiated and/or the case appears complex. Experience has revealed that requiring Judges to confer with parties prior to setting a hearing date may result in undue delay in situations in which it is difficult to contact a party or a party's representative. For instance, difficulties can sometimes arise in contacting pro se parties or operators of seasonal or intermittent mining operations during periods when those facilities are not in operation.

The Mine Act requires that hearings before the Commission's Judges be held pursuant to 5 U.S.C. 554 (the APA). 30 U.S.C. 815(c), (d). The APA requires that in "fixing the time and place for hearings, due regard shall be had for the convenience and necessity of the parties or their representatives." 5 U.S.C. 554(b).

Commission Procedural Rule 51 currently provides in part that a Judge shall give due regard to the convenience and necessity of parties or their representatives and witnesses in setting a hearing site. 29 CFR 2700.51. The Commission proposes that Rule 51 should be revised to explicitly require a Judge to consider the convenience of parties or their representatives and witnesses in setting the hearing date and site.

29 CFR 2700.56(d) and (e)

Commission Procedural Rule 56(d) sets forth a time for initiating discovery, providing in part that "[d]iscovery shall be initiated within 20 days after an answer to a notice of contest, an answer



to a petition for assessment of penalty, or an answer to a complaint under section[s] 105(c) or 111 of the Act has been filed." 29 CFR 2700.56(d), citing 30 U.S.C. 815(c) and 821. Commission Procedural Rule 56(e) sets forth a time for completing discovery, providing that "[d]iscovery shall be completed within 40 days after its initiation." 29 CFR 2700.56(e).

In the ANPRM, the Commission stated that it was considering whether there should be no specific time frame for initiating discovery, and whether 40 days is too short a period of time for the completion of discovery. 69 FR at 62634.

The comments received by the Commission favor eliminating the present rules' specific time periods for commencing and completing discovery, and suggest substituting language providing that discovery not cause undue delay and that it be completed 30 days in advance of a hearing. Several comments note that the present time frames are outmoded and, if enforced, would require initiation of potentially costly and burdensome discovery before settlement options could be explored. Several also note that a specific provision should be added allowing the Judge to permit discovery within the 30-day period prior to the hearing for good cause shown.

The Commission proposes amending Commission Procedural Rule 56 to permit discovery to begin with the filing of a responsive pleading and requiring that it be completed 20 days in advance of a scheduled hearing. The Commission believes that the 20-day period, combined with a general provision that discovery not unduly delay or otherwise impede disposition of the case, will assure that discovery be completed in time to allow the filing of comprehensive prehearing statements and full presentation of the case.

29 CFR 2700.61 and 2700.62

Commission Procedural Rule 61 currently provides that a "Judge shall not, except in extraordinary circumstances, disclose or order a person to disclose to an operator or his agent the name of an informant who is a miner." 29 CFR 2700.61. Commission Procedural Rule 62 currently states that a "Judge shall not, until 2 days before a hearing, disclose or order a person to disclose to an operator or his agent the name of a miner who is expected by the Judge to testify or whom a party expects to summon or call as a witness." 29 CFR 2700.62.

The Commission received two comments suggesting that the Commission should modify Rule 62 to

require disclosure of the names of miner witnesses, along with any documents containing statements by the miner witnesses, at the time of the filing of a prehearing statement or no later than 15 days before a scheduled hearing. The commenters suggest that the 2-day period precludes proper preparation for hearing. The commenters further state that the Commission should also modify Rule 61 to provide that the Secretary cannot rely upon evidence from miner informants without providing the names of these informants and the substance of their testimony to the operator 15 days before the hearing.

The Commission has concluded that extending the time period for identifying anticipated miner witnesses from 2 days to 15 days before the start of a hearing, as suggested, would unacceptably weaken the protection afforded to miners under Rules 61 and 62. In the majority of cases, an operator will be able to independently depose miners who might be witnesses well in advance of the trial and therefore will not be harmed by the 2-day limitation. In most instances, the universe of potential witnesses, i.e., those with knowledge of the facts of a violative condition or an accident, is generally limited, and the operator will know who has knowledge of the facts of the alleged violation. If the potential miner informant/witness is an employee, the operator will be able to easily contact the employee for purposes of arranging a deposition. Moreover, the identification of miner witnesses, who may also be informants, 15 days in advance of a hearing would not be necessary to ensure the operator a fair trial in circumstances in which a hearing is continued to a later date or eliminated altogether for unrelated reasons.

The Commission's Judges have indicated that they generally have not experienced problems applying Commission Procedural Rules 61 and 62 and have been able to balance the interests of all parties under the current rules. Because the 2-day period set forth in Rule 62 refers to 2 business days, under current Rule 8 and its proposed revisions, the operator also may use weekend days contiguous to the 2-day period for depositions of miner witnesses. In any event, should there be an occasion where the late identification of a miner witness or the late discovery of the scope of his testimony causes prejudice to the operator, the operator can request a continuance in order to have time to adequately prepare for the hearing. Accordingly, the Commission has determined that it is not appropriate

to propose revisions to Commission Procedural Rules 61 and 62 at this time. 29 CFR 2700.63(a)

Commission Procedural Rule 63(a) currently provides that "[r]elevant evidence, including hearsay evidence, that is not unduly repetitious or cumulative is admissible." 29 CFR 2700.63(a). The Commission received two comments suggesting that the Commission modify its rule to require that hearsay evidence be supported by some evidence of reliability in order to be admissible.

Under Commission precedent, hearsay evidence is admissible in proceedings before the Commission's Judges as long as the evidence is "material and relevant." *Kenny Richardson*, 3 FMSHRC 8, 12 n.7 (Jan. 1981), *aff'd*, 689 F.2d 632 (6th Cir. 1982), *cert. denied*, 461 U.S. 928 (1983). Hearsay evidence can constitute substantial evidence supporting a Judge's decision only if that evidence "is surrounded by adequate indicia of probativeness and trustworthiness." *Mid-Continent Res., Inc.*, 6 FMSHRC 1132, 1135-36 (May 1984) (citations omitted). The Commission has determined that its precedents sufficiently address the commenters' concerns, and that rulemaking on the issue is not warranted at this time.

29 CFR 2700.67

Commission Procedural Rule 67(a) currently provides that "[a]t any time after commencement of a proceeding and no later than 10 days before the date fixed for the hearing on the merits, a party may move the Judge to render summary decision disposing of all or part of the proceeding." 29 CFR 2700.67(a).

In the ANPRM, the Commission stated that it was considering whether the filing deadline for a summary decision motion should be changed from 10 days to 20 or 30 days before the hearing, allowing the Judge a greater period of time to rule on the motion. 69 FR at 62634.

Most of the comments received by the Commission support changing the time period for filing a motion for summary decision from 10 days to 20 days before the hearing date. The Secretary and another commenter favor increasing the time period to 30 days. That commenter further suggests adding a requirement that the Judge rule on the motion at least 10 days before the hearing.

An appropriate deadline for filing a motion for summary decision prior to a hearing must be considered in light of other rule provisions governing filing and time computation. Under the

present rules, which provide that filing is effective upon mailing (29 CFR 2700.5(d)), a party has 10 days to respond to a motion (29 CFR 2700.10(d)), and an additional 5 days is added to that time when the motion is served by mail (29 CFR 2700.8). Consequently, a party could file by mail a motion for summary decision 10 days prior to a hearing, and the opposition would not have to be filed by mail until 5 days after commencement of the hearing.

The Commission proposes amending Commission Procedural Rule 67(a) to ensure adequate time for a Judge to review the motion and the opposition, and to make an informed decision as to whether a hearing will be necessary. The Commission believes that a time period of 25 days should be sufficient, provided that proposed Commission Procedural Rule 67(a) also specifies that the filing of such motions and responses would be effective upon receipt. Additional language allowing motions and oppositions to be filed and served by fax is no longer required in light of the proposed amendments to Commission Procedural Rule 5 providing that most documents can be filed and served by facsimile. Pursuant to 29 CFR 2700.9, a party may request an extension of time if it is unable to meet the deadline for filing a motion for summary decision.

The Commission further finds unnecessary at this time a requirement that the motion be decided by a time certain. Under the proposed rule, the Judge may not have the opposition until approximately 10 days before the hearing. Such a time period should be sufficient to allow the Judge to make an informed determination of whether to cancel, postpone, or go forward with the hearing, without inconveniencing the parties. Requiring a decision on the motion 10 days prior to hearing, as a commenter suggested, would not in all instances allow the Judge sufficient time to prepare the decision.

#### 29 CFR 2700.69

Commission Procedural Rule 69(c) sets forth the procedure for the correction of clerical errors in a Judge's decision. 29 CFR 2700.69(c). It provides that, at any time before the Review Commission has directed review of a Judge's decision, a Judge may correct clerical errors on his/her own motion, or on the motion of a party. *Id.* After the Review Commission has directed review of the Judge's decision or after the Judge's decision has become the final order of the Commission, the Judge may correct clerical errors with the leave of the Review Commission. *Id.*

In the ANPRM (69 FR at 62634), the Commission stated that it was considering inserting a provision which would make explicit that clerical corrections made subsequent to the issuance of a Judge's decision do not toll the period for filing a PDR of the Judge's decision on the merits. *See Earl Begley*, 22 FMSHRC 943, 944 (Aug. 2000).

Most of the comments received by the Commission favor making the change described in the ANPRM. The Secretary, however, states that a Judge's authority to correct decisions should be "expanded" in the rule to include errors that result from oversight or omission, and that such a corrected decision be separately appealable.

The Commission believes that it is inadvisable to make the change suggested by the Secretary. Broadening a Judge's authority to alter or amend a decision to cover more substantive changes, like those addressed under Fed. R. Civ. P. 59(e) and 60(a), could create questions involving finality and appealability that could result in a delay in Commission proceedings. Accordingly, the Commission proposes to amend Commission Procedural Rule 69(c) to make explicit that clerical corrections made subsequent to the issuance of a Judge's decision do not toll the period for filing a PDR.

Finally, as described in the section-by-section analysis of 29 CFR 2700.5 and 2700.72, the Commission proposes adding Commission Procedural Rule 69(d) to clarify that Judges' decisions are not binding precedent upon the Commission.

#### Subpart H—Review by the Commission 29 CFR 2700.70(h)

Commission Procedural Rule 70(h) currently provides that a petition for discretionary review that is not granted within 40 days after the issuance of a Judge's decision is deemed denied. 29 CFR 2700.70(h).

In the ANPRM, the Commission stated that it was considering making explicit its present practice under the rule that the Review Commission may act on a PDR on the 1st business day following the 40th day after a Judge's decision, where the 40th day would otherwise fall on a weekend or federal holiday. 69 FR at 62634.

As discussed in the section above regarding 29 CFR 2700.8, the Commission has determined that it need not clarify in Commission Procedural Rule 70 that the Review Commission may act on a PDR on the next day that the Commission's offices are open if the Commission's offices are closed on the 40th day. The changes that the

Commission has proposed with respect to Commission Procedural Rule 8 sufficiently clarify the Review Commission's authority in this respect.

#### 29 CFR 2700.72

As noted above in the section-by-section analysis of 29 CFR 2700.5, the Commission proposes deleting the current provisions of 29 CFR 2700.72, and reserving Commission Procedural Rule 72 for future use. Presently, Commission Procedural Rule 72 provides that an unreviewed decision of a Judge is not a precedent binding upon the Commission. 29 CFR 2700.72. In the ANPRM, the Commission stated that it was considering adding the requirement that any citation to an unreviewed decision of a Judge should be designated parenthetically as such. 69 FR at 62634.

The Commission proposes including in Commission Procedural Rule 5 a requirement that citations to a Judge's decision shall include "(ALJ)" at the end of the citation. In addition, the Commission proposes adding to Commission Procedural Rule 69 a provision stating that all Judge's decisions are not binding precedent upon the Commission.

#### 29 CFR 2700.75

As noted above in the section-by-section analysis regarding 29 CFR 2700.5, the Commission is proposing to revise Commission Procedural Rule 5 to require that fewer copies be filed. The Commission proposes to make conforming changes to 29 CFR 2700.75(g) which require that each party shall file the original and six copies of its brief with the Review Commission, or if the party is not represented by a lawyer, it need file only the original document.

In addition, the Commission proposes adding a new paragraph (h) to Commission Procedural Rule 75 requiring a table of contents for opening and response briefs filed with the Review Commission. The Commission suggests that a table of contents in opening and response briefs would be helpful to the Review Commission and parties, particularly in lengthy briefs involving multiple issues. As provided in current Commission Procedural Rule 75(c), the table of contents would be excluded from the page limit allowed for such briefs. 29 CFR 2700.75(c).

#### 29 CFR 2700.76

Commission Procedural Rule 76 currently sets forth the procedure for interlocutory review by the Commission. 29 CFR 2700.76. The rule provides for the simultaneous filing of briefs within 20 days of the order

granting interlocutory review. 29 CFR 2700.76(c). While the rule specifies that the Review Commission's consideration is confined to the issues raised in the Judge's certification or to the issues raised in the petition for interlocutory review (29 CFR 2700.76(d)), there is no description of what constitutes the record on interlocutory review. In the ANPRM, the Commission stated that it was considering whether Commission Procedural Rule 76 should be revised to state what constitutes the record on interlocutory review. 69 FR at 62634.

A few commenters support amending the rule to clarify what constitutes the record on interlocutory review, while others state that such a change is unnecessary. The Secretary further suggests that Commission Procedural Rule 76 should be revised to provide for the filing of briefs seriatim, and that the party seeking review should be permitted to file a reply brief.

Since the ANPRM was published, the Commission has improved its internal processes to better provide the Review Commission with the record on interlocutory review in the event the parties do not supply the Commission with all the relevant record excerpts. Because the changes in the Commission's internal processes will not impose any additional or different requirements upon parties, the Commission has determined that it need not revise Commission Procedural Rule 76 to describe what constitutes the record on interlocutory review.

Furthermore, the Commission agrees with the Secretary that there may be occasions when it is useful for parties to file briefs seriatim or for the filing party to have the opportunity to file a reply brief. However, the Commission believes that the briefing schedule for interlocutory appeals is best determined on a case-by-case basis. Accordingly, the Commission proposes substituting for the rule's current briefing requirements, language stating that when the Commission grants interlocutory review, it will also issue an order addressing the sequence and timing of briefs, including any reply briefs.

#### 29 CFR 2700.78

Commission Procedural Rule 78(b) currently provides in part that, unless the Review Commission orders otherwise, the filing of a petition for reconsideration does not stay the effect of a Review Commission decision and does not affect the finality of a decision for purposes of review in the courts. 29 CFR 2700.78(b). In the ANPRM, the Commission stated that it was considering whether it should revise Rule 78 to state that the filing of a

petition for reconsideration tolls the time period for filing an appeal for judicial review until the Review Commission has issued an order disposing of the petition for reconsideration. 69 FR at 62634.

Some commenters do not support revising the rule, stating that judicial review would simply be delayed, given the unlikelihood that the Review Commission would grant a petition for reconsideration, or that the revision could encourage parties to file petitions for reconsideration in order to delay court review, with the result being an increase in the duration of Commission proceedings. Another commenter supports the revision on the ground that it may help avoid unnecessary court review and expedite final resolution. The Secretary supports the revision on the ground that it would make the Commission's rules consistent with the decisions of federal courts of appeal on the question.

The terms of Commission Procedural Rule 78(b) date from the Commission's inception and were carried over without change from the procedural rules promulgated by the Interior Department's Board of Mine Operations Appeals. See 43 CFR 4.604 (1977); 43 FR 10320, 10327, Mar. 10, 1978 (Interim Procedural Rules).

Courts have interpreted petition for reconsideration provisions to preclude court review while a petition for reconsideration before the agency is pending. See, e.g., *United Transportation Union v. ICC*, 871 F.2d 1114, 1116-18 (D.C. Cir. 1989) ("*UTU*"); *West Penn Power Co. v. EPA*, 860 F.2d 581, 585 (3d Cir. 1988). Courts have reasoned that court review should be so precluded in order to prevent the waste of judicial resources and consideration of questions that may be disposed of by the agency when acting upon a reconsideration request. See *UTU*, 871 F.2d at 1116-18 (discussing rationale of the different courts addressing the issue).

The Commission believes that it is appropriate to revise Commission Procedural Rule 78(b) to conform more closely with such precedent. The Commission considers it inadvisable, however, to insert a statement that filing a petition for reconsideration tolls the time period for filing an appeal for judicial review. Such an insertion may lead to the misperception that a Review Commission decision that is the subject of petition for reconsideration is non-final with respect to even those parties who did not petition for reconsideration. Courts have determined that a pending reconsideration request at the

administrative level does not make the underlying decision non-final for parties who do not seek administrative reconsideration. *ICG Concerned Workers Ass'n v. United States*, 888 F.2d 1455 (D.C. Cir. 1989). Consequently, the Commission proposes deleting the present language that the filing of a petition for reconsideration with the Review Commission shall not affect the finality of a decision or order for purposes of judicial review and otherwise leaving to the courts the determination of the extent to which court review will proceed while a petition for reconsideration is before the Review Commission.

#### Subpart I—Miscellaneous

#### 29 CFR 2700.80

Commission Procedural Rule 80(a) presently provides that "[i]ndividuals practicing before the Commission and Commission Judges shall conform to the standards of ethical conduct required of practitioners in the courts of the United States." 29 CFR 2700.80(a). In the ANPRM, the Commission stated that it was considering revising Rule 80(a) to clarify that certain ethical conduct is required of individuals practicing before the Review Commission or before its Judges. 69 FR at 62634. The Commission did not receive any objections to the suggested revision.

Commission Procedural Rule 80(a) can be literally read to cover: (a) individuals practicing before the Review Commission; and (b) Commission Judges. Rule 80, however, is intended to be directed only at individuals practicing before the Review Commission or practicing before Commission Judges. Rule 80(c)(1), in discussing the disciplinary referral that initiates the disciplinary proceeding for alleged violations of the standard of conduct described in Rule 80(a), mentions forwarding such a referral only against "an individual who is practicing or has practiced before the Commission." 29 CFR 2700.80(c)(1). Moreover, other Commission rules explicitly impose standards of conduct upon Judges. See 29 CFR 2700.81 (recusal and disqualification); 29 CFR 2700.82 (ex parte communications). Consequently, the Commission proposes revising Rule 80(a) to clarify that certain ethical conduct is required of individuals practicing before the Review Commission or before Commission Judges.

## B. Part 2704—Implementation of the Equal Access to Justice Act in Commission Proceedings

### *Interplay of Parts 2700 and 2704*

Experience under the agency's EAJA rules of procedure has highlighted procedural matters in Commission EAJA proceedings that are governed by the Commission's rules of procedure in 29 CFR part 2700. Issues including scope of review by the Review Commission once review has been granted (29 CFR 2700.70(g)); motion practice (29 CFR 2700.10); and standards of conduct (29 CFR 2700.80); for example, are not separately covered in the Commission's EAJA rules. These rules stand in contrast to other rules in part 2700 that clearly are applicable only to Mine Act proceedings, such as 29 CFR 2700.25 (proposed penalty assessments). Therefore, the Commission proposes to revise its EAJA rule at 29 CFR 2704.100 to clarify that its rules of procedure at part 2700 apply to EAJA proceedings where appropriate.

### *Eligibility for Fees*

In *Colorado Lava, Inc.*, 27 FMSHRC 186, 188-95 (Mar. 2005), the Review Commission ruled unanimously that only non-prevailing parties may be eligible for fees under the "excessive and unreasonable demand" prong of EAJA and the Commission's regulations implementing it. As currently written, the Commission's regulations are silent as to whether prevailing parties may obtain fees under this provision. The Commission proposes to clarify these rules and to revise 29 CFR 2704.100, 2704.104, 2704.105, and 2704.206 to make it clear, consistent with its decision in *Colorado Lava*, that only non-prevailing parties may be awarded fees under EAJA's "excessive and unreasonable demand" provision.

### *Aggregation of Assets and Employees of Prevailing Parties*

Commission EAJA Rule 104(b)(2) presently provides for the aggregation of net worth and employees of the affiliates of a prevailing party to determine eligibility for an EAJA award. 29 CFR 2704.104(b)(2). The Commission received one comment suggesting that the Commission rescind this rule because there was no statutory basis for this treatment of prevailing parties. The Commission's rule is consistent with the vast majority of federal agency regulations addressing this question. However, after consideration of the issue, the Commission has concluded that it will entertain further comments on whether it should repeal the rule. The Commission requests that, in

particular, commenters focus their attention on judicial and administrative developments since the Commission's last revision of its EAJA rules in 1998. (See *Tri-State Steel Construction Co. v. Herman*, 164 F.3d 973 (6th Cir. 1999), and 70 FR 22785, 22787, May 3, 2005).

### *Hourly Rate*

Commission EAJA Rule 106(b) currently provides that the award for the fee of an attorney or agent to those parties who are successful on EAJA claims may not exceed \$125 per hour, except as provided in 29 CFR 2704.107, 29 CFR 2704.106(b). The Commission received one comment recommending that the Commission amend the rule to provide for an automatic increase in the \$125 hourly rate. The Commission has considered the recommendation but determined no change is presently necessary because no party has sought an increase in the present rate for attorney's fees since the rule was revised in 1998. Further, the Commission notes that 29 CFR 2704.107(a) allows parties to petition the Review Commission or its Judges for a higher rate.

### *Standards for Awards*

Commission EAJA Rule 105(b) presently provides that a non-prevailing party may establish that the Secretary's demand is excessive when compared to the Commission's decision and that the Secretary may avoid an award by establishing that the demand is not unreasonable when compared to the decision. 29 CFR 2704.105(b). The Commission received a comment that Rule 105(b) improperly places the burden of proof on EAJA applicants to show that the Secretary's demand is both excessive and unreasonable. The Commission concluded that Commission EAJA Rules 105(b) and 203(a) require that the EAJA applicant "show" that the Secretary's demand is excessive, while the Secretary can only avoid an award by establishing that the demand is not unreasonable when compared to the Commission's decision. 29 CFR 2704.203(a). Contrary to the commenter's suggestion, the rule does not require the applicant to prove that the penalty is unreasonable. Further, experience under the rules has not indicated any change to the pleading requirements is necessary. See *L&T Fabrication & Constr., Inc.*, 22 FMSHRC 509, 514 (Apr. 2000).

### *Automatic Stay of Proceedings*

Commission EAJA Rule 206(b) currently provides that if review or reconsideration is sought or taken of a decision on the merits, EAJA

proceedings shall be stayed pending final disposition of the underlying case. 29 CFR 2704.206(b). The Secretary submitted a comment stating that generally she files a motion for stay in these circumstances, and that the stay is routinely granted. The Secretary suggests that the Commission revise Commission EAJA Rule 206(b) to provide that the stay of EAJA proceedings is automatic, which will make the filing of such motions unnecessary.

The Commission has carefully considered the Secretary's suggestion. The Commission believes that the issuance of an order in response to a motion creates certainty as to the procedural posture of a case. The absence of a stay order could lead to uncertainty among the parties, particularly those unfamiliar with the Commission's procedures. The advantage of certainty among the parties is not outweighed by the minimal hardship imposed on the Secretary when she is required to file a stay motion. The Commission consequently concludes that a stay in such circumstances should not be automatic and that Commission EAJA Rule 206(b) should not be revised in the manner suggested by the Secretary.

### *EAJA Application Deadline*

Commission EAJA Rule 206(a) requires that an application be filed no later than 30 days after the Commission's final disposition of the underlying proceeding (or 30 days after a final and nonappealable court judgment in a Commission case). 29 CFR 2704.206(a). Commission EAJA Rule 206(c) currently defines "final disposition" as the date on which a case on the merits becomes final pursuant to sections 105(d) and 113(d) of the Mine Act, 30 U.S.C. 815(d) and 823(d). 29 CFR 2704.206(c). As currently written, it is not clear whether this term means "final and not appealable."

Two circuit court cases that have addressed the question of EAJA application filing deadlines have ruled that an EAJA application is due 30 days following the expiration of the time for an appeal on the merits—that is, the time for appeal must lapse or the appeal be completed before the 30-day deadline begins to run. See *Scafar Contracting, Inc. v. Sec'y of Labor*, 325 F.3d 422 (3d Cir. 2003); *Adams v. SEC*, 287 F.3d 183 (D.C. Cir. 2002). The Commission proposes to amend the definition of "final disposition" in Commission EAJA Rule 206(c) to clarify that it means the date on which a decision or order on the merits becomes final and unappealable.



*Effect of Stay on Filing Answer*

Commission EAJA Rule 302(a), as currently worded, sets forth time frames for the filing of an answer in an EAJA proceeding without taking into account the possible existence of a stay. 29 CFR 2704.302(a). The Commission received a comment from the Secretary stating that the Commission should consider revising this rule to address the interplay of Commission EAJA Rule 206(b), 29 CFR 2704.206(b) (providing for a stay of EAJA proceedings under certain circumstances) and the 30-day requirement for answering the EAJA application. The Secretary suggests that the Commission should revise its rules to require that the Secretary file an answer within 30 days after service of an application unless the matter has been stayed under Rule 206(b), in which case the Secretary must file an answer within 30 days after the expiration of the stay. The Commission agrees with the Secretary that the interplay between Commission EAJA Rule 302(a) and the stay provisions in Rule 206(b) should be addressed. The Commission believes it appropriate to amend Rule 302(a), which provides guidance regarding the filing of an answer.

**C. Part 2705—Privacy Act Implementation***29 CFR 2705.1*

Privacy Act Rules and the Commission's Case Files Under the Mine Act

As part of the Commission's plenary review of its rules following publication of the ANPRM, the Commission has examined its practices under the Privacy Act of 1974, 5 U.S.C. 552a (2000), to determine whether any revisions to its rules were necessary. The Commission's statutory obligation to treat files that pertain to its personnel under the Privacy Act has long been recognized. In addition, there are circumstances arising under the Mine Act when a case adjudicatory file may bear the name of an individual. These situations include miner discrimination complaints under 30 U.S.C. 815(c); violations involving operators that do business as sole proprietorships; violations involving individual directors, owners, or officers under 30 U.S.C. 820(c); violations involving miners for carrying smoking materials under 30 U.S.C. 820(g); and persons charged with giving advance notice of mine inspections under 30 U.S.C. 820(e). While these files are retrievable by a "personal identifier," one of the criteria for coverage under the Privacy Act, it is not apparent that files generated in Mine Act enforcement

proceedings are "records" within the meaning of the Privacy Act. Accordingly, the Commission proposes to add a sentence to 29 CFR 2705.1 to clarify that the Commission's Privacy Act rules do not apply to its files generated under the Mine Act.

**Miscellaneous***Electronic Filing*

In the ANPRM, the Commission stated that it was considering the feasibility of electronic filing and may consider initiating a program that would permit the electronic filing of limited categories of documents in proceedings on a voluntary basis. 69 FR at 62634. Most commenters support the electronic filing of Commission documents.

The Commission will continue its consideration of the feasibility of electronic filing separately from the subject rulemaking in order to avoid any potential delay in the revision of the Commission's rules. If the Commission determines that electronic filing is feasible, the Commission will amend its rules as necessary.

**III. Matters of Regulatory Procedure**

The Commission has determined that these rules are not subject to the Office of Management and Budget ("OMB") review under Executive Order 12866, 58 FR 51735, Sept. 30, 1993.

The Commission has determined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) that these rules, if adopted, would not have a significant economic impact on a substantial number of small entities. Therefore, a Regulatory Flexibility Statement and Analysis has not been prepared.

The Commission has determined that the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) does not apply because these rules do not contain any information collection requirements that require the approval of the OMB.

**List of Subjects***29 CFR Part 2700*

Administrative practice and procedure, Lawyers, Penalties.

*29 CFR Part 2704*

Administrative practice and procedure, Equal access to justice, Claims.

*29 CFR Part 2705*

Privacy.

For the reasons stated in the preamble, it is proposed to amend 29 CFR parts 2700, 2704, and 2705 as follows:

**PART 2700—PROCEDURAL RULES\***

1. The authority citation for part 2700 continues to read as follows:

**Authority:** 30 U.S.C. 815, 820, and 823.

2. In § 2700.1, revise paragraphs (a) and (b) to read as follows:

**§ 2700.1 Scope; applicability of other rules; construction.**

(a) *Scope.* This part sets forth rules applicable to proceedings before the Federal Mine Safety and Health Review Commission ("the Commission") and its Administrative Law Judges. The Commission is an adjudicative agency that provides administrative trial and appellate review of legal disputes arising under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801 *et seq.* ("the Act"). The Commission is an independent agency, not a part of nor affiliated in any way with the U.S. Department of Labor or its Mine Safety and Health Administration ("MSHA"). The Commission's headquarters are at 601 New Jersey Avenue, NW., Suite 9500, Washington, DC 20001; its primary phone number is 202-434-9900; and the fax number of its Docket Office is 202-434-9954. The Commission maintains a Web site at <http://www.fmsrhrc.gov> where these rules, recent and many past decisions of the Commission and its Judges, and other information regarding the Commission, can be accessed.

(b) *Applicability of other rules.* On any procedural question not regulated by the Act, these Procedural Rules, or the Administrative Procedure Act (particularly 5 U.S.C. 554 and 556), the Commission and its Judges shall be guided so far as practicable by the Federal Rules of Civil Procedure and the Federal Rules of Appellate Procedure.

\* \* \* \* \*

3. In § 2700.5, redesignate paragraphs (d), (e), (f), and (g) as (e), (f), (g), and (i); revise newly redesignated paragraphs (e), (f), and (g); and add new paragraphs (d) and (h), to read as follows:

**§ 2700.5 General requirements for pleadings and other documents; status or informational requests.**

\* \* \* \* \*

(d) *Privacy considerations.* Persons submitting information to the Commission shall protect information that tends to identify certain individuals or tends to constitute an unwarranted intrusion of personal privacy in the following manner:

(1) All but the last four digits of social security numbers, financial account numbers, driver's license numbers, or other personal identifying numbers, shall be redacted or excluded;

(2) Minor children shall be identified only by initials;

(3) If dates of birth must be included, only the year shall be used;

(4) Parties shall exercise caution when filing medical records, medical treatment records, medical diagnosis records, employment history, and individual financial information, and shall redact or exclude certain materials unnecessary to a disposition of the case.

(e) *Manner and effective date of filing.* Unless otherwise provided for in the Act, these rules, or by order:

(1) Documents may be filed with a Judge or the Commission by any means of delivery a party chooses, including facsimile transmission. With the exception of documents filed pursuant to Rule 70 (Petitions for discretionary review), Rule 45 (Temporary reinstatement proceedings), or Subpart F (Applications for Temporary Relief), documents filed by facsimile transmission shall not exceed 15 pages, excluding the facsimile cover sheet. Parties filing by facsimile are also required to file the original document with the Judge or Commission within 3 days of the facsimile transmission.

(2) When filing is by personal delivery or facsimile, filing is effective upon successful receipt by the Commission. When filing is by mail, filing is effective upon mailing, except that the filing of a petition for discretionary review, a petition for review of a temporary reinstatement order, a motion for extension of time, a motion for summary decision, and a motion to exceed page limit is effective upon receipt. See §§ 2700.9(a), 2700.45(f), 2700.67(a), 2700.70(a), (f), and 2700.75(f).

(f) *Number of copies.* In cases before a Judge, unless otherwise ordered, the original document, along with one copy for each docket, shall be filed; in cases before the Commission, the original and six copies shall be filed; but if the filing party is not represented by a lawyer, the original shall be sufficient. When filing is by facsimile transmission, the original must be filed with the Judge or Commission within 3 days of the facsimile transmission, but no additional copies should be filed.

(g) *Form of pleadings.* All printed material shall appear in at least 12-point type on paper 8½ by 11 inches in size, with margins of at least 1 inch on all four sides. Text and footnotes shall appear in the same size type. Text shall be double spaced. Headings and footnotes may be single spaced. Quotations of 50 words or more may be single spaced and indented left and right. Excessive footnotes are prohibited. The failure to comply with the requirements of this paragraph or

the use of compacted or otherwise compressed printing features will be grounds for rejection of a pleading.

(h) *Citation to a decision of a Judge.* Each citation to a decision of a Judge shall include "(ALJ)" at the end of the citation.

\* \* \* \* \*  
4. In § 2700.7, revise paragraph (c) to read as follows:

**§ 2700.7 Service.**

\* \* \* \* \*  
(c) *Methods of service.* Unless otherwise provided for in the Act, these rules, or by order:

(1) Documents may be served by any means of delivery a party chooses, including facsimile transmission. With the exception of documents served pursuant to Rule 70 (Petitions for discretionary review), Rule 45 (Temporary reinstatement proceedings), or Subpart F (Applications for Temporary Relief), documents served by facsimile transmission shall not exceed 15 pages, excluding the facsimile cover sheet. When filing by facsimile transmission (see § 2700.5(e)), the filing party must also serve by facsimile transmission or, if service by facsimile transmission is impossible, the filing party must serve by a third-party commercial overnight delivery service or by personal delivery.

(2) When service is by personal delivery or facsimile, service is effective upon successful receipt by the party intended to be served. When service is by mail, service is effective upon mailing.

\* \* \* \* \*  
5. Revise § 2700.8 to read as follows:

**§ 2700.8 Computation of time.**

Except to the extent otherwise provided herein (see, e.g., § 2700.45), the due date for a pleading or other deadline for party or Commission action (hereinafter "due date") is determined sequentially as follows:

(a) When the period of time prescribed for action is less than 11 days, Saturdays, Sundays, and federal holidays shall be excluded in determining the due date.

(b) When a party serves a pleading by a method of delivery other than same-day service, the due date for party action in response is extended 5 additional calendar days beyond the date otherwise prescribed, after consideration of paragraph (a) of this section where applicable.

(c) The day from which the designated period begins to run shall not be included in determining the due date. The last day of the prescribed period for action, after consideration of

paragraphs (a) and (b) of this section where applicable, shall be included and be the due date, unless it is a Saturday, Sunday, federal holiday, or other day on which the Commission's offices are not open or the Commission is open but unable to accept filings, in which event the due date shall be the next day which is not one of the aforementioned days.

*Example 1:* A motion is filed with the Commission on Friday, July 1, 2005. Under § 2700.10(d), other parties in the proceeding have 8 days in which to respond to the motion. Because the response period is less than 11 days, intervening weekends and holidays, such as Monday, July 4, 2005, are excluded in determining the due date. A response is thus due by Thursday, July 14, 2005. In addition, those parties not served with the motion on the day it was filed, such as by facsimile or messenger, have 5 additional calendar days in which to respond, or until Tuesday, July 19, 2005.

*Example 2:* A Commission Judge issues his final decision in a case on Friday, July 1, 2005. Under § 2700.70(a), parties have until July 31, 2005, to file with the Commission a petition for discretionary review of the Judge's decision. Even though the decision was mailed, 5 additional calendar days are not added, because paragraph (b) of this section only applies to actions in response to parties' pleadings. However, because July 31, 2005, is a Sunday, the actual due date for the petition is Monday, August 1, 2005.

6. In § 2700.9, revise paragraph (a) and add a new paragraph (c) to read as follows:

**§ 2700.9 Extensions of time.**

(a) The time for filing or serving any document may be extended for good cause shown. Filing of a motion requesting an extension of time is effective upon receipt. A motion requesting an extension of time shall be received no later than 3 days prior to the expiration of the time allowed for the filing or serving of the document, and shall comply with § 2700.10. The motion and any statement in opposition shall include proof of service on all parties by a means of delivery no less expeditious than that used for filing the motion, except that if service by facsimile transmission is impossible, the filing party shall serve by a third-party commercial overnight delivery service or by personal delivery.

\* \* \* \* \*  
(c) This rule does not apply to petitions for discretionary review filed pursuant to section 113(d)(2)(A)(i) of the Act, 30 U.S.C. § 823(d)(2)(A)(i), and § 2700.70(a).

7. In § 2700.10, revise paragraph (c) and the first sentence of paragraph (d) to read as follows:

**§ 2700.10 Motions.**

\* \* \* \* \*

(c) Prior to filing any motion other than a dispositive motion, the moving party shall confer or make reasonable efforts to confer with the other parties and shall state in the motion if any other party opposes or does not oppose the motion.

(d) A statement in opposition to a written motion may be filed by any party within 8 days after service upon the party. \* \* \*

8. Revise § 2700.26 to read as follows:

**§ 2700.26 Notice of contest of proposed penalty assessment.**

A person has 30 days after receipt of the proposed penalty assessment within which to notify the Secretary that he contests the proposed penalty assessment. A person who wishes to contest a proposed penalty assessment must provide such notification regardless of whether the person has previously contested the underlying citation or order pursuant to § 2700.20. The Secretary shall immediately transmit to the Commission any notice of contest of a proposed penalty assessment.

9. In § 2700.28, revise paragraph (b) to read as follows:

**§ 2700.28 Filing of petition for assessment of penalty with the Commission.**

\* \* \* \* \*

(b) *Contents.* The petition for assessment of penalty shall:

(1) List the alleged violations and the proposed penalties. Each violation shall be identified by the number and date of the citation or order and the section of the Act or regulations alleged to be violated.

(2) Include a short and plain statement of supporting reasons based on the criteria for penalty assessment set forth in section 110(i) of the Act, 30 U.S.C. 820(i).

(3) State whether the citation or order has been contested pursuant to § 2700.20 and the docket number of any contest proceeding.

(4) Advise the party against whom the petition is filed that he has 30 days to file an answer pursuant to § 2700.29 and that an answer to the petition must be filed regardless of whether the party has already filed a notice of contest of the citation, order, or proposed penalty assessment involved.

\* \* \* \* \*

10. In § 2700.45, revise paragraph (a), the first and last sentences of paragraph (c), and paragraphs (e) and (f) to read as follows:

**§ 2700.45 Temporary reinstatement proceedings.**

(a) *Service of pleadings.* A copy of each document filed with the

Commission in a temporary reinstatement proceeding shall be expeditiously served on all parties, such as by personal delivery, including courier service, by express mail, or by facsimile transmission.

\* \* \* \* \*

(c) *Request for hearing.* Within 10 calendar days following receipt of the Secretary's application for temporary reinstatement, the person against whom relief is sought shall advise the Commission's Chief Administrative Law Judge or his designee, and simultaneously notify the Secretary, whether a hearing on the application is requested. \* \* \* If a hearing on the application is requested, the hearing shall be held within 10 calendar days following receipt of the request for hearing by the Commission's Chief Administrative Law Judge or his designee, unless compelling reasons are shown in an accompanying request for an extension of time.

\* \* \* \* \*

(e) *Order on application.* (1) Within 7 calendar days following the close of a hearing on an application for temporary reinstatement, the Judge shall issue a written order granting or denying the application. However, in extraordinary circumstances, the Judge's time for issuing an order may be extended as deemed necessary by the Judge.

(2) The Judge's order shall include findings and conclusions supporting the determination as to whether the miner's complaint has been frivolously brought.

(3) The parties shall be notified of the Judge's determination by the most expeditious means reasonably available. Service of the order granting or denying the application shall be by certified or registered mail, return receipt requested.

(4) A Judge's order temporarily reinstating a miner is not a final decision within the meaning of § 2700.69, and except during appellate review of such order by the Commission or courts, the Judge shall retain jurisdiction over the temporary reinstatement proceeding.

(f) *Review of order.* Review by the Commission of a Judge's written order granting or denying an application for temporary reinstatement may be sought by filing with the Commission a petition, which shall be captioned "Petition for Review of Temporary Reinstatement Order," with supporting arguments, within 5 business days following receipt of the Judge's written order. The filing of any such petition is effective upon receipt. The filing of a petition shall not stay the effect of the Judge's order unless the Commission so directs; a motion for such a stay will be

granted only under extraordinary circumstances. Any response shall be filed within 5 business days following service of a petition. Pleadings under this rule shall include proof of service on all parties by a means of delivery no less expeditious than that used for filing, except that if service by facsimile transmission is impossible, the filing party shall serve by a third-party commercial overnight delivery service or by personal delivery. The Commission's ruling on a petition shall be made on the basis of the petition and any response (any further briefs will be entertained only at the express direction of the Commission), and shall be rendered within 10 calendar days following receipt of any response or the expiration of the period for filing such response. In extraordinary circumstances, the Commission's time for decision may be extended.

\* \* \* \* \*

11. Revise § 2700.51 to read as follows:

**§ 2700.51 Hearing dates and sites.**

All cases will be assigned a hearing date and site by order of the Judge. In fixing the time and place of the hearing, the Judge shall give due regard to the convenience and necessity of the parties or their representatives and witnesses, the availability of suitable hearing facilities, and other relevant factors.

12. In § 2700.52, revise the first sentence of paragraph (a) to read as follows:

**§ 2700.52 Expedition of proceedings.**

(a) *Motions.* In addition to making a written motion pursuant to § 2700.10, a party may request expedition of proceedings by oral motion, with concurrent notice to all parties. \* \* \*

\* \* \* \* \*

13. In § 2700.56, revise paragraphs (d) and (e) to read as follows:

**§ 2700.56 Discovery; general.**

\* \* \* \* \*

(d) *Initiation of discovery.* Discovery may be initiated after an answer to a notice of contest, an answer to a petition for assessment of penalty, or an answer to a complaint under section 105(c) or 111 of the Act has been filed. 30 U.S.C. 815(c) and 821.

(e) *Completion of discovery.* Discovery shall not unduly delay or otherwise impede disposition of the case, and must be completed at least 20 days prior to the scheduled hearing date. For good cause shown, the Judge may extend or shorten the time for discovery.

14. In § 2700.67, revise paragraph (a) to read as follows:

**§ 2700.67 Summary decision of the Judge.**

(a) *Filing of motion for summary decision.* At any time after commencement of a proceeding and no later than 25 days before the date fixed for the hearing on the merits, a party may move the Judge to render summary decision disposing of all or part of the proceeding. Filing of a summary decision motion and an opposition thereto shall be effective upon receipt.

\* \* \* \* \*

15. In § 2700.69, add a new last sentence to paragraph (c) and add new paragraph (d) to read as follows:

**§ 2700.69 Decision of the Judge.**

\* \* \* \* \*

(c) *Correction of clerical errors.* \* \* \* Neither the filing of a motion to correct a clerical error, nor the issuance of an order or amended decision correcting a clerical error, shall toll the time for filing a petition for discretionary review of the Judge's decision on the merits.

(d) *Effect of decision of Judge.* A decision of a Judge is not a precedent binding upon the Commission.

16. In § 2700.70, revise the second sentence of paragraph (a) and paragraph (f) to read as follows:

**§ 2700.70 Petitions for discretionary review.**

(a) *Procedure.* \* \* \* Filing of a petition for discretionary review is effective upon receipt. \* \* \*

\* \* \* \* \*

(f) *Motion for leave to exceed page limit.* A motion requesting leave to exceed the page limit shall be received not less than 3 days prior to the date the petition for discretionary review is due to be filed, shall state the total number of pages proposed, and shall comply with § 2700.10. Filing of a motion requesting an extension of page limit is effective upon receipt. The motion and any statement in opposition shall include proof of service on all parties by a means of delivery no less expeditious than that used for filing the motion, except that if service by facsimile transmission is impossible, the filing party shall serve by a third-party commercial overnight delivery service or by personal delivery.

\* \* \* \* \*

**§ 2700.72 [Removed and reserved]**

17. Remove and reserve § 2700.72.

18. In § 2700.75, revise paragraphs (f) and (g) and add new paragraph (h) to read as follows:

**§ 2700.75 Briefs.**

\* \* \* \* \*

(f) *Motion for leave to exceed page limit.* A motion requesting leave to

exceed the page limit for a brief shall be received not less than 3 days prior to the date the brief is due to be filed, shall state the total number of pages proposed, and shall comply with § 2700.10. Filing of a motion requesting an extension of page limit is effective upon receipt. The motion and any statement in opposition shall include proof of service on all parties by a means of delivery no less expeditious than that used for filing the motion, except that if service by facsimile transmission is impossible, the filing party shall serve by a third-party commercial overnight delivery service or by personal delivery.

(g) *Number of copies.* As provided in § 2700.5(e), each party shall file the original and six copies of its brief. If the filing party is not represented by a lawyer, the original shall be sufficient.

(h) *Table of contents.* Each opening and response brief filed with the Commission shall contain a table of contents. Unless otherwise ordered by the Commission, a party is not required to submit a table of contents for a previously filed petition for discretionary review that has been designated as the party's opening brief pursuant to paragraph (a) of this section.

19. In § 2700.76, revise paragraph (c) to read as follows:

**§ 2700.76 Interlocutory review.**

\* \* \* \* \*

(c) *Briefs.* When the Commission grants interlocutory review, it shall also issue an order which addresses page limits on briefs and the sequence and schedule for filing of initial briefs, and, if permitted by the order, reply briefs.

\* \* \* \* \*

20. In § 2700.78, revise paragraph (b) to read as follows:

**§ 2700.78 Reconsideration.**

\* \* \* \* \*

(b) Unless the Commission orders otherwise, the filing of a petition for reconsideration shall not stay the effect of a decision or order of the Commission.

21. In § 2700.80, revise paragraph (a) to read as follows:

**§ 2700.80 Standards of conduct; disciplinary proceedings.**

(a) *Standards of conduct.* Individuals practicing before the Commission or before Commission Judges shall conform to the standards of ethical conduct required of practitioners in the courts of the United States.

\* \* \* \* \*

**PART 2704—IMPLEMENTATION OF THE EQUAL ACCESS TO JUSTICE ACT IN COMMISSION PROCEEDINGS**

22. The authority citation for part 2704 continues to read as follows:

**Authority:** 5 U.S.C. 504(c)(1); Pub. L. 99-80, 99 Stat. 183; Pub. L. 104-121, 110 Stat. 862.

23. Revise § 2704.100 to read as follows:

**§ 2704.100 Purpose of these rules.**

The Equal Access to Justice Act, 5 U.S.C. 504, provides for the award of attorney fees and other expenses to eligible individuals and entities who are parties to certain administrative proceedings (called "adversary adjudications") before this Commission. An eligible party may receive an award when it prevails over the U.S. Department of Labor, Mine Safety and Health Administration ("MSHA"), unless the Secretary of Labor's position in the proceeding was substantially justified or special circumstances make an award unjust. In addition to the foregoing ground of recovery, a non-prevailing eligible party may receive an award if the demand of the Secretary is substantially in excess of the decision of the Commission and unreasonable, unless the applicant party has committed a willful violation of law or otherwise acted in bad faith, or special circumstances make an award unjust. The rules in this part describe the parties eligible for each type of award. They also explain how to apply for awards, and the procedures and standards that this Commission will use to make the awards. In addition to the rules in this part, the Commission's general rules of procedure, part 2700 of this chapter, apply where appropriate.

24. In § 2704.104, revise paragraph (c) to read as follows:

**§ 2704.104 Eligibility of applicants.**

\* \* \* \* \*

(c) For the purposes of awards for non-prevailing parties under § 2704.105(b), eligible applicants are small entities as defined in 5 U.S.C. 601, subject to the annual-receipts and number-of-employees standards as set forth by the Small Business Administration at 13 CFR part 121.

\* \* \* \* \*

25. In § 2704.105, revise paragraph (b) introductory text to read as follows:

**§ 2704.105 Standards for awards.**

\* \* \* \* \*

(b) If the demand of the Secretary is substantially in excess of the decision of the Commission and is unreasonable when compared with such decision,



under the facts and circumstances of the case, the Commission shall award to an eligible applicant who does not prevail the fees and expenses related to defending against the excessive demand, unless the applicant has committed a willful violation of law or otherwise acted in bad faith or special circumstances make an award unjust. The burden of proof is on the applicant to establish that the Secretary's demand is substantially in excess of the Commission's decision; the Secretary may avoid an award by establishing that the demand is not unreasonable when compared to that decision. As used in this section, "demand" means the express demand of the Secretary which led to the adversary adjudication, but does not include a recitation by the Secretary of the maximum statutory penalty—

\* \* \* \* \*

26. In § 2704.206, revise the second sentence of paragraph (a) and paragraph (c) to read as follows:

**§ 2704.206 When an application may be filed.**

(a) \* \* \* An application may also be filed by a non-prevailing party when a demand by the Secretary is substantially in excess of the decision of the Commission and is unreasonable when compared with such decision. \* \* \*

\* \* \* \* \*

(c) For purposes of this part, final disposition before the Commission means the date on which a decision or order disposing of the merits of the proceeding or any other complete resolution of the proceeding, such as a settlement or voluntary dismissal, becomes final (pursuant to sections 105(d) and 113(d) of the Mine Act (30 U.S.C. 815(d) and 823(d)) and unappealable, both within the Commission and to the courts (pursuant to section 106(a) of the Mine Act (30 U.S.C. 816(a)).

27. In § 2704.302, revise the second sentence of paragraph (a) to read as follows:

**§ 2704.302 Answer to application.**

(a) \* \* \* Unless counsel requests an extension of time for filing, files a statement of intent to negotiate under paragraph (b), or a proceeding is stayed pursuant to § 206(b), failure to file an answer within the 30-day period may be treated as a consent to the award requested.

\* \* \* \* \*

**PART 2705—PRIVACY ACT IMPLEMENTATION**

28. The authority citation for part 2705 continues to read as follows:

**Authority:** 5 U.S.C. 552a; Pub. L. 93-579, 88 Stat. 1896.

29. In § 2705.1, republish the introductory text and revise paragraph (a) to read as follows:

**§ 2705.1 Purpose and scope.**

The purposes of these regulations are to:

(a) Establish a procedure by which an individual can determine if the Federal Mine Safety and Health Review Commission, hereafter the "Commission," maintains a system of records which includes a record pertaining to the individual. This does not include Commission files generated in adversary proceedings under the Federal Mine Safety and Health Act; and

\* \* \* \* \*

Dated: December 29, 2005.

Michael F. Duffy,  
Chairman, Federal Mine Safety and Health Review Commission.

[FR Doc. 06-64 Filed 1-4-06; 8:45 am]

BILLING CODE 6735-01-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

[EPA-R01-OAR-2005-ME-0006; A-1-FRL-8018-1]

**Approval and Promulgation of Air Quality Implementation Plans; Maine; 15% and 5% Emission Reduction Plans, Inventories, and Transportation Conformity Budgets for the Portland One and Eight Hour Ozone Nonattainment Areas**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The EPA is proposing to approve State Implementation Plan (SIP) revisions submitted by the state of Maine. These revisions establish a 15% VOC emission reduction plan, and revised 1990 base year emissions inventory, for the Portland Maine one-hour ozone nonattainment area. Additionally, these revisions establish a 5% increment of progress emission reduction plan, 2002 base year inventory, and transportation conformity budget for the Portland Maine eight-hour ozone nonattainment area. The intended effect of this action

is to propose approval of these plans as revisions to the Maine SIP. This action is being taken under the Clean Air Act.

**DATES:** Written comments must be received on or before February 6, 2006.

**ADDRESSES:** Submit your comments, identified by Regional Material in EDocket (RME) ID Number EPA-R01-OAR-2005-ME-0006 by one of the following methods:

1. Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
2. Agency Web site: <http://docket.epa.gov/rmepub/> Regional Material in EDocket (RME), EPA's electronic public docket and comment system, will be replaced by an enhanced federal-wide electronic docket management and comment system located at <http://www.regulations.gov>. On November 28, 2005, when that occurs, you will be redirected to that site to access the docket EPA-R01-OAR-2005-ME-0006 and submit comments. Follow the on-line instructions for submitting comments.
3. E-mail: [conroy.dave@epa.gov](mailto:conroy.dave@epa.gov).
4. Fax: 617-918-0661.
5. Mail: "RME ID Number EPA-R01-OAR-2005-ME-0006" David Conroy, U.S. Environmental Protection Agency, EPA New England Regional Office, One Congress Street, Suite 1100 (mail code CAQ), Boston, MA 02114-2023.
6. Hand Delivery or Courier. Deliver your comments to: David Conroy, Manager, Air Programs Branch, Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, One Congress Street, 11th floor, (CAQ), Boston, MA 02114-2023. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding federal holidays.

**Instructions:** Direct your comments to Regional Material in EDocket (RME) ID Number EPA-R01-OAR-2005-ME-0006. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://docket.epa.gov/rmepub/> including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through Regional Material in EDocket (RME), [regulations.gov](http://www.regulations.gov), or e-mail, information that you consider to be CBI or otherwise protected. The EPA RME website and

the federal regulations.gov website are "anonymous access" systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through RME or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. 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. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

**Docket:** All documents in the electronic docket are listed in the Regional Material in EDocket (RME) index at <http://docket.epa.gov/rmepub/>. Although listed in the index, some information is not publicly available, i.e. CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in RME or in hard copy at Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, One Congress Street, Suite 1100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Bob McConnell, Air Quality Planning Unit, U.S. EPA Region 1, One Congress Street, Suite 1100-CAQ, Boston, MA 02114-2023, telephone number 617-918-1046, fax number 617-918-0046, e-mail [mcconnell.robert@epa.gov](mailto:mcconnell.robert@epa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **I. General Information**

###### *A. How Can I Get Copies Of This Document and Other Related Information?*

In addition to the publicly available docket materials available for inspection electronically in Regional Material in EDocket, and the hard copy available at

the Regional Office, which are identified in the **ADDRESSES** section above, copies of the state submittal and EPA's technical support document are also available for public inspection during normal business hours, by appointment at the Bureau of Air Quality Control, Department of Environmental Protection, Tyson Building, First Floor, Augusta Mental Health Institute Complex, Augusta, ME 04333-0017.

###### *B. 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 regional file/rulemaking identification 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. Rulemaking Information**

Organization of this document. The following outline is provided to aid in locating information in this preamble.

###### **A. Background**

###### **B. 15% VOC Emission Reduction Plan**

1. Background
2. Calculation of Required Reductions
  - a. Step 1: 1990 Base Year Inventory
  - b. Step 2: 1990 rate-of-progress inventory
  - c. Step 3: Adjusted base year inventory
  - d. Step 4: Calculation of required reductions
  - e. Step 5: Determination of total expected reductions
  - f. Step 6: Target level of emissions
  - g. Step 7: Project emissions to target year
3. Evaluation of Control Measures
  - a. Point source controls
  - b. Area source controls
  - c. On-road mobile source controls
  - d. Nonroad mobile source controls
4. Contingency Measures
5. 5% Increment of Progress Plan
  1. Background
  2. 5% Increment of Progress Plan Requirements
    - a. Step 1: Establish 2002 emissions baseline

- b. Step 2: Calculate 5% reduction
  - c. Step 3: Project emissions to 2007
  - d. Step 4: Determine emissions target
  - e. Step 5: Compare 2007 to 2002 inventory
3. Evaluation of Control Measures
    - a. Chapter 130 solvent cleaning rule
    - b. Chapter 151 AIM coatings rule
    - c. Chapter 152 consumer and commercial products rule
    - d. Chapter 153 mobile equipment repair and refinishing rule
- D. Transportation Conformity Budgets**

###### **A. Background**

On June 9, 13, and 14, 2005, the Maine Department of Environmental Protection (DEP) submitted revisions to its State Implementation Plan (SIP) for ozone. These revisions consist of a 15% rate-of-progress (ROP) plan, a 5% increment of progress emission reduction plan, the associated base year emission inventories developed in support of these plans, and transportation conformity budgets for 2007 established by the 5% increment of progress plan. A public hearing on these SIP revisions was conducted by the state on April 21, 2005. This action proposes approval of these SIP revisions, and provides EPA's rationale for doing so.

###### **B. 15% VOC Emission Reduction Plan**

###### **1. Background**

Section 182(b)(1) of the Clean Air Act (CAA) as amended in 1990 requires that moderate and above one hour ozone nonattainment areas develop plans to reduce area wide Volatile Organic Compound (VOC) emissions from a 1990 baseline by 15%. The plans were required to be submitted by November 15, 1993 and the reductions were required to be achieved within 6 years after enactment, meaning by November 15, 1996. The CAA also set limitations on the creditability of certain types of reductions. For example, states cannot take credit for reductions achieved by Federal Motor Vehicle Control Program (FMVCP) measures (new car emissions standards) that were already in place prior to the 1990 amendments to the CAA, or for reductions due to controls on gasoline Reid Vapor Pressure (RVP) that were promulgated prior to 1990.

In 1991, EPA designated the Portland area, which includes all of Cumberland, Sagadahoc and York counties, as a nonattainment area for the one hour ozone standard, and classified the area as moderate. Maine is, therefore, subject to the 15% rate-of-progress (ROP) requirement. Maine submitted a final 15% ROP plan to EPA on July 25, 1995. However, air quality in the Portland area fluctuated above and below the one-hour ozone national ambient air quality standard (NAAQS) after 1995.



Pursuant to EPA policy,<sup>1</sup> the Agency interpreted the Act not to require a 15% plan during times that the Portland area's air quality was better than EPA's one hour ozone NAAQS, and so EPA never approved the state's June 1995 plan into the SIP.

Beginning in 2002, the Portland area has again been in violation of the one hour ozone standard, and so the 15% plan requirement is again pertinent for this area. In consultation with Maine DEP, it was determined that the state would revise the 15% plan submitted in 1995 to reflect up-to-date emission estimation methodologies and control strategies. On June 9, 2005, the state submitted a revised, adopted 15% rate-of-progress plan for the Portland one-hour nonattainment area.

## 2. Calculation of Required Reductions

### a. Step 1: 1990 base year inventory.

The first step in calculating the emission reductions needed to comply with the 15% VOC emission reduction requirement is to prepare a 1990 base year emission inventory for VOCs. The EPA approved Maine's 1990 base year inventory of ozone precursors on February 28, 1997 (62 FR 9081). Some of the emission estimates contained within Maine's revised 15% plan submitted in June of 2005 were updated using improved methodologies that have arisen since the earlier inventory was prepared. The most significant revisions made occurred in the estimates for mobile sources. For the nonroad sector (excluding commercial marine, rail, and emissions from aircraft), Maine DEP's prior emission estimates were based on outdated studies conducted for EPA's then Office of Mobile Sources in 1991. Since that time, EPA has made numerous

refinements to its emission estimation techniques for the diverse types of nonroad engines, and compiled them in a software program referred to as the Nonroad Model. Maine DEP used this tool to generate a revised 1990 emission estimate for this sector. Additionally, Maine DEP's originally approved 1990 emission estimate for on-road vehicles was based on EPA's Mobile 5a model. The state re-calculated its 1990 emission estimate using the Mobile 6.2 version of the model, as that is the most current version. Maine also made changes to some of its emission estimates for stationary sources, as outlined in the support material submitted by the state with this SIP revision.

Table 1 below compares the previously approved emission estimates to those in the state's revised 1990 inventory.

TABLE 1.—COMPARISON OF 1990 EMISSION ESTIMATES (TPSD)

Source category	Originally approved emissions	June, 2005 emissions
Point Source .....	9.65	9.65
Area Source .....	31.8	33.43
Non-road Mobile .....	7.4	18.08
On-Road Mobile .....	49.87	63.31
Biogenic .....	197.6	197.6
Total .....	296.32	322.07

During development of the revised 15% plan, Maine DEP and EPA ensured that the 1990 emission estimation methodologies matched the methods used to prepare its projected 2005 inventory to ensure that the same methods were used for both inventories. This was done to ensure that emission reduction credit was not taken due simply to changes in emission estimation technique.

### b. Step 2: 1990 rate-of-progress inventory.

The second step involves excluding biogenic emissions and emissions included within the base year inventory which do not emanate from within the boundaries of the nonattainment area. Maine's base year inventory for the Portland nonattainment area did not include any emissions from sources outside of the area. Therefore, step 2 consists of simply subtracting the biogenic VOC component, producing a "rate-of-progress" inventory of 124.47 tpsd.

### c. Step 3: Adjusted base year inventory.

The third step in calculating the required emission reductions is to subtract the emission reductions that are not creditable toward the 15% VOC emission reduction goal. The reductions which are not creditable include those which would have occurred even without passage of the 1990 CAA Amendments due to control programs already in place. The FMVCP and gasoline RVP standards are examples of such non-creditable programs. Maine had no RVP reductions to account for since the state has been using gasoline that meets the required RVP maximum of 9.0 psi or lower since 1989, but did have to account for the non-creditable FMVCP reductions. Maine included within the 15% plan the input and output MOBILE6.2 files documenting its determination of these reductions, which turned out to be 35.93 tpsd. Subtracting this amount from the rate-of-progress inventory calculated in step 2 of 124.47 tpsd yields 88.54 tpsd.

### d. Step 4: Calculation of required reductions.

In this step, the adjusted base year inventory is multiplied by 15% to calculate the amount of the required 15% emission reduction:  $88.54 * 0.15 = 13.28$  tpsd.

### e. Step 5: Determination of total expected reductions.

The total expected reductions from the 1990 rate-of-progress inventory (calculated in step 2) include the 15% emission reduction calculated in step 4, and the emission reductions anticipated from the noncreditable programs as outlined in step 3. Additionally, emission reductions that occur between 1990 and 1996 due to corrections to pre-existing (pre-1990) but deficient I&M programs and/or deficient RACT rules, though not eligible to count towards the 15% emission reduction requirement, still represent emission reductions that are expected to occur between 1990 and 1996. Maine did not have a pre-1990 I&M requirement, nor any "RACT Fix-up" obligations, and so the total expected emission reductions for the Portland nonattainment area are the

<sup>1</sup> May 10, 1995, guidance memorandum signed by John S. Seitz, Director of the Office of Air Quality Planning and Standards, which stated in part that

ozone nonattainment areas subject to 15% ROP requirements that were meeting the ozone standard

did not need to submit 15% ROP plans as long as the area continued to meet the standard.

sum of reductions from steps 3 and 4:  $35.93 + 13.28 = 49.21$  tpsd.

f. Step 6: Target level of emissions.

The target level of emissions for 1996 is obtained by subtracting the total required reductions (step 5) from the 1990 rate-of-progress inventory (step 2). For the Portland area this yields:  $124.47 - 49.21 = 75.26$  tpsd.

g. Step 7: Project emission to target year.

The original 15% plans required by the CAA were required to be submitted to EPA in 1993. These plans were to include emission projections to 1996, the year by which the 15% emission reductions were to be achieved. Due to the circumstances described above, Maine DEP's revised 15% plan could not conceivably demonstrate that a 15% emission reduction occurred from 1990 levels by 1996, as that year has passed. Once a statutory deadline has passed and has not been replaced by a later one, it is reasonable to require the plan to comply with the act "as soon as possible." See Delaney v. EPA, 898 F.2d

687, 691 (9th Circuit, 1990). EPA has interpreted this requirement to be "as soon as practicable." Upon consultation between EPA and Maine DEP, EPA determined that 2005 is the most suitable year by which Maine's revised 15% analysis must demonstrate the 15% reduction. Accordingly, an estimate of emissions in 2005 was needed.

Although an estimate of 2005 emission was needed, the most current inventory available to Maine DEP was its 2002 inventory, and so an estimate of growth in emissions from 2002 to 2005 was used to complete the 15% VOC emission reduction demonstration. This was accomplished by taking the 2002 inventory and multiplying it by growth factors which estimate growth from 2002 to 2005. Growth factors specific to each source category were used since the sources typically grow at different rates. For example, Maine used growth factors obtained from the Bureau of Economic Analysis (BEA) via a tool they developed called the Economic

Growth Analysis System (EGAS) to project most of the point and area source emissions growth from 2002 to 2005.

Once emissions were projected to 2005, a review was made to see if any controls not in existence in 2002 became effective by 2005. If so, the state reduced emissions to account for the controls, as will be described in section II.B. of this document. Maine DEP did not use the emission reductions generated pursuant to its adoption of area source VOC rules developed by the Ozone Transport Commission (OTC) in its 15% plan, i.e., Maine's projected 2005 emission estimates do not reflect emission reductions from these measures. Maine DEP did use reductions from these measures to meet its 5% plan emission reductions requirements as is explained in Section C. of this document.

Table 2 below compares Maine's projected, controlled 2005 emissions for the Portland nonattainment area with its 1990 emission estimates:

TABLE 2.—COMPARISON OF 1990 AND 2005 VOC EMISSIONS

Emission source category	1990 base year emissions	2005 projected, controlled emissions
Point .....	9.65	*4.32
Area .....	33.43	24.7
Off-road Mobile .....	18.08	15.75
On-road Mobile .....	63.31	23.48
Total .....	124.47	68.25

\* Includes 0.82 tpsd in VOC offsets awarded to Spinnaker Coating.

The CAA Section 182(b)(1)(A) language regarding the 15% VOC emission reduction requirement states that this reduction must occur, "accounting for any growth in emissions after the year in which the CAAA of 1990 were enacted." EPA interprets this passage to mean any growth in emission levels between 1990 and 1996 must also be offset so that by 1996, emission levels will be truly 15% lower than they were in 1990. In actuality, emission levels

will be reduced by more than 15% in the evaluation year because other required reductions, such as those from pre-enactment FMVCP, will also be occurring as described above.

Maine's projected, controlled 2005 inventory for the Portland area totals 68.25 tpsd. This is considerably lower than the target level of emissions of 75.26 calculated in step 6. Maine DEP has therefore shown that emissions have been reduced by 15% from 1990 levels,

after accounting for growth, and not counting the non-creditable reductions from the FMVCP program.

### 3. Evaluation of control measures.

#### a. Point source controls.

Maine DEP's revised 15% plan analysis shows that VOC emissions from point sources fell 5.33 tpsd (55%) between 1990 and 2005. Table 3 below summarizes the control programs that affected this decrease in emissions.

TABLE 3.—POINT SOURCE CONTROLS FOR VOC SOURCES

Point source category	Rule implementation date	Federal approval
Chapter 129 (Surface Coating) .....	May 31, 1995 .....	June 17, 1994, (59 FR 31154).
Chapter 130 (Solvent Degreasers) .....	May 31, 1995 .....	June 17, 1994, (59 FR 31154).
Chapter 134 (Non-CTG Sources) .....	May 31, 1995 .....	April 18, 2000, (65 FR 20749).
Bulk Terminal Emission Limit .....	May 31, 1996 .....	October 15, 1996, (61 FR 53636).

Additional information on each of these regulations is available in the **Federal Register** notice that contains EPA's approval of them.

**VOC offsets:** Maine DEP's revised 15% plan indicates that one source in the Portland area, Spinnaker Coatings in Westbrook, applied for and obtained

VOC offset credits in the amount of 213 tons which could be used (emitted) in the future. To account for this, Maine DEP translated these emissions into

what could be emitted during a typical summer day, (0.82 tons), and added that value to its projected 2005 (and 2007 for its 5% plan) emission estimate from point sources.

b. Area source controls.

Maine DEP's revised 15% plan analysis shows that VOC emissions from area sources fell 8.73 tpsd (26%) between 1990 and 2005, despite the growth that occurred in population and other activity indicators. The discussion below summarizes the area source control programs that caused this change in emissions.

*Stage I:* Maine has adopted and submitted to EPA a Stage I vapor recovery regulation that limits VOC emissions from the filling of underground storage tanks at gasoline stations. The rule applies to facilities with through-puts that exceed 10,000 gallons per month. Chapter 118 of the state's VOC control regulations entitled "Gasoline Dispensing Facilities Vapor Control" was submitted to EPA on July 11, 1994, and approved as a revision to the Maine SIP within a **Federal Register** notice published on June 29, 1995 (60 FR 33730). The state projects that VOC emissions will be reduced by 1.35 (52%) tpsd by this program between 1990 and 2005.

*Stage II:* Maine has adopted and submitted to EPA a Stage II vapor recovery regulation that limits VOC emissions from vehicle refueling activity in the Portland nonattainment area. Chapter 118 of the state's VOC control regulations entitled "Gasoline Dispensing Facilities Vapor Control" was submitted to EPA on July 26, 1995, and approved as a revision to the Maine SIP within a **Federal Register** notice published on October 15, 1996 (61 FR 53636). The rule is applicable to gasoline stations with throughputs greater than 1,000,000 gallons per year. Maine used EPA's Mobile 6.2 program to calculate emission reductions from all of the state's on-road mobile source control programs simultaneously, and therefore a separate amount of emission reduction credit from the Stage II program is not reported in the state's 15% SIP.

*Cutback asphalt:* Maine has adopted and submitted to EPA a cutback asphalt regulation (Chapter 131) that prohibits the use of cutback asphalt for most applications during the ozone season. Maine adopted this rule on January 6, 1993, and submitted it to EPA as a revision to the state's SIP. EPA approved the rule as part of the state's SIP within a **Federal Register** notice dated June 17, 1994 (59 FR 31154). The state determined that emissions were reduced by 7.33 tpsd (95%) between

1990 and 2005 due to this control program.

*Architectural and industrial maintenance (AIM) coatings:* Emission reductions were taken from the Architectural and Industrial Maintenance (AIM) surface coating emission source category due to a federal rule that required such coatings be reformulated to emit less VOCs. In a memo dated March 22, 1995, EPA provided guidance on the expected reductions from the national rulemaking on AIM coatings, stating that emissions would be reduced by 20%. The state determined that despite growth in this sector between 1990 and 2005, emissions were reduced by 0.46 tpsd (9%) in the Portland nonattainment area due to this federal rule.

*Automobile refinishing:* A November 29, 1994, EPA guidance memorandum specifies that states can assume a 37% control level for this source category due to a National rule. The state projects that between 1990 and 2005, the net effect of activity growth and implementation of the federal rule reduced emissions by 0.12 tpsd (20%) in the Portland nonattainment area.

*Consumer products:* On June 22, 1995, EPA issued a guidance memorandum regarding the regulatory schedule for consumer and commercial products which indicated that states that have not adopted their own consumer and commercial products rule could take emission reduction credit from a pending national consumer and commercial products rulemaking. After re-calculating its base year emission estimate to account for updated guidance as mentioned earlier in this document, the state applied the recommended control level of 12.5% and determined that between 1990 and 2005, emissions from this sector actually rose by 0.19 tpsd (4%) as population growth overwhelmed the reductions from the federal rule.

c. On-road mobile source controls.

Maine DEP identified and modeled within its Mobile 6.2 runs a number of state and federal motor vehicle emission and fuel control programs that reduce emissions in the state. These control programs are discussed below. Region 1 has confirmed that Maine correctly modeled these programs together to calculate the overall emission reduction benefit from them.

*Low RVP gasoline program:* On June 26, 1991 the state submitted a letter from the Governor requesting that Maine participate in the reformulated fuels program. This request was published in the **Federal Register** on September 10, 1991, 56 FR 46119. However, Maine subsequently rescinded

its participation in this program and replaced it with its Chapter 119 rule, a low RVP program which limits the RVP of gasoline sold in the 7 southern most Maine counties, including all of the Portland 1-hour area, to a level no greater than 7.8 from May 1 to September 15 of each year. This regulation was submitted to EPA and approved into the state's SIP on March 6, 2002 (67 FR 10099).

*Motor vehicle inspection and maintenance (I&M) program:* Maine state regulations include an I&M program which has minimal requirements. In Cumberland county, the program requires a check of gas cap fitting adequacy. Additionally, an anti-tampering program checks for any modification to exhaust catalysts exists in Portland, Sagadahoc, and York counties. Maine adopted its automobile inspection and maintenance program on July 9, 1998, and submitted it to EPA as a revision to the state's SIP. EPA approved the program into the state's SIP in a **Federal Register** notice published on January 10, 2001 (66 FR 1875).

*Tier I federal motor vehicle control program:* The EPA promulgated standards for 1994 and later model year light-duty vehicles and light-duty trucks (56 FR 25724, June 5, 1991). Since the standards were adopted after the Clean Air Act amendments of 1990, the resulting emission reductions are creditable toward the 15 percent reduction goal.

*California low emission vehicle program:* Chapter 127 of the Maine DEP Air rules is entitled "New Motor Vehicle Emission Standards," began phasing in during 2001, and requires the sale of motor vehicles meeting California certification standards contained within Title 13 of the California Code of Regulations pertaining to emission standards for motor vehicles. Maine submitted this rule to EPA as a revision to the state's SIP on February 25, 2004. EPA approved the program into the Maine SIP in a final rule published in the **Federal Register** on April 28, 2005 (70 FR 21959).

*Onboard vapor recovery systems:* This is a federal program required by section 202(a)(6) of the 1990 CAAA. For passenger cars, the onboard control requirements will be phased in over three model years with 40 percent, 80 percent, and 100 percent of new car production being required to meet the standard in model years 1998, 1999, and 2000, respectively. The phase-in of onboard controls for light trucks will follow the phase-in period for cars. Onboard controls for the lighter class of

light trucks (those under 6000 pounds GVWR) will be phased in during models years 2001 through 2003, while onboard controls for the heavier light trucks (those from 6001 through 8500 pounds GVWR) will be phased in during models years 2004 through 2006. When fully phased in, the new controls will capture 95 percent of refueling emissions.

d. Nonroad mobile source controls.

EPA has established emission standards for a variety of non-road engine categories that will reduce ozone precursor emissions over the time period covered by the Maine 15% plan. These standards affect heavy duty compression ignition (diesel) engines, small non-road spark-ignition (gasoline) engines, large non-road gasoline engines, gasoline powered outboard and personal water-craft engines, commercial diesel marine engines, recreational stern-drive and inboard engines, and locomotives. Detailed information regarding each of these emission control programs is available on EPA's Web site at: <http://www.epa.gov/otaq>.

EPA has also created a draft nonroad air emissions estimation model that can be used to calculate emissions from all nonroad engines except those used to power aircraft, locomotives, and large commercial marine vessels, for the present year, and for past or future years. Maine DEP used the Nonroad Model to calculate air emissions from this sector in the Portland area. Region 1 has reviewed and confirmed the emission estimates for nonroad engines Maine has used in its revised inventories and ROP plans.

#### 4. Contingency Measures

On April 30th, 2004, EPA published a final rule (the "Phase 1" rule), which included provisions for revoking the one-hour ozone standard one-year from the effective date of the designations for the 8-hour ozone standard. This requirement is codified in the Code of Federal Regulations at 40 CFR Part 50.9(b). Prior to revocation, ozone nonattainment areas classified as moderate or above were required to include in their submittals under section 172(b) of the CAA, contingency measures to be implemented if ROP was not achieved or if the standard is not attained by the applicable date. However, on May 26, 2005, EPA published a final rule (70 FR 30592) that, in light of the revocation of the one-hour ozone standard, removed the requirement that contingency plans be adopted for ROP plans submitted to make progress toward achievement of the one-hour ozone standard. Accordingly, Maine-DEP's revised 15%

ROP plan does not contain contingency measures.

#### C. 5% Increment of Progress Plan

##### 1. Background

On July 18, 1997, EPA promulgated a new NAAQS for ozone based on an 8-hour averaging period. Court challenges to the 8-hour ozone standard delayed implementation of it, but were eventually resolved and on April 30, 2004, EPA promulgated designations for the 8-hour ozone standard in the **Federal Register** (69 FR 23858). The effective date for the designations was June 15, 2004. Portions of Maine were designated nonattainment for this standard, including the Portland 8-hour area which was classified as a marginal nonattainment area. The Portland 8-hour marginal nonattainment area consists of Sagadahoc county, most portions of Cumberland and York counties, and one town in Androscoggin county. As such, it differs geographically from the Portland 1-hour nonattainment area, as that area consists of Cumberland, Sagadahoc, and York counties in their entirety.

On April 30, 2004, EPA also published the first part of its rule governing implementation of the 8-hour ozone standard (69 FR 23951). Although this rule dealt primarily with issues pertaining to the new 8-hour ozone standard, it included some provisions relevant to the one-hour ozone NAAQS. Of particular interest to Maine was a provision allowing one-hour areas with unmet attainment demonstration obligations to submit, in lieu of a full one-hour ozone attainment demonstration, an early 5% increment of progress plan toward achievement of the 8-hour standard. Such plans would need to be submitted no later than one year from the effective date of the 8-hour ozone standard, meaning by no later than June 15, 2005. Maine's Portland one-hour nonattainment area has an unmet attainment demonstration obligation, and so Maine DEP decided to prepare a 5% increment of progress plan to meet its unmet one-hour attainment demonstration obligation. Accordingly, Maine's June 9, 2005 SIP revision request to EPA included a 5% increment of progress plan.

The geographic area covered by the Portland 8-hour area is smaller than the area covered by the Portland 1-hour area in that it only includes portions of Cumberland and York counties, whereas the 1-hour area covers these two counties entirely (plus all of Sagadahoc county). Given the difficulties of SIP planning activities at a sub-county level, in particular preparation of emission

inventories at a sub-county level, Maine DEP developed its 5% increment of progress plan such that it covers all of the old one-hour nonattainment area. As such it covers a larger area and plans for more emission reductions than is required, even though one town, the town of Durham in Androscoggin county, is not covered by the plan. EPA worked closely with the Maine DEP in development of this plan, and we believe that the geographic area Maine DEP chose to cover in its 5% increment of progress plan is appropriate and reasonable. We believe this to be so because the mix of stationary and mobile emission sources is fairly uniform across the area, and so the net result of expansion of the geographic area is primarily an increase in the amount of emission reductions that must be planned for.

Given the difficulty and additional uncertainty introduced by developing emission inventories at the sub-county level, it is not likely that doing so would produce data that would improve our decision making ability. Accordingly, as mentioned above we believe that Maine DEP's use of full county emission inventories is appropriate. However, transportation conformity budgets need to match the exact geographic borders of the nonattainment area they are associated with. Since development of on-road mobile source emission estimates at the sub-county level is not unduly burdensome, and critical for transportation conformity purposes, Maine DEP's 5% increment of progress plan contains on-road mobile source inventories for 2007 that exactly match the geographic area of its 8-hour nonattainment area.

#### 2. 5% Increment of Progress Plan Requirements

EPA issued a guidance memorandum<sup>2</sup> on August 18, 2004 which outlines the criteria for 5% increment of progress plans. In brief summary, the guidance requires the emission reduction be based on a 2002 inventory, does not allow credit from federal measures or measures already in the SIP as of 2002, requires that the reduction occur by 2007, and allows use of VOC, NO<sub>x</sub>, or some combination of both pollutants. The steps involved in determining the magnitude of the emission reductions needed to meet the 5% plan obligation are outlined below.

<sup>2</sup> "Guidance on 5% Increment of Progress" (40 CFR 51.905(a)(1)(ii)); dated August 18, 2004; from Lydia Wegman, Director, OAQPS, to EPA Regional Air Directors.

**Step 1: Establish 2002 Emissions Baseline**

The first step in this calculation is the establishment of a 2002 emissions baseline. Although EPA's August 18,

2004 guidance allows states to use EPA's draft 2002 National Emissions Inventory (NEI) for the 2002 baseline, Maine DEP provided a better 2002 emissions baseline by developing their own 2002 inventory. This inventory

includes better activity data in many instances than what is available in EPA's NEI. Maine's 2002 inventory of ozone precursors for the full 3 county area is shown below in Table 4 by major source category.

TABLE 4.—2002 ANTHROPOGENIC EMISSIONS FOR THE PORTLAND AREA

Major source category	2002 VOC emissions (tpsd)	2002 NO <sub>x</sub> emissions (tpsd)
Point .....	3.29	13.08
Area .....	23.65	1.89
On-road .....	30.94	61.20
Off-road .....	16.59	13.23
Com. marine, rail, and aircraft .....	0.45	2.33
<b>Total .....</b>	<b>74.90</b>	<b>91.70</b>

**Step 2: Calculate 5% Reduction**

EPA's August 18, 2004 5% plan guidance allows the 5% reduction to be made from only VOC emission reductions, only NO<sub>x</sub> reductions, or from a combination of VOC and NO<sub>x</sub> reductions which in total equal 5%. Maine DEP chose to demonstrate it could meet the 5% emission reduction

requirement by relying exclusively on VOC emission reductions. Therefore, its emission reduction obligation is calculated as follows:  $0.05 * 74.90 = 3.75$  tpsd of VOC emissions.

**Step 3: Project Emissions to 2007**

The third step in the 5% calculation is to develop a 2007 inventory that reflects growth and controls from

measures already in the SIP or expected to occur due to federal measures. Maine DEP prepared its projected 2007 inventory for the three county Portland area in a manner similar to the way it prepared its 2005 projected inventory as described in section 2.g of this document. Table 5 below shows Maine's 2002 baseline and projected 2007 emissions inventory for VOCs.

TABLE 5.—2002 AND 2007 VOC EMISSIONS BY MAJOR SOURCE CATEGORY

Major source category	2002 VOC emissions (tpsd)	2007 VOC emissions (tpsd)
Point .....	3.29	4.0
Area .....	23.65	25.52
On-road .....	30.94	20.48
Off-road .....	16.59	14.21
Commercial Marine, Rail, and Aircraft .....	0.45	0.5
<b>Total .....</b>	<b>74.90</b>	<b>64.73</b>

**Step 4: Determine Emissions Target**

In Step 4, the required 5% emission reduction of 3.75 tpsd is subtracted from the projected 2007 emission inventory of 64.73 tpsd, establishing an emissions target level of 60.98 tpsd for 2007. Maine's 5% plan demonstrates that it will meet this target by reducing the area source inventory by 4.47 tpsd, taking it from 25.52 tpsd down to 21.05. This will reduce the overall inventory similarly, taking it from 64.73 tpsd to 60.26 tpsd, which is 0.72 tpsd below the target level of emissions.

**Step 5: Compare 2007 to 2002 Inventory**

The final step in the 5% calculation is to ensure that the 2007 projected, controlled inventory is 5% lower than the 2002 emissions baseline. This step is required because in a rapidly growing area, a large increment of growth could conceivably overwhelm the 5% emission reduction, and the reductions

from already scheduled SIP and federal control programs. This is not the case in Maine, however, as the projected, controlled 2007 emission level of 60.26 tpsd is almost 20% lower than 2002 emissions.

**3. Evaluation of Control Measures**

Maine DEP's 5% plan demonstrates that it will achieve the required level of emission reductions via adoption of four VOC emission control measures that are based on model rules developed by the Ozone Transport Commission (OTC). The four rules apply to small source solvent cleaners (degreasers), architectural and industrial maintenance (AIM) coatings, consumer and commercial products, and mobile equipment repair and refinishing. Several of these rules require control measures beyond those already required by the corresponding federal measures relied on in Maine's 15% plan. Each of

these rules, and the emission reductions anticipated from them, are discussed below.

a. *Chapter 130 solvent cleaning rule:* This regulation establishes requirements for testing, evaluating, and limiting VOCs from solvent cleaning machines and sets minimum requirements for equipment and operation standards in order to reduce VOC emissions. Maine used a control factor of 66% as recommended in a report by E.H. Pechan and associates<sup>3</sup> in work done for the OTC. Facilities were required to comply with the rule by January 1, 2005, and Maine DEP expects it to produce 2.57 tpsd in emission reductions. EPA approved this rule into the state's SIP in a final rule published

<sup>3</sup> E.H. Pechan and Associates, "Control Measures Development Support Analysis of Ozone Transport Commission Model Rules," March 31, 2001.



in the **Federal Register** on May 26, 2005 (70 FR 30367).

b. *Chapter 151 AIM coatings rule:* Chapter 151 establishes limits for emissions of VOCs from 51 AIM coating categories. Compliance with the rule will be required as of January 1, 2006, and Maine DEP expects it to produce 0.99 tpsd in emission reductions beyond the reductions already achieved by the federal program. However, Maine DEP will need to adjust the credit claimed for AIM reductions downward to reflect recent revisions to its Chapter 151 rule. Specifically, the proposal contains a new, less stringent, emission limit for interior wood clear and semitransparent stains. The proposal also includes a less stringent 2006 emission limit for varnishes (although by 2011 varnishes are required to meet the same limit as in the existing rule). These revisions will impact the emission reductions Maine achieves from the implementation of Chapter 151 by 2007. However, given that Maine's 5% plan currently includes 0.72 tpsd of surplus credits, it appears that even with these adjustments, Maine will be able to meet its 5% plan target.

Additionally, in the August 31, 2005 **Federal Register** (70 FR 51694) EPA published a notice soliciting comments, data and information with regard to calculation of emission reductions from AIM coating rules. Therefore, future adjustments may also need to be made to Maine's credit claim from this rule. However, EPA has analyzed the emission credit claims made by states that have adopted AIM rules based on the OTC's model rule, and determined a 35% post federal AIM rule reduction factor is currently the most appropriate reduction factor to use. Maine DEP used the 35% post federal rule reduction factor in its AIM credit calculation. EPA has not yet approved this rule into the state's SIP. Therefore, emission reduction credit will only be granted to Maine for reductions from this rule if EPA approves it into the state's SIP on or before the date final action is taken on Maine's 5% increment of progress plan. On December 15, 2005, EPA published a notice of proposed rulemaking (70 FR 74259) that proposes approval of Maine's AIM coatings rule. The comment period for that proposed rule ends January 17, 2006.

c. *Chapter 152 consumer and commercial products rule:* This regulation limits emissions of VOC from consumer products by establishing emission limits for consumer product source categories. Compliance with the rule was required by May 1, 2005, and Maine DEP expects it to produce 0.72 tpsd in emission reductions in the three

county area beyond the reductions already achieved by the federal program. EPA approved this rule into the state's SIP in a final rule published in the **Federal Register** on October 24, 2005 (70 FR 61382).

d. *Chapter 153 mobile equipment repair and refinishing rule:* This regulation limits emissions of VOCs from mobile equipment refinishing and repair facilities by limiting the VOC content of coatings, by requiring the use of high efficiency coating application systems, and through work practice standards. Maine used a control factor of 38% as recommended in the previously mentioned report by E.H. Pechan. This 38% emission reduction is above and beyond the emission reductions achieved from this sector by an earlier federal rule. Facilities were required to comply with the rule by January 1, 2005, and Maine DEP expects it to produce 0.19 tpsd in emission reductions in the three county area. EPA approved this rule into the state's SIP in a final rule published in the **Federal Register** on May 26, 2005 (70 FR 30367).

#### D. Transportation Conformity Budgets

Maine's 5% increment of progress plan contains projected, controlled emission levels for on-road mobile sources for 2007. Although the 15% plan also contains projected, controlled emission levels, they are for 2005, and are geographically matched to the full county Portland one-hour nonattainment area. EPA revoked the one-hour ozone standard on June 15, 2005. Therefore, the on-road mobile source VOC and NO<sub>x</sub> emissions estimates for 2007 contained in Maine's 5% increment of progress plan will establish a transportation conformity budget, and the 2005 on-road mobile estimates in the 15% plan will not.

Although Maine DEP prepared its base year and future year inventories at the full county level, the state included in its 5% plan a 2007 emission estimate for on-road mobile sources for the exact geographic area that comprises the Portland 8-hour nonattainment area. These 2007 emission estimates establish transportation conformity budgets, and they are as follows: For VOCs, 20.115 tpsd, and for NO<sub>x</sub>, 39.893 tpsd.

In the August 30, 2005 **Federal Register** (70 FR 51353) EPA published a notice of adequacy determination for the above transportation conformity budgets. These budgets were calculated in accordance with standard EPA methods, and should be approved into the state's SIP along with the 5% increment of progress plan.

### III. Proposed Action

EPA's review of this material indicates that Maine has prepared these emission inventories, emission reduction plans, and transportation conformity budgets in accordance with EPA methods and guidance. EPA is proposing to approve Maine's 15% rate of progress plan and associated revised 1990 inventory, and also proposing approval of the state's 5% increment of progress plan, 2002 base year inventory, and transportation conformity budgets for 2007 for VOC and NO<sub>x</sub> for the Portland 8-hour ozone nonattainment area as a revision to the state's SIP. These SIP revisions were submitted to EPA on June 9, 13, and 14, 2005. EPA is soliciting public comments on the issues discussed in this notice or on other relevant matters. These comments will be considered before EPA takes final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to the EPA New England Regional Office listed in the ADDRESSES section of this action, or by submitting comments electronically, by mail, or through hand delivery/courier following the directions in the SUPPLEMENTARY INFORMATION, 1. General Information section of this action.

### IV. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001). This action merely approves state law as meeting federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

This rule also does not have tribal implications because it will not have a substantial direct effect on one or more



Indian tribes, 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 by Executive Order 13175 (65 FR 67249, November 9, 2000). This action also does not have federalism implications because it does 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 (64 FR 43255, August 10, 1999), because it merely approves a state rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*)

#### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Nitrogen dioxide, Ozone, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: December 21, 2005.

**Robert W. Varney,**  
Regional Administrator, EPA New England.  
[FR Doc. E5-8221 Filed 1-4-06; 8:45 am]

**BILLING CODE 6560-50-P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R05-OAR-2005-MI-0001; FRL-8019-4]

### Approval and Promulgation of Air Quality Implementation Plans; Michigan

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to approve Michigan's request for a revision to its Clean Air Act State Implementation Plan which provides for exemptions for major sources of nitrogen oxides (NO<sub>x</sub>) from the Reasonably Available Control Technology (RACT) and New Source Review (NSR) requirements for NO<sub>x</sub>. The review is for sources in eleven counties located in six of Michigan's eight-hour ozone non-attainment areas. Section 182(f) of the Clean Air Act allows this exemption for areas where additional reductions in NO<sub>x</sub> will not contribute to attainment of the National Ambient Air Quality Standard (NAAQS) for ozone. We are proposing approval of the exemption for each of the six non-attainment areas.

**DATES:** Comments must be received on or before February 6, 2006.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R05-OAR-2005-MI-0001, by one of the following methods:

- *www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail:* mooney.john@epa.gov.
- *Fax:* (312) 886-5824.
- *Mail:* John M. Mooney, Chief, Criteria Pollutant Section, Air Programs Branch, (AR-18), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.
- *Hand Delivery:* John M. Mooney, Chief, Criteria Pollutant Section, Air Programs Branch, (AR-18), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office's normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office's official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m. excluding Federal holidays.

**Instructions:** Direct your comments to Docket ID No. EPA-R05-OAR-2005-MI-0001. EPA's policy is that all comments received will be included in the public docket without change and

may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov) your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. 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. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional instructions on submitting comments, go to Section I of the **SUPPLEMENTARY INFORMATION** section of this document.

**Docket:** All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. We recommend that you telephone Matt Rau, Environmental Engineer, at (312) 886-6524 before visiting the Region 5 office.

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. What Should I Consider as I Prepare My Comments for EPA?

- II. What Is EPA's Analysis of the Supporting Materials?
- III. What Are the Environmental Effects of These Actions?
- IV. What Action Is EPA Taking Today?
- V. Statutory and Executive Order Reviews

### I. What Should I Consider as I Prepare My Comments for EPA?

#### A. Submitting CBI

Do not submit this information to EPA through [www.regulations.gov](http://www.regulations.gov) or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, 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 claimed as CBI. In addition to one complete version of the comment that includes 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. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

#### B. Tips for Preparing Your Comments

When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

### II. What Is EPA's Analysis of the Supporting Materials?

EPA's document, "Guidance on Limiting Nitrogen Oxides Requirements Related to 8-Hour Ozone Implementation" gives the requirements for demonstrating that further NO<sub>x</sub> reduction in an ozone non-attainment area will not contribute to ozone attainment. The guidance provides that monitoring data showing three consecutive years of ozone levels below

the NAAQS in areas in which the state has not implemented NO<sub>x</sub> controls is adequate to demonstrate that additional NO<sub>x</sub> reductions will not aid in attainment. As described in the guidance document, approval of the SIP revision is granted on a contingent basis. Michigan must continue to monitor the ozone levels in the areas. If finalized, each of the six areas will receive its own exemption. If an area violates the 8-hour ozone standard, as defined at 62 FR 38855, EPA will remove the exemption for that area and publish a **Federal Register** notice. Upon removal of its waiver, an area will once again be subject to NO<sub>x</sub> control requirements under section 182(f) of the Clean Air Act.

Michigan submitted the 2002-04 monitoring data for the six areas. The eight-hour ozone concentrations for these areas were all below the National Ambient Air Quality Standard for ozone for the entire period covered by the monitoring. Michigan has not implemented the NO<sub>x</sub> controls required under section 182(f) in the areas yet. So, adding NO<sub>x</sub> controls in these areas would not help the areas attain the 8-hour ozone standard.

### III. What Are the Environmental Effects of These Actions?

Ozone decreases lung function, causing chest pain and coughing. It can aggravate asthma, reduce lung capacity, and increase risk of respiratory diseases like pneumonia and bronchitis. Children playing outside and healthy adults who work or exercise outside also may be harmed by elevated ozone levels. Ozone also reduces vegetation growth in economically important agricultural crops and wild plants.

Nitrogen oxides and volatile organic compounds (VOC) are precursors in ozone formation. The photochemical reactions that form ozone are complex. Reducing NO<sub>x</sub> (NO and NO<sub>2</sub>) emissions will not always reduce ozone levels. When the ratio of NO to VOC emissions is high, the NO will react with ozone (O<sub>3</sub>) to form NO<sub>2</sub> and oxygen (O<sub>2</sub>). In this environment, the NO<sub>2</sub> will react with hydroxyl (OH) radicals instead of forming ozone. Therefore, a decrease in NO<sub>x</sub> emissions would cause an increase in ozone formation when these conditions exist. This effect is usually localized.

The section 182(f) exemptions should not interfere with attaining the ozone standard in the six Michigan ozone non-attainment areas. The six areas have three consecutive years of monitoring data showing the areas in attainment of the 8-hour ozone standard. The section 182(f) NO<sub>x</sub> provisions have not been

implemented in these areas. It is clear that Michigan has demonstrated that additional NO<sub>x</sub> reductions would not contribute to attainment of the ozone standard in the six areas.

Ozone levels are expected to remain below the standard which will protect human health. However, if quality assured monitoring data shows that a violation of the ozone standard has occurred in one of the areas, the exemption for that area will be removed and additional control measures will be enacted. Upon receipt of quality-assured data demonstrating a violation of the ozone standard, EPA will notify the State and the public that the exemption no longer applies by publishing a rule in the **Federal Register**. The section 182(f) exemption will no longer apply as of the effective date of EPA's rule. Michigan will be required to submit the RACT SIP for the violating area by September 2006 or by the date specified in the withdrawal notice for violations after the SIP deadline. Major sources of NO<sub>x</sub> will then be expected to comply with the part 182(f) requirements no later than the first ozone season which occurs 30 months after the SIP due date. If EPA redesignates the area to attainment prior to the violation, the NO<sub>x</sub> sources will be required to follow the maintenance plan provisions instead of the part 182(f) requirements.

### IV. What Action Is EPA Taking Today?

EPA is proposing to approve a Michigan SIP revision request for exemptions from the RACT and NSR NO<sub>x</sub> requirements for major NO<sub>x</sub> sources in six of the state's eight-hour ozone non-attainment areas. Section 182(f) of the Clean Air Act allows this exemption for areas where the state demonstrates that additional reductions in NO<sub>x</sub> will not contribute to attainment of the ozone standard. Monitoring data shows the ozone levels are now below the standard in the six areas without utilizing NO<sub>x</sub> controls. If made final, these exemptions from the NO<sub>x</sub> requirements in section 182(f) will be made on a contingent basis. The state used monitoring data to demonstrate it meets the requirements for the exemption. If an area's monitored level of ozone violates the standard in the future, its exemption will be removed. If quality assured monitoring data indicates that an area has violated the standard, the EPA will notify the State that the exemption no longer applies in that area and will inform the public with a **Federal Register** rule. The section 182(f) exemption will not apply as of the effective date of EPA's rule. Michigan will be required to submit the RACT SIP for the violating area by

September 2006 or by the date specified in the withdrawal notice for violations after the SIP deadline. Major sources of NO<sub>x</sub> will then be expected to comply with the part 182(f) requirements as expeditiously as practical but no later than the first ozone season which occurs 30 months after the SIP due date. In an area designated as attainment prior to a violation, the NO<sub>x</sub> sources will follow the maintenance plan requirements.

#### V. Statutory and Executive Order Reviews

##### *Executive Order 12866; Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and, therefore, is not subject to review by the Office of Management and Budget.

##### *Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

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

##### *Regulatory Flexibility Act*

This proposed action merely proposes to approve state law as meeting federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601, et seq.).

##### *Unfunded Mandates Reform Act*

Because this rule proposes to approve pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

##### *Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This proposed rule also does not have tribal implications because it will not have a substantial direct effect on one or

more Indian tribes, 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 by Executive Order 13175 (59 FR 22951, November 9, 2000).

##### *Executive Order 13132: Federalism*

This action also does not have federalism implications because it does 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 (64 FR 43255, August 10, 1999). This action merely proposes to approve a state rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act.

##### *Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

This proposed rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant.

##### *National Technology Transfer Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTA), 15 U.S.C. 272, requires Federal agencies to use technical standards that are developed or adopted by voluntary consensus to carry out policy objectives, so long as such standards are not inconsistent with applicable law or otherwise impracticable. In reviewing program submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Act. Absent a prior existing requirement for the state to use voluntary consensus standards, EPA has no authority to disapprove a program submission for failure to use such standards, and it would thus be inconsistent with applicable law for EPA to use voluntary consensus standards in place of a program submission that otherwise satisfies the provisions of the Act. Therefore, the requirements of section 12(d) of the NTTA do not apply.

##### *Civil Justice Reform*

As required by section 3 of Executive Order 12988 (61 FR 4729, February 7,

1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct.

##### *Governmental Interference With Constitutionally Protected Property Rights*

EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order, and has determined that the rule's requirements do not constitute a taking.

##### *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. The 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).

##### *Paperwork Reduction Act*

This proposed rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.).

##### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements.

Dated: December 27, 2005.

**Bharat Mathur,**

*Acting Regional Administrator, Region 5.*  
[FR Doc. E5-8316 Filed 1-4-06; 8:45 am]

BILLING CODE 6560-50-P

## Notices

Federal Register

Vol. 71, No. 3

Thursday, January 5, 2006

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

#### Forest Service

#### Alpine County, CA, Resource Advisory Committee (RAC)

**AGENCY:** Forest Service, USDA.

**ACTION:** Notice of meeting.

**SUMMARY:** Pursuant to the authorities in the Federal Advisory Committees Act (Pub. L. 92-463) and under the Secure Rural Schools and Community Self-Determination Act of 2000 (Pub. L. 106-393) the Alpine County Resource Advisory Committee (RAC) will meet on Thursday, February 9, at 18:00 at the Diamond Valley School for business meetings. The purpose of the meeting is to discuss issues relating to implementing the Secure Rural Schools and Community Self-Determination Act of 2000 (Payment to States) and expenditure of Title II funds. The meetings are open to the public.  
**DATES:** Thursday, February 9, 2006 at 18:00.

**ADDRESSES:** The meeting will be held at the Diamond Valley School, 35 Hawkside Drive, Markleeville, California 96120. Send written comments to Franklin Pemberton, Alpine County RAC coordinator, c/o USDA Forest Service, Humboldt-Toiyabe N.F., Carson Ranger District, 1536 So. Carson Street, Carson City, NV 89701.

**FOR FURTHER INFORMATION CONTACT:** Alpine Co. RAC Coordinator, Franklin Pemberton at (775) 884-8150; or Gary Schiff, Carson District Ranger and Designated Federal Officer, at (775) 884-8100, or electronically to [fpemberton@fs.fed.us](mailto:fpemberton@fs.fed.us).

**SUPPLEMENTARY INFORMATION:** The Meeting is open to the public. Council discussion is limited to Forest Service staff and Council members. However, persons who wish to bring urban and community forestry matters to the

attention of the council may file written statements with the Council staff before and after the meeting.

Dated: December 27, 2005.

**Robert L. Vaught,**

*Forest Supervisor, Humboldt-Toiyabe N.F.*

#### Agenda

##### RAC Meeting

Diamond Valley School, 2/09/2006 at 6 p.m.

##### Old Business

I. No old business.

##### New Business

- I. Discuss approval and funding process.
- II. Discuss, rank, select and approve project proposals for FY 06.
- III. Review monitoring requirements.
- IV. Schedule monitoring field trip.
- V. Schedule next meeting.

##### Adjourn

[FR Doc. 06-61 Filed 1-4-06; 8:45 am]

**BILLING CODE 3410-11-M**

### DEPARTMENT OF COMMERCE

#### International Trade Administration

[A-570-832]

#### Pure Magnesium from the People's Republic of China; Notice of Final Results of Expedited Sunset Review of Antidumping Duty Order

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**SUMMARY:** On September 1, 2005, the Department of Commerce ("the Department") initiated the sunset review of the antidumping duty order on pure magnesium from the People's Republic of China ("China"). See *Initiation of Five-Year ("Sunset") Reviews*, 70 FR 52074 (September 1, 2005). On the basis of a notice of intent to participate, and an adequate substantive response filed on behalf of the domestic interested party, and a lack of response from respondent interested parties, the Department conducted an expedited (120-day) sunset review. As a result of this sunset review, the Department finds that revocation of the antidumping duty order would likely lead to the continuation or recurrence of dumping. The dumping margin is

identified in the *Final Results of Review* section of this notice.

**EFFECTIVE DATE:** January 5, 2006.

#### FOR FURTHER INFORMATION CONTACT:

Hilary Sadler, Esq. or Maureen Flannery, AD/CVD Operations, International Trade Administration, U.S. Department of Commerce, 14th Street & Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482-4340 or (202) 482-3020, respectively.

#### SUPPLEMENTARY INFORMATION:

##### Background

On September 1, 2005, the Department published the notice of initiation of the sunset review of the antidumping duty order on magnesium from China pursuant to section 751(c) of the Tariff Act of 1930, as amended ("the Act"). See *Initiation of Five-Year ("Sunset") Reviews*, 70 FR 52074 (September 1, 2005). On September 16, 2005, the Department received a notice of intent to participate from US Magnesium, LLC, the domestic interested party, within the deadline specified in section 351.218(d)(1)(i) of the Department's regulations. The domestic interested party claimed interested party status under section 771(9)(C) of the Act, as a manufacturer, producer, or wholesaler in the United States of a domestic like product. On October 3, 2005, the Department received a complete substantive response from the domestic interested party within the deadline specified in section 351.218(d)(3)(i) of the Department's regulations. The Department did not receive a response from any respondent interested party to this proceeding. As a result, pursuant to section 751(c)(3)(B) of the Act and section 351.218(e)(1)(ii)(C)(2) of the Department's regulations, the Department conducted an expedited review of this order.

##### Scope of the Order

The product covered by this review is pure primary magnesium regardless of chemistry, form or size, unless expressly excluded from the scope of this order. Primary magnesium is a metal or alloy containing by weight primarily the element magnesium and produced by decomposing raw materials into magnesium metal. Pure primary magnesium is used primarily as a chemical in the aluminum alloying,

desulfurization, and chemical reduction industries. In addition, pure primary magnesium is used as an input in producing magnesium alloy. Pure primary magnesium encompasses products (including, but not limited to, butt-ends, stubs, crowns and crystals) with the following primary magnesium contents: (1) Products that contain at least 99.95 percent primary magnesium, by weight (generally referred to as "ultra-pure" magnesium); (2) Products that contain less than 99.95 percent but not less than 99.8 percent primary magnesium, by weight (generally referred to as "pure" magnesium); and (3) Products (generally referred to as "off-specification pure" magnesium) that contain 50 percent or greater, but less than 99.8 percent primary magnesium, by weight, and that do not conform to ASTM specifications for alloy magnesium. "Off-specification pure" magnesium is pure primary magnesium containing magnesium scrap, secondary magnesium, oxidized magnesium or impurities (whether or not intentionally added) that cause the primary magnesium content to fall below 99.8 percent by weight. It generally does not contain, individually or in combination, 1.5 percent or more, by weight, of the following alloying elements: aluminum, manganese, zinc, silicon, thorium, zirconium and rare earths.

Since the antidumping duty order was issued, we have clarified that the scope of the original order includes, but is not limited to, butt ends, stubs, crowns and crystals. See May 22, 1997, instructions to U.S. Customs and November 14, 1997, Final Scope Ruling of Antidumping Duty Order on Pure Magnesium from China.

Excluded from the scope of this order are alloy primary magnesium (that meets specifications for alloy magnesium), primary magnesium anodes, granular primary magnesium (including turnings, chips and powder), having a maximum physical dimension (*i.e.*, length or diameter) of one inch or less, secondary magnesium (which has pure primary magnesium content of less than 50 percent by weight), and remelted magnesium whose pure primary magnesium content is less than 50 percent by weight. Pure magnesium products covered by this order are currently classifiable under the Harmonized Tariff Schedule of the United States ("HTSUS") subheadings 8104.11.00, 8104.19.00, 8104.20.00, 8104.30.00, 8104.90.00, 3824.90.11, 3824.90.19 and 9817.00.90. Although the HTSUS subheadings are provided for convenience and customs purposes,

our written description of the scope is dispositive.

#### Analysis of Comments Received

All issues raised in this review are addressed in the "Issues and Decision Memorandum" ("Decision Memo") from Stephen J. Claeys, Deputy Assistant Secretary for Import Administration, to Joseph A. Spetrini, Acting Assistant Secretary for Import Administration, dated December 29, 2005, which is hereby adopted by this notice. The issues discussed in the Decision Memo include the likelihood of continuation or recurrence of dumping and the magnitude of the margins likely to prevail if the order were revoked. Interested parties can find a complete discussion of all issues raised in this review and the corresponding recommendations in this public memorandum which is on file in room B-099 of the main Commerce building.

In addition, a complete version of the Decision Memo can be accessed directly on the Web at <http://ia.ita.doc.gov/frn/>. The paper copy and electronic version of the Decision Memo are identical in content.

#### Final Results of Review

We determine that revocation of the antidumping duty order on pure magnesium from China would be likely to lead to continuation or recurrence of dumping at the following weighted-average percentage margin:

Manufacturers/ Exporters/Producers	Weighted Average Margin (percent)
China-wide Rate .....	108.26

This notice also serves as the only reminder to parties subject to administrative protective order ("APO") of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with section 351.305 of the Department's regulations. Timely notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

We are issuing and publishing these results and notice in accordance with sections 751(c), 752, and 777(i)(1) of the Act.

Dated: December 29, 2005.

**Stephen J. Claeys,**

Acting Assistant Secretary for Import Administration.

[FR Doc. E5-8327 Filed 1-4-06; 8:45 am]

BILLING CODE 3510-DS-S

## DEPARTMENT OF COMMERCE

### International Trade Administration

[A-821-801 and A-823-801]

#### Notice of Continuation of Antidumping Duty Orders: Solid Urea from the Russian Federation and Ukraine

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**SUMMARY:** As a result of the determinations by the Department of Commerce ("Department") and the International Trade Commission ("Commission") that revocation of these antidumping duty orders would be likely to lead to continuation or recurrence of dumping and material injury to an industry in the United States, pursuant to section 751(c) of the Tariff Act of 1930, as amended ("the Act"), the Department hereby orders the continuation of the antidumping duty orders on solid urea from the Russian Federation ("Russia") and Ukraine. The Department is publishing notice of the continuation of these antidumping duty orders.

**EFFECTIVE DATE:** January 5, 2006.

#### FOR FURTHER INFORMATION CONTACT:

Hilary E. Sadler, Esq. or Maureen Flannery, Office 8, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482-4340 or 482-3020, respectively.

#### SUPPLEMENTARY INFORMATION:

##### Background

On October 1, 2004, the Department initiated and the Commission instituted sunset reviews of the antidumping duty orders on solid urea from Russia and Ukraine pursuant to section 751(c) of the Act.<sup>1</sup> As a result of its reviews, the Department found that revocation of the antidumping duty orders would be likely to lead to continuation or recurrence of dumping and notified the Commission of the magnitude of the margins likely to prevail were the orders to be revoked.<sup>2</sup>

On November 17, 2005, the Commission determined, pursuant to section 751(c) of the Act, that revocation of the antidumping duty orders on solid urea from Russia and Ukraine would be

<sup>1</sup> See *Initiation of Five-Year ("Sunset") Reviews*, 69 FR 58890 (October 1, 2004).

<sup>2</sup> See *Solid Urea from Ukraine; Final Results of the Expedited Sunset Review of the Antidumping Duty Order*, 70 FR 24394 (May 9, 2005) and *Solid Urea from the Russian Federation; Final Results of the Expedited Sunset Review of the Antidumping Duty Order*, 70 FR 24528 (May 10, 2005).



likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. See *Solid Urea from Russia and Ukraine*, 70 FR 74846 (December 16, 2005), USITC Publication 3821 (December 2005) (Investigations Nos. 731-TA-340-E & H (Second Review)).

#### Scope of the Orders

The merchandise covered by these orders is solid urea, a high-nitrogen content fertilizer which is produced by reacting ammonia with carbon dioxide. The product is currently classified under the Harmonized Tariff Schedules of the United States Annotated ("HTS") item 3102.10.00.00. During previous reviews such merchandise was classified under item number 480.3000 of the Tariff Schedules of the United States. The HTS item number is provided for convenience and customs purposes. The written description remains dispositive as to the scope of the product coverage.

#### Determination

As a result of the determinations by the Department and the Commission that revocation of these antidumping duty orders would be likely to lead to continuation or recurrence of dumping and material injury to an industry in the United States, pursuant to section 751(d)(2) of the Act, the Department hereby orders the continuation of the antidumping duty orders on solid urea from Russia and Ukraine.

The Department will instruct U.S. Customs and Border Protection to continue to collect antidumping duty deposits at the rates in effect at the time of entry for all imports of subject merchandise. The effective date of the continuation for these orders is the date

of publication in the *Federal Register* of this Notice of Continuation. Pursuant to section 751(c)(2) of the Act, the Department intends to initiate the next five-year review of these antidumping orders not later than December 2010.

These sunset reviews and this Notice of Continuation are in accordance with section 751(c) of the Act and published pursuant to 777(i) of the Act.

Dated: December 23, 2005.

Stephen J. Claeys,

Acting Assistant Secretary for Import Administration.

[FR Doc. E5-8326 Filed 1-4-06; 8:45 am]

BILLING CODE 3510-DS-5

## DEPARTMENT OF COMMERCE

### International Trade Administration

#### Annual Listing of Foreign Government Subsidies on Articles of Cheese Subject to an In-Quota Rate of Duty

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: January 5, 2006.

FOR FURTHER INFORMATION CONTACT: Tipten Troidl or Eric Greynolds, AD/CVD Operations, Office 3, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Ave., N.W., Washington, D.C. 20230, telephone: (202) 482-1767 or (202) 482-6071.

SUPPLEMENTARY INFORMATION: Section 702 of the Trade Agreements Act of 1979 (as amended) ("the Act") requires the Department of Commerce (the "Department") to determine, in consultation with the Secretary of Agriculture, whether any foreign

government is providing a subsidy with respect to any article of cheese subject to an in-quota rate of duty, as defined in section 702(h) of the Act, and to publish an annual list and quarterly updates of the type and amount of those subsidies. We hereby provide the Department's annual list of subsidies on articles of cheese that were imported during the period October 1, 2004, through September 30, 2005.

The Department has developed, in consultation with the Secretary of Agriculture, information on subsidies (as defined in section 702(h) of the Act) being provided either directly or indirectly by foreign governments on articles of cheese subject to an in-quota rate of duty. The appendix to this notice lists the country, the subsidy program or programs, and the gross and net amounts of each subsidy for which information is currently available. The Department will incorporate additional programs which are found to constitute subsidies, and additional information on the subsidy programs listed, as the information is developed.

The Department encourages any person having information on foreign government subsidy programs which benefit articles of cheese subject to an in-quota rate of duty to submit such information in writing to the Assistant Secretary for Import Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230.

This determination and notice are in accordance with section 702(a) of the Act.

Dated: December 29, 2005.

Stephen J. Claeys,

Acting Assistant Secretary for Import Administration.

## APPENDIX

### SUBSIDY PROGRAMS ON CHEESE SUBJECT TO AN IN-QUOTA RATE OF DUTY

Country	Program(s)	Gross <sup>1</sup> Subsidy (\$/lb)	Net <sup>2</sup> Subsidy (\$/lb)
Austria .....	European Union Restitution Payments	\$ 0.00	\$ 0.00
Belgium .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Canada .....	Export Assistance on Certain Types of Cheese	\$ 0.29	\$ 0.29
Denmark .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Finland .....	EU Restitution Payments	\$ 0.00	\$ 0.00
France .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Germany .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Greece .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Ireland .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Italy .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Luxembourg .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Netherlands .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Norway .....	Indirect (Milk) Subsidy	\$ 0.00	\$ 0.00
.....	Consumer Subsidy	\$ 0.00	\$ 0.00
.....	Total	\$ 0.00	\$ 0.00
Portugal .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Spain .....	EU Restitution Payments	\$ 0.00	\$ 0.00
Switzerland .....	Deficiency Payments	\$ 0.00	\$ 0.00

APPENDIX—Continued  
 SUBSIDY PROGRAMS ON CHEESE SUBJECT TO AN IN-QUOTA RATE OF DUTY

Country	Program(s)	Gross <sup>1</sup> Subsidy (\$/lb)	Net <sup>2</sup> Subsidy (\$/lb)
U.K. ....	EU Restitution Payments	\$ 0.00	\$ 0.00

<sup>1</sup> Defined in 19 U.S.C. 1677(5).<sup>2</sup> Defined in 19 U.S.C. 1677(6).

[FR Doc. E5-8330 Filed 1-4-06; 8:45 am]

BILLING CODE 3510-DS-S

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****[I.D. 122805A]****Mid-Atlantic Fishery Management Council (MAFMC); Public Meetings**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of public meetings.

**SUMMARY:** The Mid-Atlantic Fishery Management Council (Council), its Squid, Mackerel, Butterfish Committee, Bycatch Committee, Magnuson-Stevens Act Reauthorization Committee and its Executive Committee will hold public meetings.

**DATES:** The meetings will be held from Tuesday, January 17, 2006, through Thursday, January 19, 2006. See **SUPPLEMENTARY INFORMATION** for a meeting agenda.

**ADDRESSES:** This meeting will be held at the Sheraton Annapolis Hotel, 173 Jennifer Rd, Annapolis, MD; telephone 410-266-3131.

*Council address:* Mid-Atlantic Fishery Management Council, 300 S. New Street, Dover, DE 19904, telephone 302-674-2331.

**FOR FURTHER INFORMATION CONTACT:** Daniel T. Furlong, Executive Director, Mid-Atlantic Fishery Management Council; telephone: 302-674-2331, ext. 19.

**SUPPLEMENTARY INFORMATION:****Meeting Agenda***Tuesday, January 17, 2005*

The Squid, Mackerel, Butterfish Committee will meet from 10 a.m.-12:30 p.m. The Committee will discuss and adopt alternatives for Amendment 10 and discuss potential impacts of New England Council's Herring Amendment 1 on Mid-Atlantic vessels.

The Bycatch Committee will meet from 1:30-2:30 p.m. The Committee will review the Magnuson-Stevens Act

mandate regarding standardized bycatch reporting methodology and discuss NMFS standardized bycatch reporting methodology initiative.

The Magnuson-Stevens Act Reauthorization Committee will meet from 2:30-3:30. The Committee will discuss different versions of the Magnuson-Stevens Act Reauthorization (Administration, House, and Senate Bills) and review Council's recommended Magnuson-Stevens Act Reauthorization priorities.

The Ecosystems Committee will meet from 3:30-5 pm. The Committee will develop a draft final report.

*Wednesday, January 18, 2005*

The Council will convene at 8 a.m., at which time, NMFS' Northeast Fisheries Science Center will give a presentation on Ecosystems Capabilities. The Council will receive a report on the outcome of the 42nd SAW/SARC process from 9-10 a.m. A report will be given regarding the outcome of the 42nd SAW/SARC process for Atlantic Mackerel, Illex Squid, and Silver Hake (Whiting). Regular Council business will be conducted from 10 a.m. until noon. From 1-4 p.m. the Council will address Framework 6 to the Summer Flounder, Scup, and Black Sea Bass FMP and Amendment 15 Scoping Document. The Executive Committee will meet from 4-5 p.m.

*Thursday, January 19, 2005*

On Thursday, January 19, the Highly Migratory Species (HMS) Committee will meet from 8-9 a.m. to develop Council comments on the amendment to the HMS/Billfish Fishery Management Plan. The Council will convene at 9 a.m. to address Framework 3 to the Joint Monkfish FMP. The Council will receive a presentation by a U.S. Navy official on undersea warfare training ranges at 10 a.m. At 11 a.m. until adjournment, the Council will receive committee reports and address any continuing or new business. The Council will also conduct its regular business session to approve December 2005 minutes and receive reports. Meeting 1 of Framework 6 to Summer Flounder, Scup, and Black Sea Bass FMP will be held to review options regarding use of conservation

equivalency by multi-state sub regions. Issues to be included in the Scoping Document to Amendment 15 to the Summer Flounder, Scup, and Black Sea Bass FMP will also be discussed. The Highly Migratory Species (HMS) Committee will develop comments on the proposed amendment to the consolidated HMS Fishery Management Plan. The Council will review and adopt proposed changes regarding utilization of DAS (days-at-sea) to Framework 3 of the Joint Monkfish FMP. A U.S. Navy official will give a presentation on Undersea Warfare Training Ranges. The presentation will be followed by committee reports and any continuing or new business.

Although non-emergency issues not contained in this agenda may come before the Council for discussion, these issues may not be the subject of formal Council action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final actions to address such emergencies.

**Special Accommodations**

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to M. Jan Saunders (302-674-2331 ext: 18) at least 5 days prior to the meeting date.

Dated: December 30, 2005.

**Tracey Thompson,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E5-8286 Filed 1-4-06; 8:45 am]

BILLING CODE 3510-22-S

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****[I.D. 121905B]****Atlantic Highly Migratory Species; Scientific Research Permit**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; request for a scientific research permit; request for comments.

**SUMMARY:** NMFS announces the receipt of a request for a scientific research permit (SRP) to track the survival and movement of highly migratory species (HMS) with satellite pop-up tags in the Atlantic Ocean, specifically the Charleston Bump and adjacent areas. NMFS invites comments from interested parties on this SRP request.

**DATES:** Written comments on the application for a scientific research permit must be received by 5 p.m. on January 26, 2006.

**ADDRESSES:** You may submit comments by any of the following methods:

- Email: [SF1.121905B@noaa.gov](mailto:SF1.121905B@noaa.gov). Include in the subject line the following identifier: I.D. 121905B.

- Mail: Margo Schulze-Haugen, Chief, Highly Migratory Species Management Division (F/SF1), NMFS, 1315 East-West Highway, Silver Spring, MD 20910. Please mark the outside of the envelope "Comments on SRP Application."

- Fax: (301)427-2593.

**FOR FURTHER INFORMATION CONTACT:**

Megan Caldwell, by phone: (301)713-2347; fax: (301)713-1917.

**SUPPLEMENTARY INFORMATION:** SRPs are requested and issued under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) and/or the Atlantic Tunas Convention Act (16 U.S.C. 971 *et seq.*). Regulations at 50 CFR 600.745 and 635.32 govern scientific research activity, exempted fishing, and exempted educational activity with respect to Atlantic HMS.

Since 2000, the South Carolina Department of Natural Resources (SC DNR) has requested the authorization of an SRP for the collection, tagging, and release of several HMS in the Charleston Bump area to monitor survival rates and movement patterns; the same request has been submitted for 2006. The proposed sampling would occur no further north than 30°00' N., 75°00' W. and no further south than 35°00' N. and 75°00' W., specifically focusing collection efforts in the Charleston Bump area. The research would be conducted from February through December 2006, during both the closed (February 1 to April 30) and open seasons. Operations would be conducted during the closed season to reduce gear conflicts. Additionally, for the past several years, this research typically coincided with the closure because the state-owned research vessel

is rigged for longline sampling in the first several months of the year.

Species likely to be tagged while conducting research in this area are swordfish (*Xiphias gladius*), blue marlin (*Makaira nigricans*), white marlin (*Tetrapturus albidus*), sailfish (*Istiophorus platypterus*), yellowfin tuna (*Thunnus albacares*), shortfin mako sharks (*Isurus oxyrinchus*), night sharks (*Carcharhinus signatus*), silky shark (*Carcharhinus falciformis*), dusky sharks (*Carcharhinus obscurus*), bigeye thresher sharks (*Alopias superciliosus*), and thresher sharks (*Alopias vulpinus*).

For each fish tagged, researchers will record species, estimated length and weight, GPS location, sea surface temperature, and any other data archived by the tag. Over the past three years, the average number of incidental mortalities that occurred during this research project were 14 swordfish, five scalloped hammerhead (*Sphyrna lewini*), four night sharks, two silky sharks, two yellowfin tuna, one blackfin tuna (*Thunnus atlanticus*), and one sandbar shark (*Carcharhinus plumbeus*). For all incidental mortalities, data would be collected, such as length, weight, DNA samples, contaminant samples, aging samples, and gonad samples.

Research would be conducted onboard a bonafide research vessel owned by the State of South Carolina. Collection of HMS would occur with pelagic longline gear divided into two sections with 60 16/0 non-offset circle hooks, totaling six nautical miles in length and 120 hooks. All hooks would be baited with whole finfish and/or squid. Green chemical light sticks may be attached to the gangions. The soak time would be no longer than four hours.

While sea turtle interactions are not anticipated and have not occurred in the past, sea turtle handling and release equipment and instructions will be onboard the vessel at all times while engaged in this research activity. Additionally, one individual of the research team is trained and experienced in sea turtle handling and release techniques.

In past years, this research was categorically excluded from the requirement to prepare either an Environmental Assessment or Environmental Impact Statement pursuant to the National Environmental Policy Act. This action was categorically excluded because it was of limited size and magnitude and would not have significant effects individually or cumulatively on the environment. As noted above, limited numbers of incidental mortalities occurred while

conducting this research over the past several years. All mortalities of sharks and swordfish were counted against the respective quota. Further, all fish tagged were to be released alive, with minimal or no post release mortality anticipated. If any animals died during the collection and/or tagging process, age structures (otoliths) and reproductive tissues were allowed to be sampled. If an SRP were to be issued, the number of incidental mortalities would be limited to ten animals per species. Any mortalities beyond this amount would need an additional authorization. This SRP, if issued, is issued, would involve the same research activity as in past years.

This research may benefit all interested parties by providing fishery managers with additional data necessary to consider the importance of the Charleston Bump ecosystem in the management and conservation of HMS in the Atlantic Ocean.

The regulations that would prohibit the proposed activities include requirements for permits and fees (50 CFR 635.4), size limits (50 CFR 635.20), gear operation and deployment (50 CFR 635.21), commercial quotas (50 CFR 635.27), and closures (50 CFR 635.28).

**Authority:** 16 U.S.C. 971 *et seq.* and 16 U.S.C. 1801 *et seq.*

Dated: December 29, 2005.

**Alan D. Risenhoover,**

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries.

[FR Doc. 06-96 Filed 1-4-06; 8:45 am]

**BILLING CODE 3510-22-S**

## CORPORATION FOR NATIONAL AND COMMUNITY SERVICE

### Proposed Information Collection; Comment Request

**AGENCY:** Corporation for National and Community Service.

**ACTION:** Notice.

**SUMMARY:** The Corporation for National and Community Service (hereinafter the "Corporation"), as part of its continuing effort to reduce paperwork and respondent burden, conducts a pre-clearance consultation program to provide the general public and federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95) (44 U.S.C. 3506(c)(2)(A)). This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial

resources) is minimized, collection instruments are clearly understood, and the impact of collection requirement on respondents can be properly assessed.

Currently, the Corporation is soliciting comments on its proposed "Application for the President's Higher Education Community Service Honor Roll" which will involve the collection of information from institutions of higher education concerning their community service-related activities. This information will provide the basis for a national honor roll and awards program intended to promote awareness of higher education community service efforts and to inspire expanded and more effective service efforts. In support of the Universities Rebuilding America Program (discussed below), this application and data collection include sections on the service activities of institutions of higher education, their students, faculty and staff, in response to the significant devastation caused by this last year's Atlantic and Gulf hurricanes. Copies of the information collection request can be obtained by contacting the office listed in the **ADDRESSES** section of this notice.

**DATES:** Written comments must be submitted to the individual and office listed in the **ADDRESSES** section by March 6, 2006.

**ADDRESSES:** You may submit comments, identified by the title of the information collection activity, by any of the following methods:

(1) By mail sent to: Corporation for National and Community Service, Learn and Serve America; Attention: Amy Cohen, Director, Room 9603; 1201 New York Avenue, NW., Washington, DC 20525. Please note that because we are experiencing significant delays in receiving U.S. Mail, you may wish to consider alternative mail services.

(2) By hand delivery or by courier to: the Corporation's mailroom at Room 8100 at the mail address given in paragraph (1) above, between 9 a.m. and 4 p.m. Monday through Friday, except Federal holidays.

(3) By fax to: (202) 606-3477, Attention: Amy Cohen.

(4) Electronically through the Corporation's e-mail address system: [acohen@cns.gov](mailto:acohen@cns.gov).

**FOR FURTHER INFORMATION CONTACT:** Amy Cohen, (202) 606-6927, or by e-mail at [acohen@cns.gov](mailto:acohen@cns.gov).

**SUPPLEMENTARY INFORMATION:** The Corporation is particularly interested in comments that:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Corporation, including

whether the information will have practical utility;

- Evaluate 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;
- Propose ways to enhance the quality, utility, and clarity of the information to be collected; and
- Propose ways to minimize the burden of the collection of information on those who are expected to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology (e.g., permitting electronic submissions of responses).

**Background:** The Corporation is the lead Federal agency for the coordination and support of voluntary national and community service by citizens and non-profit agencies.

Recognizing that community service and civic engagement are among the historic missions of most colleges and universities, the Corporation's Board of Directors recently identified Strategic Plan targets that include significant increases: in the number of college students performing community service, in the use of service-learning in higher education, and, in particular, in the number of students providing tutoring and other services to youth from disadvantaged circumstances designed to promote high school completion and college access. The President's Higher Education Community Service Honor Roll and Awards program will support these Strategic Plan efforts.

On November 1, 2005, the Secretary of Housing and Urban Development, Alphonso Jackson, and the Chief Executive Officer of the Corporation, David Eisner, announced the Universities Rebuilding America Partnership (URAP), an initiative offering funding and other resources to empower college and university students, faculty, and staff to lend their skills in rebuilding the Gulf Coast in response to the devastation caused by the hurricanes of 2005. As part of this initiative, the Corporation and the Department are creating a URAP Honor Roll and Awards Program to recognize higher education communities for their contributions to the recovery and rebuilding efforts.

**Current Action:** This annual application/ information collection from higher education institutions will provide information about student, faculty, staff, and institutional community service and civic engagement activities, including those in response to the recent hurricane

emergencies. The selection of colleges and universities for recognition under the URAP Honor Roll and Awards program, as well as under the broader President's Higher Education Community Service Honor Roll and Award program, will be based on information provided in this application and information collection. The initial deadline for institutions to submit applications for these programs is June 30, 2006. It is expected that a similar application/ information collection activity will be repeated annually, with a similar annual deadline.

Information collected from applicant higher education institutions will include: descriptions of specific student, staff, and faculty community service projects; data on the scope and impacts of service projects; estimates of the number of enrolled students participating in community service activities—both overall and in response to the hurricane-related disruptions of 2005; and information on institutional supports for service such as academic service-learning opportunities, community service coordination offices, and scholarships and other benefits in recognition of student service.

**Type of Review:** New.

**Agency:** Corporation for National and Community Service.

**Title:** Application for the President's Higher Education Community Service Honor Roll.

**OMB Number:** None.

**Agency Number:** None.

**Affected Public:** U.S. degree-granting colleges and universities.

**Total Respondents:** 4,236 higher education institutions.

**Frequency:** Annual.

**Average Time Per Response:** 1 hour.

**Estimated Total Burden Hours:** 4,236 hours.

**Total Burden Cost (capital/startup):** None.

**Total Burden Cost (operating/maintenance):** None.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

**Dated:** December 30, 2005.

**Elson Nash,**

*Associate Director for Project Management, Learn and Serve America.*

[FR Doc. E5-8312 Filed 1-4-06; 8:45 am]

**BILLING CODE 6050-SS-P**

**DEPARTMENT OF DEFENSE****Office of the Secretary****Privacy Act of 1974; System of Records****AGENCY:** Office of the Secretary, DoD.**ACTION:** Notice to add a system of records.**SUMMARY:** The Office of the Secretary of Defense proposes to add a system of records to its inventory of record systems subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended.**DATES:** The changes will be effective on February 6, 2006 unless comments are received that would result in a contrary determination.**ADDRESSES:** Send comments to OSD Privacy Act Coordinator, Records Management Section, Washington Headquarters Services, 1155 Defense Pentagon, Washington, DC 20301-1155.**FOR FURTHER INFORMATION CONTACT:** Ms. Juanita Irvin at (703) 696-4940.**SUPPLEMENTARY INFORMATION:** The Office of the Secretary of Defense notices for systems of records subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended, have been published in the *Federal Register* and are available from the address above.

The proposed systems reports, as required by 5 U.S.C. 552a(r) of the Privacy Act of 1974, as amended, were submitted on December 27, 2005, to the House Committee on Government Reform, the Senate Committee on Homeland Security and Governmental Affairs, and the Office of Management and Budget (OMB) pursuant to paragraph 4c of Appendix I to OMB Circular No. A-130, 'Federal Agency Responsibilities for Maintaining Records About Individuals,' dated February 8, 1996 (February 20, 1996, 61 FR 6427).

Dated: December 29, 2005.

L. M. Bynum,  
OSD Federal Register Liaison Officer,  
Department of Defense.

**DWHS E01 DoD****SYSTEM NAME:**

DoD Federal Docket Management System (DoDFDMS).

**SYSTEM LOCATION:**

Primary. U.S. Environmental Protection Agency, Research Triangle Park, NC 27711-0001.

**SECONDARY LOCATIONS:**

Washington Headquarters Services, Executive Services Directorate, Information Management Division, 1777

North Kent Street, Roslynn Plaza North, Suite 11000, Arlington, VA 22209-2133.

Washington Headquarters Services, Executive Services Directorate, Directive and Records Division, 17777 North Kent Street, Roslynn Plaza North, Suite 11100, Arlington, VA 22209-2133.

Defense Acquisition Regulation Systems, 241 18th Street, Suite 200A, Arlington, VA 22202-3409.

United States Army Corps of Engineers, 441 G Street, Northwest, 3G81, Washington, DC 20314-1000.

Records also may be located in a designated office of the DoD Component that is the proponent of the rulemaking or notice. The official mailing address for the Component can be obtained from the DoD FDMS system manager.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individuals who voluntarily provide personal contact information when submitting a public comment and/or supporting materials in response to a Department of Defense rulemaking document or notice.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Full name, postal address, email address, phone and fax number, name of the organization the individual represents, name of any individual serving as a representative for the individual submitting the comment, and the comments, as well as other supporting documentation, furnished by the individual.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Public Law 107-347, section 206(d), 44 U.S.C. 3501, Note; 5 U.S.C. 301, Departmental Regulation, and 553, Rule Making; and 10 U.S.C. Chapter 2, Secretary of Defense.

**PURPOSE(S):**

The purpose of this system of records is to permit the Department of Defense to identify individuals who have submitted comments in response to DoD rulemaking documents or notices so that communications or other actions, as appropriate and necessary, can be effected, such as a need to seek clarification of the comment, a direct response is warranted, and for such other needs as may be associated with the rulemaking or notice process.

Note: Identification is possible only if the individual voluntarily provides identifying information. If such information is not furnished, the submitted comments and/or supporting documentation cannot be linked to an individual.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act, these records or information contained therein may specifically be disclosed outside the DoD as a routine use pursuant to 552a(b)(3) as follows:

The DoD 'Blanket Routine Uses' set forth at the beginning of OSD's compilation of systems of records notices apply to this system.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:****STORAGE:**

Records are maintained on electronic storage media and paper.

**RETRIEVABILITY:**

Records are retrieved by the individual's name.

**SAFEGUARDS:**

Records are maintained in a secure, password protected electronic system that utilizes security hardware and software to include: multiple firewalls, active intruder detection, and role-based access controls. Paper records will be maintained in a controlled facility where physical entry is restricted by the use of locks, guards, or administrative procedures. Access to records is limited to those officials who require the records to perform their official duties consistent with the purpose for which the information was collected. All personnel whose official duties require access to the information are trained in the proper safeguarding and use of the information.

**RETENTION AND DISPOSAL:**

Disposition pending (until NARA approves retention and disposition schedule, treat records as permanent.)

**SYSTEM MANAGER(S) AND ADDRESS:**

Federal Docket Management System Office, 1160 Defense Pentagon, Washington, DC 20301-1160.

**NOTIFICATION PROCEDURE:**

Individuals seeking to determine whether this system of records contains information about themselves should address written inquiries to the Federal Docket Management System Office, 1160 Defense Pentagon, Washington, DC 20301-1160.

Requests should contain the full name, address, and telephone number.

Note: FDMS permits an individual, as well as a member of the public, to search the public comments received by the name of the



individual submitting the comment. Unless the individual submits the comment anonymously, a name search will result in the comment being displayed for view. If the comment is submitted electronically using the FDMS system, the viewed comment will not include the name of the submitter or any other identifying information about the individual except that which the submitter has opted to include as part of his or her general comments. However, a comment submitted in writing that has been scanned and uploaded into the FDMS system will display the submitter's identifying information that has been included as part of the written correspondence.

#### RECORD ACCESS PROCEDURES:

Individuals seeking access to records about themselves contained in this system of records should address a written request to the Federal Docket Management System Office, 1160 Defense Pentagon, Washington, DC 20301-1160.

Requests should contain the full name, address, and telephone number.

As appropriate, requests may be referred to the DoD Component responsible for the rulemaking or notice for processing.

**Note:** FDMS permits a member of the public to download any of the public comments received. If an individual has voluntarily furnished his or her name when submitting the comment, the individual, as well as the public, can view and download the comment by searching on the name of the individual. If the comment is submitted electronically using the FDMS system, the viewed comment will not include the name of the submitter or any other identifying information about the individual except that which the submitter has opted to include as part of his or her general comments. However, a comment submitted in writing that has been scanned and uploaded into the FDMS system will display the submitter's identifying information that has been included as part of the written correspondence.

#### CONTESTING RECORD PROCEDURES:

The procedures for accessing records, for contesting contents and appealing initial agency determinations are contained in regulatory guidance that is published by each of the DoD Components. DoD Component procedural rules can be obtained from the DoD FDMS system manager or are available at <http://www.defenselink.mil/privacy/cfr-rules.html>.

#### RECORD SOURCE CATEGORIES:

Individual.

#### EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

[FR Doc. 06-65 Filed 1-4-06; 8:45 am]

BILLING CODE 5001-06-M

## DEPARTMENT OF ENERGY

[Docket No. PP-89-1]

### Record of Decision and Floodplain Statement of Findings; Bangor Hydro-Electric Company Northeast Reliability Interconnect

**AGENCY:** Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy (DOE).

**ACTION:** Record of Decision (ROD) and Floodplain Statement of Findings.

**SUMMARY:** DOE announces its decision to implement the Proposed Action alternative, identified as DOE's preferred alternative in the *Final Environmental Impact Statement for the Bangor Hydro-Electric Company Northeast Reliability Interconnect* (DOE/EIS-0372). This alternative is to amend Presidential Permit PP-89 to authorize Bangor Hydro-Electric Company (BHE) to construct, operate, maintain, and connect a single-circuit, 345,000-volt (345-kV) electric transmission line that would originate at BHE's existing Orrington Substation, near Orrington, Maine, extend eastward approximately 85 miles, cross the United States (U.S.)-Canada border near Baileyville, Maine, and continue into New Brunswick, Canada. The proposed transmission line, referred to as the Northeast Reliability Interconnect (NRI), would be constructed along a route identified as the Modified Consolidated Corridors Route in the EIS.

In reaching this decision, DOE considered the low environmental impacts in the U.S. from constructing, operating, and maintaining the NRI, the lack of adverse impacts to the reliability of the U.S. electric power supply system, and the lack of major issues of concern to the public.

This ROD and Floodplain Statement of Findings have been prepared in accordance with the regulations of the Council on Environmental Quality (40 CFR Parts 1500-1508) for implementing the National Environmental Policy Act (NEPA), DOE's NEPA Implementing Procedures (10 CFR Part 1021), and DOE's Compliance with Floodplain and Wetland Environmental Review Requirements (10 CFR part 1022).

**ADDRESSES:** The Final EIS is available on the DOE NEPA Web site at <http://www.eh.doe.gov/nepa/documents.html> and on the project Web site at <http://web.ead.anl.gov/interconnecteis>, and the ROD will be available on both Web sites in the near future. Copies of the Final EIS and this ROD may be requested by contacting Dr. Jerry Pell at the Office of Electricity Delivery and

Energy Reliability, U.S. Department of Energy, OE-20, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, by telephone at 202-586-3362, by facsimile at 202-318-7761, or by electronic mail at [Jerry.Pell@hq.doe.gov](mailto:Jerry.Pell@hq.doe.gov).

**FOR FURTHER INFORMATION CONTACT:** For further information on the Bangor Hydro-Electric Company Northeast Reliability Interconnect EIS, contact Dr. Jerry Pell as indicated in the **ADDRESSES** section above. For general information on the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance, EH-42, at U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, D.C. 20585, by telephone at 202-586-4600, or leave a message at 800-472-2756.

**SUPPLEMENTARY INFORMATION:** The U.S. Department of the Interior's U.S. Fish and Wildlife Service (Service) and the U.S. Department of Commerce's National Oceanic and Atmospheric Administration's National Marine Fisheries Service were cooperating agencies in the preparation of the EIS. Under Section 7 of the Endangered Species Act, DOE has completed consultation with the USFWS regarding impacts on Federally-listed threatened or endangered species in the area of the proposed project.

#### Background

Executive Order (E.O.) 10485 (September 9, 1953), as amended by E.O. 12038 (February 7, 1978), requires that a Presidential permit be issued by DOE before electric transmission facilities may be constructed, operated, maintained, or connected at the U.S. international border. DOE may issue or amend a permit if it determines that the permit is in the public interest and after obtaining favorable recommendations from the U.S. Departments of State and Defense. In determining whether issuance of a permit for a proposed action is in the public interest, DOE considers the environmental impacts of the proposed project pursuant to NEPA, the project's impact on electric reliability by ascertaining whether the proposed project would adversely affect the operation of the U.S. electric power supply system under normal and contingency conditions, and any other factors that DOE may consider relevant to the public interest.

On December 16, 1988, BHE applied to DOE for a Presidential permit to construct, operate, maintain, and connect a single-circuit, alternating current (AC) 345-kV electric transmission line that would originate at

BHE's existing Orrington Substation, located near Orrington, Maine, extend approximately 84 miles eastward, and cross the U.S.-Canada border near Baileyville, Maine. In August 1995, DOE published a Final EIS (DOE/EIS-0166) for the proposed action of granting a Presidential permit to BHE, issued a ROD on January 18, 1996 (61 FR 2244), and, on January 22, 1996, issued Presidential Permit PP-89 to BHE for construction of the proposed transmission line along a route identified as the Stud Mill Road Route in the 1995 EIS.

In 1992, BHE received a permit from the State of Maine for construction of the NRI along the Stud Mill Road Route. The State subsequently granted extensions of its permit in 1994 and 1996. In 2001, BHE applied to the State for a third extension of its permit. During that extension proceeding, the Maine Board of Environmental Protection indicated a preference for a route other than the Stud Mill Road Route, one that would be more closely aligned with existing linear facilities in the area. BHE subsequently withdrew its request for the permit extension and, on May 10, 2005, applied for a new State permit to construct the NRI along a route for which the State had expressed a preference. On October 27, 2005, the State of Maine granted a permit to BHE for construction of the NRI along a route that has become known as the Modified Consolidated Corridors Route.

On September 30, 2003, BHE had applied to DOE to amend Presidential Permit PP-89 to allow for construction of the previously authorized 345-kV transmission line along a route different from the Stud Mill Road Route or from the other alternative routes analyzed in the 1995 EIS. In its present application, BHE has requested authority to construct the NRI along a route referred to as the Modified Consolidated Corridors Route. Like the international transmission line authorized by Presidential Permit PP-89, the NRI also would originate at the Orrington Substation, extend eastward approximately 85 mi (137 km), and cross the U.S.-Canada border near Baileyville, Maine, but would be more closely aligned with existing linear facilities than the originally proposed route. At the U.S.-Canada border, the NRI would connect with a transmission line to be constructed, operated, and maintained by New Brunswick Power Corporation (NB Power).

#### NEPA Review

DOE determined that amending Presidential Permit PP-89 as requested by BHE would constitute a major

Federal action that could have a significant impact on the environment within the meaning of NEPA. For this reason, DOE prepared an EIS to address potential environmental impacts from DOE's proposed action of granting the amendment to the Presidential permit and the range of reasonable alternatives. DOE published a notice of intent to prepare an EIS in the **Federal Register** on November 2, 2004 (68 FR 63514). On August 26, 2005, the U.S. Environmental Protection Agency (EPA) published a notice of availability of the Draft EIS (70 FR 50346), which began a 45-day public comment period that ended on October 11, 2005. In the Draft EIS, DOE identified its proposed action and preferred alternative as amending Presidential Permit PP-89 to allow BHE to construct the NRI along the Modified Consolidated Corridors Route.

All comments received on the Draft EIS were considered in the preparation of the Final EIS. However, because the nature of the comments received required only minor text changes (factual corrections, clarifications) to the Draft EIS, the Final EIS for the proposed DOE action consists of a Comment-Response Addendum together with the Draft EIS (40 CFR 1503.4 (c)). A notice of availability of the Final EIS was published by the EPA in the **Federal Register** on November 25, 2005 (70 FR 71139).

#### The Proposed Project

The NRI would extend approximately 85 mi (137 km) eastward from the Orrington Substation near Orrington, Maine, to the U.S.-Canada border near Baileyville, Maine. There the NRI would cross the St. Croix River into New Brunswick, Canada, and connect with a transmission line to be constructed, operated, and maintained by NB Power. The proposed NRI is intended to improve electricity delivery in Maine and the northeast and would increase the north-to-south electric power transfer capacity by 300 megawatts (MW) over the existing capacity of 700 MW. It would also increase the south-to-north power transfer capacity to 400 MW and would reduce overall line losses in the regional transmission system.

The NRI would have a single-circuit configuration and would consist of two overhead shield wires (to protect from lightning strikes) and three phases with two conductors per phase (for a total of 8 wires). Support structures would be self-supporting wood-pole H-frame structures for straight stretches of the line. Angle or dead-end structures would be used where the route of the line turns sharply or ends or where they

are needed to prevent cascading in long straight stretches. These types of structures would consist of three wood or three steel poles. The wood pole angle and dead-end structures would require guy wire supports, while the steel pole structures would not. The proposed 85-mile NRI would require a total of 610 support structures with an average span of about 730 ft (223 m) between support structures.

The right-of-way (ROW) width for various segments of the NRI would vary depending on the proximity of the NRI to existing utility ROWs or roads. The total area of the required ROW over the length of the proposed NRI would encompass approximately 1,565 acres (633 ha).

In order to implement the NRI, BHE would need to make alterations to four substations within Maine: The Orrington Substation near Orrington; the Maxcys Substation in Windsor; the Gulf Island Substation in Lewiston; and the Kimball Road Substation in Harrison. Changes made to the Orrington and Kimball Road Substations would require the area of those substations to be expanded by 0.8 acres (0.3 ha) and 0.2 acres (0.1 ha), respectively. Changes to the Maxcys and Gulf Island Substations would be made within the current fence lines.

The general activities that BHE would undertake in constructing the NRI would include surveying; construction or upgrading of access roads, as necessary; ROW clearing; and support structure installation, framing, and stringing. No new permanent access roads would be built.

In areas where the NRI would be located near, parallel to, or across a natural gas transmission pipeline constructed by Maritimes & Northeast, L.L.C. (M&N pipeline), AC mitigation would be installed by M&N to prevent shock hazards or induced currents in the pipeline. This mitigation would consist of the placement of a zinc ribbon in a plowed or excavated trench at a depth of at least 1.5 ft (0.5 m) and located above and parallel to the existing unprotected pipeline, the top of which is at least 3 ft (1 m) below the ground. After installation of the zinc ribbon, the trench would be backfilled. Depending on the alternative route, between 45 mi (72 km) and 68 mi (109 km) of zinc ribbon would be installed by M&N along the pipeline. The zinc ribbon would not be continuous in that it would not be installed within stream crossings.

ROW maintenance would be performed by BHE on a 3- to 4-year cycle and would consist of some of the same activities conducted during initial

vegetation clearing in order to maintain a minimum 15-ft (4.6-m) clearance between conductors and vegetation.

#### Alternatives

DOE analyzed four alternative routes for the NRI in the EIS. These included: (1) The Modified Consolidated Corridors Route (Proposed Action); (2) the Consolidated Corridors Route; (3) the Previously Permitted Route (No Action); and the MEPCO South Route.

Although the "no action" alternative in an EIS usually results in no project being built, in this instance "no action" means that DOE would not amend PP-89 but that the existing permit would remain in effect. This would result in the proposed NRI being constructed along the Previously Permitted Route. In addition, the EIS evaluates the alternative of Rescission of Presidential Permit (PP-89). Under this alternative, the proposed NRI would not be constructed along any route. Together, these alternatives represent the range of reasonable alternatives under NEPA.

The alternative routes originate at the Orrington Substation, are identical for the initial 12.2 mi (19.6 km), and all cross the St. Croix River near Baileyville, Maine. All alternative routes would cross primarily commercial forest land, 100-year floodplains and wetlands, and both perennial and intermittent streams. The Modified Consolidated Corridors, Consolidated Corridors, and Previously Permitted routes would cross the Narraguagus and Machias Rivers; while the MEPCO South Route would cross both the Passadumkeag River and the Penobscot River at two locations. The four alternative routes are described below.

**Alternative One—Modified Consolidated Corridors Route:** From the Orrington Substation, the Modified Consolidated Corridors Route would parallel the existing 345-kV Maine Electric Power Company (MEPCO) transmission line to Blackman Stream in Bradley. The route would then proceed northeast within a new corridor until meeting Stud Mill Road and the M&N gas pipeline ROW; it would then proceed east-northeast, generally paralleling the M&N gas pipeline and Stud Mill Road to the international border near Baileyville, Maine. The total length of this route would be about 85 mi (137 km) and would consist of 15 mi (24 km) of new ROW, 58 mi (93 km) adjacent to the existing M&N gas pipeline and/or Stud Mill Road, and 12 mi (19 km) adjacent to the existing MEPCO 345-kV transmission line, including portions that are co-located with the M&N gas pipeline and/or other transmission lines.

**Alternative Two—Consolidated Corridors Route:** This route would be similar to the Modified Consolidated Corridors Route, except for the two deviations in the Modified Consolidated Corridors Route that total about 14 mi (22.5 km). The first and longest route deviation occurs between Blackman Stream and Stud Mill Road near Pickerel Pond, where the Consolidated Corridors Route runs along the southeast edge of the Sunhaze Meadows National Wildlife Refuge but the Modified Consolidated Corridors Route avoids the Refuge by running further south. The second deviation occurs in the area of Myra Camps, just west of Dead Stream, where the Modified Consolidated Corridors Route passes to the north of Myra Camps whereas the Consolidated Corridors Route passes to the south. After the second deviation, the Consolidated Corridors and the Modified Consolidated Corridors routes would be identical to the international border. The Consolidated Corridors Route would traverse a total of 85 mi (137 km) and would consist of 2 mi (3 km) of new ROW, 68 mi (109 km) adjacent to the M&N gas pipeline and/or Stud Mill Road, and 15 mi (24 km) adjacent to the existing MEPCO 345-kV transmission line, including portions co-located with the M&N gas pipeline and/or other transmission lines.

**Alternative Three—Previously Permitted Route:** This route, formerly known as the Stud Mill Road Route, would be identical to the Modified Consolidated Corridors Route for the initial 18 mi (30 km) out of the Orrington Substation, and then would proceed east-northeast along a route generally paralleling the M&N gas pipeline and Stud Mill Road, but deviating an average of 2,500 ft (762 m) from the road and crossing it 13 times. After the initial 18 mi (30 km), the Previously Permitted Route would share very little of the Modified Consolidated Corridors Route, but would traverse the same general area, including the same counties and municipalities as the Modified Consolidated Corridors Route. The total length of the Previously Permitted Route would be about 84 mi (135 km) and would consist of 62 mi (100 km) of new ROW, 10 mi (16 km) adjacent to the M&N gas pipeline and/or Stud Mill Road, and 12 mi (19 km) adjacent to the existing MEPCO 345-kV transmission line, including portions co-located with the M&N gas pipeline and/or other transmission lines.

This alternative route is also the No Action alternative. Under the No Action alternative, DOE would deny BHE's request to amend Presidential Permit

PP-89 and the existing permit would remain in effect. Because the existing permit authorizes BHE to construct a 345-kV international transmission line only along the Stud Mill Road Route, this is the only alternative that BHE could implement under No Action.

**Alternative Four—MEPCO South Route:** From the Orrington Substation, this route would parallel the existing 345-kV transmission line to Chester, Maine, roughly 40 mi (64 km) to the north. The MEPCO South Route would then proceed generally eastward to Route 6 east of Lee, Maine. It would then generally parallel, but not be co-located with, Route 6 until just west of Route 1 at Topsfield, Maine. It would then proceed southeast to the border crossing point near Baileyville, Maine. The total length of the MEPCO South Route would be about 114 mi (183 km) and would consist of 39 mi (63 km) of new ROW, 54 mi (87 km) adjacent to the existing MEPCO 345-kV transmission line, including portions co-located with the M&N gas pipeline and/or other transmission lines, and 21 mi (34 km) adjacent to an existing Eastern Maine Electric Cooperative 69-kV transmission line. Except for the initial portion of the route that leaves Orrington Substation, the MEPCO South Route would run substantially to the north and would be longer than the other three alternative routes.

#### Analysis of Environmental Impacts

The EIS analyzes impacts from the alternatives for each of the following resource areas: air quality, land features (e.g., geology and soils), land use, hydrological resources, ecological resources, cultural resources, socioeconomic, environmental justice considerations, visual resources, health and safety, and cumulative impacts. The impacts of particular concern for the proposed project were ecological resources impacts to wetlands, streams and rivers, wildlife habitat, and endangered species, particularly the bald eagle and Atlantic salmon.

The Rescission of Presidential Permit alternative would result in no new impacts to any of the resource areas from construction, operation, and maintenance of the NRI but would not necessarily result in no environmental impacts. BHE or other entities in the region may seek to undertake other actions that could achieve the intended purpose of the NRI. However, these other possible actions and their resulting environmental impacts are too speculative to be addressed in the EIS.

Impacts identified in the EIS and discussed in this section are based upon implementation by BHE of all mitigation

measures named in the EIS (in Section 2.4 and Chapter 4, and in the Wetland and Floodplain Assessment, the Biological Assessment, and the Essential Fish Habitat Assessment contained, respectively, in Appendices E, F, and G of the EIS).

**Air Quality:** No significant differences in air quality impacts would occur for any of the four route alternatives. Localized, short-term air quality impacts from fugitive dust and vehicular and construction equipment emissions would result from construction. BHE's commitment to construct during winter months, to the extent practicable, would minimize fugitive dust emissions. During operation, corona-produced ozone would be well below ozone standards. A conformity review is not required because none of the four alternative routes would be located within nonattainment areas for any of the criteria pollutants.

**Land Features:** The construction of the NRI along any of the alternative routes would not impact geologic resource availability. Localized terrain changes could result from the installation of support structures, substation expansions, or establishment or upgrading of access roads. However, because of the relatively flat terrain, topographic changes to the area would be negligible. Impacts on soils from localized erosion and compaction would be negligible because BHE would employ standard mitigation measures (Section 2.4 of the EIS) to minimize soil erosion and promptly restore construction areas. As practicable, BHE would conduct most of the construction activities in sensitive areas during the winter when precipitation occurs as snowfall and the soil surface is frozen. None of the alternative routes is located in areas of relatively high seismic activity.

**Land Use:** All four alternative routes would cross primarily through privately-owned commercially forested land. ROW clearance and support structure installation would be the main activities that could result in impacts on land use. The length of each of the alternative routes, except the MEPCO South alternative, would be relatively similar (84 to 85 mi [135 to 137 km]). The MEPCO South Route would be 114 mi (183 km) long.

Depending upon the alternative, between 1,391 and 1,513 acres (563 and 612 ha) of forested land could be impacted by ROW land-disturbing activities. However, for any of the four alternative routes, this represents less than 0.03% of the total acreage of forested lands (both managed and unmanaged; approximately 4.3 million

acres [1.7 million ha]) within the project area of Hancock, Penobscot, and Washington Counties. Although land within the ROW would be removed from commercial forest production, the presence of the NRI would not restrict the continuation of commercial forestry operations in areas adjacent to the ROW. The Previously Permitted and MEPCO South Routes require notably more new ROW, 62 mi (100 km) and 39 mi (63 km), respectively, than the Consolidated Corridors and Modified Consolidated Corridors Routes, 2 mi (3.2 km) and 15 mi (24 km), respectively. The Previously Permitted and MEPCO South Routes would also require 21 acres (8.5 ha) and 32 acres (13 ha), respectively, of clearing for new temporary access roads compared to none for the other two routes.

The presence of the ROW under any of the four alternative routes would not restrict continued land use for agriculture, except within the immediate area of a support structure due to constraints on farm equipment use. The total farm acreage removed from production would be 0.35 acre (0.14 ha) for the Modified Consolidated Corridors and Consolidated Corridors Routes, 0.29 acre (0.12 ha) for the Previously Permitted Route, and 1.32 acres (0.53 ha) for the MEPCO South Route. This represents a very small percentage of the more than 300,000 acres (120,000 ha) of farmland in the three-county area.

Recreational activities in the project area include all-terrain vehicle (ATV) use, snowmobiling, canoeing, fishing, and hunting. The Previously Permitted Route would open an estimated 19 access areas for ATV use compared to 1 for the MEPCO South route and 0 for the Modified Consolidated Corridors route. ROWs for all four alternative routes would provide increased access for hunting.

The NRI could affect residential areas either visually or through property being taken by condemnation through BHE's rights of eminent domain as a public utility. The Modified Consolidated Corridors route would not result in the taking of any dwellings. The MEPCO South route would require the taking of 10 dwellings compared to 3 for the Consolidated Corridors Route and 2 for the Previously Permitted route.

No potentially limiting land use issues were identified for the Modified Consolidated Corridors, Consolidated Corridors, or MEPCO South routes. Implementation of the Previously Permitted Route was viewed as potentially disruptive to logging operations and also would require

negotiating with the State for an easement across the Machias River at the proposed location or moving the crossing 3,400 ft (1,036 m) to an existing utility corridor.

**Hydrological Resources:** No adverse impacts on surface water or groundwater resources would occur from any of the alternative routes. BHE would avoid placing support structures within 75 ft (23 m) from the top of stream banks (or within 25 ft [7.6 m] for the portion of the NRI that would parallel the existing 345-kV transmission line). However, support structures would be placed as close as possible to the edge of the 75-ft buffers for Atlantic salmon streams of special concern to minimize the amount of clearing required in order to maintain shade and stream temperatures. The Modified Consolidated Corridors, Consolidated Corridors, and Previously Permitted Routes would cross two designated Outstanding River Segments on the Narraguagus and Machias Rivers. BHE would place support structures farther away from these rivers to minimize visual impacts, and, because the crossing locations for these rivers are relatively open, no changes in water temperatures from clearing the ROW would be expected.

Impacts on water bodies from erosion, sedimentation, loss of stream shading, and fuel and herbicide contamination would be negligible for all four alternative routes because of the standard mitigation measures (Section 2.4 of the EIS) that BHE would employ. These measures also would mitigate potential impact to ecological resources, particularly the Atlantic salmon.

**Ecological Resources:** Vegetation would primarily be affected by clearing to establish and maintain the ROW, install support structures, create new temporary access roads, and install AC mitigation, as required. Forest clearing would fragment habitat by creating a new ROW through contiguous forest habitats or by expanding ROW width where the NRI would be co-located with existing utility facilities. The acreage of forest clearing for the ROW would be similar for all four routes (between 1,391 and 1,513 acres [563 and 612 ha]), as discussed above under *Land Use*.

Impacts to wildlife from construction and operation of the NRI would be local and affect only individual animals. Population-level impacts may not be detectable above natural population fluctuations and from fluctuations resulting from other activities in the area such as logging and hunting; but the potential exists for birds to collide with the conductors and shield wires. This could occur where the NRI crosses



through areas where birds would be most likely to congregate, such as waterfowl and wading bird habitats. The acreage of waterfowl and wading bird habitats that would be crossed by the NRI would be 133 acres (54 ha) for the Modified Consolidated Corridors Route, 113 acres (45 ha) for the Consolidated Corridors Route, 93 acres (37 ha) for the Previously Permitted Route, and 148 acres (60 ha) for the MEPCO South Route.

Impacts on special status species would be similar to those described for other biota, but any impacts could affect their populations because of the species' limited distribution and/or abundance. The number of streams or waterbodies crossed that are of importance to the Federally-endangered Atlantic salmon (*Salmo salar*) Gulf of Maine Distinct Population Segment would be similar for all routes except the MEPCO South Route. These streams and waterbodies include: The Narraguagus River; two tributaries to Fifth Machias Lake; a tributary to Fletcher Brook; the Machias River; a tributary to Dead Stream; Lanpher Brook; Huntley Brook; and Joe Brook. The number of Atlantic salmon streams that would be crossed by the Modified Consolidated Corridors, Consolidated Corridors, Previously Permitted, and MEPCO South routes would be 37, 38, 33, and 6, respectively. Those crossed by the MEPCO South Route would be within the initial 12.2 mi (19.6 km) that are common to all four alternative routes.

Conversely, the MEPCO South Route would cross through one known area of essential habitat for the Federally-endangered bald eagle (*Haliaeetus leucocephalus*) and two areas of shortnose sturgeon habitat, while the other routes would not cross through or over these habitats. Potential adverse impacts from construction and maintenance of the ROW would be minimized or eliminated by the implementation of mitigation practices for special status species. For example, ball markers would be placed on the shield wires across the St. Croix River, Machias River, Narraguagus River, Great Works Stream, and Penobscot River to minimize the potential for bald eagles to collide with the wires.

By letter dated December 15, 2005, the U.S. Fish and Wildlife Service has concurred with DOE's finding that the proposed project is not likely to adversely affect the bald eagle or Atlantic salmon<sup>1</sup> within the project

area. This conclusion is predicated upon BHE employing a modified stream buffer vegetation maintenance program for protection of the Atlantic salmon, as discussed above under *Hydrological Resources*, and on conducting aerial surveys for bald eagle nests during spring 2006 and 2007.

A very small amount of wetland fill would be required where support structures would be located within wetlands. The number of support structures that could be located in wetlands was conservatively estimated at 73 for the Modified Consolidated Corridors Route, 62 for the Consolidated Corridors Route, 77 for the Previously Permitted Route, and 109 for the MEPCO South Route. The actual number of support structures would probably be less, as adjustments could be made during the final siting process. No more than 0.04 acre (0.02 ha) of wetlands would be filled by support structures for any of the alternative routes.

The greatest impact on wetlands would occur in areas where forested wetlands would be cleared and subsequently converted to scrub-shrub or emergent wetlands. The acreage so affected would be 70 acres (29 ha) for the Modified Consolidated Corridors Route, 53 acres (21 ha) for the Consolidated Corridors Route, 103 acres (41 ha) for the Previously Permitted Route, and 73 acres (29 ha) for the MEPCO South Route. No permanent adverse changes in wetland functions would be anticipated for any of the alternative routes. Impacts to wetlands would be mitigated by BHE conducting most of the construction activities in sensitive areas during the winter when precipitation occurs as snowfall and the soil surface is frozen. Impacts to aquatic biota would be negligible as in-stream disturbance would not occur.

*Cultural Resources:* No impacts on cultural resources (including archaeological sites and historic structures and features, as well as properties of significance to traditional cultures and religions, including Native American burial grounds) are expected from the Modified Consolidated Corridors Route. The Maine Historic Preservation Officer (MSHPO) has concurred in this finding. Impacts on cultural resources are possible, but unlikely, for the Consolidated Corridors and Previously Permitted Routes. Impacts on cultural resources would be more probable for the MEPCO South

Route than other alternative routes because the Penobscot River drainage has been identified as an area of high potential for containing significant archaeological material. A cultural resource survey and approval of the survey results by the MSHPO would be required if the Consolidated Corridors, Previously Permitted, or MEPCO South routes were selected for the proposed project. Surveys may also be required in areas designated for new temporary access roads and some staging areas if evidence of cultural material is observed during the initial selection of these sites. No cultural resources are expected in areas where AC mitigation would be required, since those areas were previously disturbed when the M&N gas pipeline was installed.

*Socioeconomics:* Construction of the NRI along the Modified Consolidated Corridors, Consolidated Corridors, or the Previously Permitted Routes would create approximately 120 direct (construction) jobs and about 110 indirect (service-related) jobs. The MEPCO South Route would create approximately 150 direct jobs and 130 indirect jobs. The jobs created by the construction of the NRI would primarily benefit Hancock, Penobscot, and Washington Counties. No significant influx of population or stress to community services would be expected from construction of the NRI. No socioeconomic impacts would be expected from its operation because most jobs created would be filled by current residents.

*Environmental Justice Considerations:* None of the alternative routes would have a disproportionately high and adverse impact on minority or low-income populations.

*Visual Resources:* Visual impacts would primarily occur from the introduction of support structures and transmission line wires into the landscape, most notably in areas where more remote recreational activities occur. The NRI would be visible to more residents if constructed along the MEPCO South Route than the other alternative routes because it is close to towns and roads along the Route 2 and Route 6 corridors. The Modified Consolidated Corridors, Consolidated Corridors, and Previously Permitted routes would be within the viewshed of Outstanding River Segments on the Narraguagus and Machias Rivers, which are rivers declared by the Maine Legislature to provide irreplaceable social and economic benefits to people because of their unparalleled natural and recreational values. However, BHE would place support structures farther away from these rivers to minimize

<sup>1</sup> In its comments on the Draft EIS, the U.S. Fish and Wildlife Service suggested that DOE report on the completion of the Service's recovery plan for the Atlantic salmon in the Final EIS. The recovery

plan had not been finalized by the time DOE published the Final EIS. The Service finalized the plan on December 20, 2005, and it is available at [http://ecos.fws.gov/docs/recovery\\_plans/2005/051220.pdf](http://ecos.fws.gov/docs/recovery_plans/2005/051220.pdf).



visual impacts. BHE would use similar means of mitigation at the U.S. side of the St. Croix River, which would be crossed by all four alternative routes.

**Health and Safety:** Potential impacts to human health and safety from the proposed NRI include exposure to electric shocks from induced currents, exposure to electromagnetic fields (EMF), and occupational risks from the construction and maintenance of the line. For all alternative routes, risks from such exposures and hazards would be very low. Compliance with industry standards by BHE for construction and operation and the implementation of AC mitigation by M&N would reduce shock hazards to negligible levels. No health effects would occur to members of the public from exposure to the low-level EMF produced by the NRI.

There would be no significant differences in potential noise impacts from any of the alternative routes. Noise levels would increase above background during construction, primarily impacting residents and recreationists close to the ROW. The number of dwellings in close proximity (within 600 ft) to the ROW are: 40 for the Modified Consolidated Corridors Route; 59 for the Consolidated Corridors Route; 39 for the Previously Permitted Route; and 131 for the MEPCO South Route. Elevated noise levels during construction would only occur during daytime. During operation, long-term noise from the corona effect on transmission lines would generally be lost in background noise.

The potential risk to people with pacemakers and the potential for radio and television interference would be negligible for all alternative routes. What little potential there is would be slightly greater for the MEPCO South Route because it has more dwellings within 100 ft (30 m) of the ROW and has more highway crossings than the other alternative routes.

The potential human health risks from herbicide usage would be negligible because BHE would adhere to regulations and implement standard mitigation practices associated with the use of these products. The potential for fatalities of, and injuries to, construction and maintenance workers would be slightly greater for the MEPCO South Route than for the other alternative routes because of its greater length, which would require more clearing and more support structures. Nevertheless, fatality risks are expected to be less than 1 fatality for all alternative routes. Nonfatal occupational injuries and illnesses for construction of the NRI are estimated to be 9.7 for the MEPCO South Route based on 140 construction

workers required for construction, and 6.9 for the other alternative routes based on 100 construction workers; nonfatal injuries and illnesses during maintenance would be less than 1 per 10 full-time personnel for all alternative routes.

**Cumulative Impacts:** Cumulative impacts analysis in an EIS places the effects of the proposed action into a broader context that includes impacts from other past, present, and reasonably foreseeable future actions potentially affecting the same environmental resources. The potential cumulative impacts are primarily related to long-term development of land that is currently used for other activities such as commercial timber production and recreation. If multiple projects are under construction simultaneously, an increased amount of land could be used temporarily for construction lay-down and staging areas, and an increased amount of fugitive dust could be generated. The cumulative change on land use could affect natural habitats, special status species, and cultural resources, and could lead to an increase in soil erosion. The cumulative effects on human health and safety could be an increase in background EMF exposure to residents in the immediate vicinity of the NRI. No long-term cumulative health impacts are expected to occur. No disproportionately high and adverse impacts were identified for minority and low-income populations for the proposed project, and the NRI would not contribute cumulatively to any environmental justice impacts. The NRI would result in only very small incremental (cumulative) environmental impacts within east-central Maine because most of it would be constructed within commercial timber areas where impacts associated with harvesting of trees currently occur. The NRI ROW would add to various ROWs and timber clearings that currently exist in the region.

#### Floodplain Statement of Findings

In the EIS, DOE assessed the impacts of the NRI on floodplains. All four alternative routes for the NRI would cross a number of 100-year floodplains. Maps of the floodplains are provided in the wetland and floodplain assessment in the EIS. There would be no practical alternative to routing the NRI through wetlands or the placement of some support structures in wetlands and floodplains.

Because of the small footprint for a support structure (15 ft<sup>2</sup> [1.4 m<sup>2</sup>] per pole), and the small number of support structures that would be located in floodplains (e.g., only 13 poles within

mapped 100-year floodplains for the Modified Consolidated Corridors Route), the placement of support structures in floodplains would not be expected to result in any increase in flood hazard either as a result of increased flood elevation or because of changes in the flow-carrying capacity of the floodplain. The support structures would not exacerbate flooding because they would not impede floodwater movement or reduce floodwater storage capacity. In accordance with Maine Department of Environmental Protection's Site Location Law, the NRI would not cause or increase flooding, cause a flood hazard to any structure, nor have an unreasonable effect on runoff infiltration. BHE would design, construct, and maintain substation modifications so that flooding extent and frequency of flooding to downstream waterbodies would not be increased and so that the 100-year flood elevation would not be adversely affected. Impacts on floodplain and flooding from the NRI are therefore expected to be insignificant for any alternative route and would not result in change to conditions in the floodplains, flooding, or floodplain function.

#### Environmentally Preferable Alternative

DOE has identified the Rescission of Presidential Permit alternative as environmentally preferable. Although this alternative would result in no international transmission line being developed and would avoid all of the impacts identified from construction, operation, and maintenance activities of the proposed transmission line, it may not necessarily result in no impacts. Because this alternative would not serve the electric reliability needs of the region, it is possible that BHE or another entity in the region may take other actions to achieve the purpose of the NRI. However, the nature of other possible actions and their associated environmental impacts are too speculative to be assessed in the EIS.

Because the Rescission of Presidential Permit alternative would not serve the public interest with respect to the electricity needs of the region, DOE has also identified the Modified Consolidated Corridors Route as the environmentally preferable alternative among the alternatives that would result in the construction of an international transmission line. This alternative was selected because, as discussed above in the *Analysis of Environmental Impacts* section, it would result in the lowest impacts across most resource areas compared to the other three alternative routes.

### Comments Received on the Final EIS

DOE received one comment letter on the Final EIS from the EPA Region 1 in which it made suggestions in three areas: (1) Vernal Pool Mapping: That DOE provide information on classification of wetland types and the locations of vernal pools in the area of the NRI to help EPA identify options to minimize impacts that would be relevant during the Section 404 review; (2) Buffer Requirements: That DOE consider mitigation measures such as buffer requirements for wetlands and vernal pools not associated with stream corridors or standing water; and (3) Compensatory Mitigation for Habitat Loss: That DOE consider compensatory mitigation for wildlife habitat loss from ROW clearing.

**Vernal Pool Mapping:** DOE notes that BHE has provided detailed information on the location of vernal pools to the U.S. Army Corps of Engineers (USACE) in a letter dated December 13, 2005. (A copy of this letter has been forwarded to EPA.) Also, several project features and mitigation measures that will be employed by BHE are designed to protect wetlands in general and vernal pools and their associated wetlands in particular. Some of these measures include: Not placing permanent structures within potential vernal pools or their associated wetlands; conducting clearing during frozen conditions to the maximum extent practicable, which minimizes ground disturbance and excessive rutting in the vicinity of the pools; utilizing timber mats when the ground is not completely frozen during clearing and construction; not grubbing tree stumps to further reduce the potential for ground disturbance; and restoring to pre-clearing condition and stabilizing any areas where clearing has resulted in rutting and soil disturbance. In addition, because the ROW will remain vegetated, there should be no long-term effects on vernal pools following construction. DOE considers that the project plan and profiles, which was recently submitted to EPA, provides sufficient information to determine the nature and magnitude of wetland impacts of the NRI. Thus, DOE concludes that the implementation of these and other measures will minimize direct and indirect impacts to potential vernal pool basins during construction of the NRI, and additional classification of wetland types within the area of the proposed ROW is not necessary.

**Buffer Requirements:** Maintaining adequate clearance between electrical conductors and vegetation is critical to the safe and reliable operation of the NRI. The establishment of buffers to

protect wetlands not associated with stream corridors (e.g., many forested wetlands and vernal pools) would require BHE to maintain the ROW with different vegetation heights for stream corridor wetlands and forested wetlands for the 85-mile length of the ROW. Mitigating the effects to forested wetlands by establishing buffers of different vegetation heights for these areas would result in a complicated ROW maintenance program. This increased complexity would increase the possibility of errors made in vegetation trimming (i.e., vegetation may be allowed to grow too high) which would reduce the reliability of the NRI. However, the entire length of the ROW will be maintained in a vegetated state, effectively providing protective areas around all wetland resources. DOE also notes that BHE's comprehensive vegetation management plan balances electrical reliability and minimizes environmental impacts to the maximum extent practicable. For these reasons, DOE concludes that it is not necessary to incorporate additional mitigation measures for non-stream corridor wetlands in this ROD. However, the USACE may choose to include additional mitigation measures as part of its Section 404 review.

**Compensatory Mitigation for Habitat Loss:** DOE also concludes that compensatory mitigation for wildlife habitat loss due to ROW clearing is not necessary for the following reasons. First, forested wetlands that will be affected are part of a much larger forested landscape and, therefore, are not considered unique in this part of Maine. Second, BHE has selected routes and located support structures so as to avoid or minimize filling of wetlands. As a result there is no more than 0.04 ac (0.02 ha) of permanent fill to wetlands for any of the alternative routes. This amount of permanent fill typically would not require an individual permit from the USACE under Section 404 of the Clean Water Act.

Third, while there may be temporary wetland impacts during construction, BHE will be constructing during frozen conditions and/or using timber mats in wetland areas to minimize impacts. DOE does not consider that the temporary impacts associated with construction under these conditions require further mitigation. Fourth, although BHE's vegetation maintenance of the NRI will result in permanent conversion of forested wetland habitat to emergent and/or scrub-shrub type wetland habitats, no permanent loss of functions or values is expected because the vegetated ROW will still provide

wildlife habitat for a variety of species. In summary, based on the aforementioned and specifically because wetlands are being converted and are not being lost, DOE concludes that there is not a basis for requiring compensatory mitigation.

### Decision

DOE has decided to amend Presidential Permit PP-89 to authorize BHE to construct, operate, maintain, and connect a 345-kV international transmission line along the Modified Consolidated Corridors Route. This action is identified as DOE's preferred alternative in the EIS. The amended permit will have a condition in it requiring BHE to implement all mitigation measures identified in the EIS (Section 2.4, Chapter 4, and Appendices E, F, and G of the EIS).

Before granting a Presidential permit, DOE also considers whether a proposed international electric transmission line would have an adverse impact on the reliability of the U.S. electric power supply system. In reaching this determination, DOE considers the operation of the electrical grid with a specified maximum amount of electric power transmitted over the proposed line.

As part of its permit amendment application, BHE submitted technical studies which demonstrated that the NRI, in combination with the existing 345-kV MEPCO line (authorized by Presidential Permit PP-43), can import up to 1,000 MW from, and export up to 400 MW to, New Brunswick without adversely impacting the reliability of the regional electrical grid. Therefore, the permit will contain an electric reliability condition that limits operation of the NRI such that the instantaneous rate of transmission (i.e., electric power) over a combination of the NRI and the PP-43 facilities may not exceed 1,000 MW in the import mode or 400 MW in the export mode.

### Basis for Decision

In arriving at its decision, DOE has considered the electrical needs of the region, the lack of adverse impacts to the U.S. electric power supply system, the low potential for environmental impacts in the U.S., the nature of potential impacts of the alternatives, and public comments provided during the preparation of the EIS.

DOE has determined that the potential impacts from the Modified Consolidated Corridors Route alternative are expected to be small, as discussed above, and overall less than the expected impacts from any of the other alternatives except the Rescission of Presidential Permit

alternative. DOE did not select the Rescission of Presidential Permit alternative because it would not address the need for additional transmission capacity in the region.

DOE did not select the Previously Permitted Route alternative, nominally the "no action" alternative, because it would not achieve the consolidation of linear facility corridors as preferred by the State. This alternative would also have somewhat higher, but still low, impacts compared to the Modified Consolidated Corridors Route alternative. DOE did not select the Consolidated Corridors Route alternative because it would not avoid two areas addressed by route modifications in the Modified Consolidated Corridors Route alternative. DOE did not select the MEPCO South Route alternative because it had generally the highest impacts of any of the route alternatives, while providing no offsetting benefits to justify its selection.

For the foregoing reasons, DOE has decided to amend Presidential Permit PP-89 to authorize BHE to construct, operate, maintain, and connect the NRI along the Modified Consolidated Corridors Route as defined in the EIS, but with the condition noted in the *Decision* section above.

Dated: December 29, 2005.

**Kevin M. Kolevar,**

*Director, Office of Electricity Delivery and Energy Reliability.*

[FR Doc. E5-8305 Filed 1-4-06; 8:45 am]

BILLING CODE 6450-01-P

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

[Docket Nos. EC06-47-000, et al.]

#### Duke Energy Trading and Marketing, L.L.C. and DB Energy Trading LLC et al.; Electric Rate and Corporate Filings

December 29, 2005.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

##### 1. Duke Energy Trading and Marketing, L.L.C. and DB Energy Trading LLC

[Docket No. EC06-47-000]

Take notice that, on December 21, 2005, Duke Energy Trading and Marketing, L.L.C. (DETM) and DB Energy Trading LLC (DB Energy) Commission an application pursuant to section 203 of the Federal Power Act for authorization of the transfer by DETM of

a wholesale power transaction to DB Energy. DETM and DB Energy have requested privileged treatment for commercially sensitive information contained in the application.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

##### 2. Hunlock Creek Energy Ventures, UGI Development Company, UGI Hunlock Development Company, Allegheny Energy Supply Company, LLC, and Allegheny Energy Supply Hunlock Creek

[Docket No. EC06-50-000]

Take notice that on December 22, 2005, Hunlock Creek Energy Ventures, UGI Development Company, UGI Hunlock Development Company, Allegheny Energy Supply Company, LLC; and Allegheny Energy Supply Hunlock Creek (collectively, Applicants) submitted a Joint Application for Authorization Under section 203 of the Federal Power Act for Disposition of Jurisdictional Facilities.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

##### 3. Duke Energy Trading and Marketing, L.L.C. and Sempra Energy Trading Corp.

[Docket No. EC06-51-000]

Take notice that on December 22, 2005, Duke Energy Trading and Marketing, L.L.C. (DETM) and Sempra Energy Trading Corp. (SET) submitted an application pursuant to section 203 of the Federal Power Act for authorization of a disposition of jurisdictional facilities in which DETM proposes to transfer to SET various wholesale electric power sales contracts. The Applicants have requested privileged treatment for commercially-sensitive information contained in the Application.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

##### 4. Post Wind Farm LP

[Docket No. EG06-25-000]

Take notice that on December 22, 2005, Post Wind Farm LP, with its business address at 700 Universe Blvd., Juno Beach, Florida, 33408, filed with the Federal Energy Regulatory Commission an application for determination of exempt wholesale generator status pursuant to part 365 of the Commission's regulations.

Post Wind Farm LP states that the facility will consist of 56 General Electric wind turbines of 1.5MW each for a total nameplate capacity of 84MW.

*Comment Date:* 5 p.m. eastern time on January 12, 2006.

##### 5. Tenaska III Texas Partners

[Docket No. EG06-26-000]

Take notice that on December 23, 2005, Tenaska III Texas Partners tendered for filing with the Commission an application for determination of exempt wholesale generator status pursuant to Part 365 of the Commission's regulations.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

##### 6. City of Riverside, California

[Docket No. EL06-38-000]

Take notice that on December 22, 2005, the City of Riverside, California and the California Independent System Operator Corporation Electric Tariff, tendered for filing its third annual revision to its Transmission Revenue Balancing Account Adjustment.

*Comment Date:* 5 p.m. eastern time on January 12, 2006.

##### 7. El Paso Electric Company

[Docket No. EL06-39-000]

Take notice that on December 23, 2005, El Paso Electric Company tendered for filing a Petition for Declaratory Order Disclaiming Jurisdiction over its sales of electric energy to the Holloman Air Force Base in Alamogordo, New Mexico.

*Comment Date:* 5 p.m. eastern time on January 24, 2006.

##### 8. Alternate Power Source, Inc.

[Docket No. ER96-1145-017]

Take notice that on December 21, 2005, Alternate Power Source, Inc., tendered for filing amended Market Behavior Rules pursuant to Commission Order issued November 3, 2005.

*Comment Date:* 5 p.m. eastern time on January 11, 2006.

##### 9. American Cooperative Services, Inc.

[Docket No. ER00-2823-002]

Take notice that on December 22, 2005, American Cooperative Services, Inc., submitted for filing with the Federal Energy Regulatory Commission certain revisions to its FERC Electric Rate Schedule No. 1.

*Comment Date:* 5 p.m. eastern time on January 6, 2006.

##### 10. Continental Electric Cooperative Services, Inc.

[Docket No. ER02-1118-005]

Take notice that on December 22, 2005, Continental Electric Cooperative Services, Inc., submitted for filing with the Federal Energy Regulatory Commission certain revisions to its FERC Electric Rate Schedule No. 1, Original Volume No. 1.

*Comment Date:* 5 p.m. eastern time on January 6, 2006.

**11. Devon Power, LLC; Middletown Power, LLC; and Montville Power, LLC**

[Docket No. ER06-118-001]

Take notice that on December 23, 2005 Devon Power, Middletown Power, LLC and Montville Power, LLC (collectively, Applicants) submitted an errata to their December 21, 2005, Offer of Settlement pursuant to section 205 of the Federal Power Act. Applicants states the Settlement modifies certain terms of each proposed Reliability Agreements that were submitted on November 1, 2005.

*Comment Date:* 5 p.m. eastern time on January 6, 2006.

**Standard Paragraph**

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 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 notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

**Nora E. Donovan,**  
*Acting Secretary.*

[FR Doc. E5-8300 Filed 1-4-06; 8:45 am]

BILLING CODE 6717-01-P

**DEPARTMENT OF ENERGY**

**Federal Energy Regulatory Commission**

[Docket Nos. EC06-38-000, et al.]

**The Goldman Sachs Group, Inc. et al.; Electric Rate and Corporate Filings**

December 28, 2005.

The following filings have been made with the Commission. The filings are listed in ascending order within each docket classification.

**1. The Goldman Sachs Group, Inc.**

[Docket No. EC06-38-000]

Take notice that on December 12, 2005, The Goldman Sachs Group, Inc. (GS Group) filed with the Federal Energy Regulatory Commission (Commission) an application pursuant to Section 203(a)(2) of the Federal Power Act seeking blanket authorization for the acquisition, directly or indirectly, of securities of electric utility companies, transmitting utilities or of any holding company over any electric utility company or transmitting utility, subject to certain proposed limitations.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

**2. SCANA Corporation, South Carolina Electric & Gas Company, and South Carolina Generating Company, Inc.**

[Docket Nos. EC06-39-000 and ES06-18-000]

Take notice that on December 13, 2005, South Carolina Electric & Gas Company (SCE&G) and South Carolina Generating Company, Inc. (GENCO) filed an application seeking authority pursuant to section 204 and 203 of the Federal Power Act: (i) For SCE&G and GENCO to issue up to \$700 million and \$100 million, respectively, of short-term unsecured promissory notes in the form of bank loans and commercial paper, or borrowings from the SCANA Utility Money Pool during the period ending December 31, 2007, (ii) for SCANA Corporation (SCANA) to purchase, acquire or take not more than \$700 million of such short-term debt of SCE&G and not more than \$100 million of such short-term debt of GENCO, for SCE&G to purchase, acquire or take not more than \$100 million of such short-term debt of GENCO, and for GENCO to purchase, acquire or take not more than \$100 million of such short-term debt of SCE&G; and (iii) for SCANA to make capital contributions to, and/or acquire equity securities of, SCE&G and GENCO in amounts not to exceed \$200 million (as to SCE&G) and \$100 million (as to GENCO).

*Comment Date:* 5 p.m. Eastern Time on January 13, 2006.

**3. Xcel Energy Services Inc.**

[Docket Nos. EC06-40-000 and ER06-320-000]

Take notice that on December 13, 2005, Xcel Energy Services Inc., on behalf of Southwestern Public Service Company, submitted pursuant to sections 203 and 205 of the Federal Power Act, respectively: (i) An application for authorization for the sale of certain jurisdictional electrical transmission assets located in the states of Oklahoma and Kansas, and in and around the city of Texhoma, Texas, to Tri-County Electric Cooperative, Inc., an Oklahoma Electric Cooperative; and (ii) a request for approval of a proposed rate schedule for the sale of full requirements power and energy to Tri-County Electric Cooperative, Inc.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

**4. Aquila, Inc. and Mid-Kansas Electric Company**

[Docket No. EC06-46-000]

Take notice that on December 19, 2005, Aquila, Inc. (Aquila) and Mid-Kansas Electric Company (MKEC) filed with the Federal Energy Regulatory Commission an application under section 203 of the Federal Power Act seeking approval of a transaction wherein Aquila will sell its Kansas Electric Network to MKEC. Aquila and MKEC seek Commission approval by April 17, 2006.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

**5. Westar Energy, Inc.; ONEOK Energy Services Company, L.P.**

[Docket No. EC06-48-000]

Take notice that on December 21, 2005, Westar Energy, Inc. and ONEOK Energy Services Company, L.P. (collectively, Applicants), filed with the Federal Energy Regulatory Commission an application pursuant to section 203 of the Federal Power Act for authorization for the disposition of jurisdictional assets related to ONEOK ESC's proposed: (1) Sale to Westar Energy of an approximately 300 MW single cycle combustion turbine generating facility and associated transmission facilities located in Logan County, Oklahoma; and (2) transfer to Westar Energy of a wholesale power sales contract that gives the Oklahoma Municipal Power Authority the right to purchase up to 75 MW of the output of the Facility, all as more fully described in the Application. The Applicants have requested confidential treatment of the



asset purchase agreement related to the proposed transaction and certain workpapers supporting the Application.

*Comment Date:* 5 p.m. eastern time on January 13, 2006.

**6. Atlantic City Electric Company; Duquesne Light Holdings, Inc.**

[Docket No. EC06-49-000]

Take notice that on December 23, 2005, Atlantic City Electric Company and Duquesne Light Holdings, Inc. (collectively, Applicants) pursuant to section 203 of the Federal Power Act, request authorization for Atlantic to transfer to DL Holdings or to one or more of its direct or indirect wholly-owned subsidiaries minority undivided interest in certain facilities associated with the Keystone Electric Generating Station and the Conemaugh Electric Generating Station.

*Comment Date:* 5 p.m. eastern time on January 17, 2006.

**7. Hardee Power Partners Limited**

[Docket No. EG06-22-000]

Take notice that on December 15, 2005, Hardee Power Partners Limited filed with the Commission an application for redetermination of exempt wholesale generator status pursuant to part 365 of the Commission's regulations.

*Comment Date:* 5 p.m. eastern time on January 5, 2006.

**8. Sweetwater Wind 3 LLC**

[Docket No. EG06-23-000]

Take notice that on December 20, 2005, Sweetwater Wind 3 LLC, a Delaware limited liability company (SWW3), filed with the Federal Energy Regulatory Commission an application for determination of exempt wholesale generator status pursuant to part 365 of the Commission's regulations.

SWW3 states that it intends to operate a 135-MW wind powered generation facility currently under construction near Sweetwater, Nolan County, Texas. SWW3 further states that when completed, the electric energy produced by the facility will be sold into the wholesale power market of the Electric Reliability Council of Texas and is expected to begin commercial operation by December 31, 2005.

*Comment Date:* 5 p.m. eastern time on January 11, 2006.

**9. Elkem Metals Company—Alloy L.P.**

[Docket No. EG06-24-000]

Take notice that on December 20, 2005, Elkem Metals Company—Alloy L.P. submits for filing its application for determination of exempt wholesale generator status.

*Comment Date:* 5 p.m. eastern time on January 11, 2006.

**10. Granite State Hydropower Association, Inc. and Vermont Independent Power Producers Assoc.**

[Docket No. EL06-26-000]

Take notice that on December 12, 2005, Granite State Hydropower Association, Inc. and Vermont Independent Power Producers Association (collectively, Petitioners) tendered for filing a Petition for Rulemaking seeking Commission action to promulgate regulations governing the procedures by which traditional utilities may seek to eliminate the mandatory purchase obligation required by the Public Utilities Regulatory Policies Act of 1978 as permitted by new section 210(m) of PURPA enacted as part of the Energy Policy Act of 2005.

*Comment Date:* 5 p.m. eastern time on January 31, 2006.

**11. City of Vernon, California**

[Docket No. EL06-32-000]

Take notice that on December 15, 2005, the City of Vernon, California (Vernon) tendered for filing its revision to its Transmission Revenue Balancing Account Adjustment to be effective in calendar year 2006. Vernon request an effective date of January 1, 2006.

*Comment Date:* 5 p.m. eastern time on January 5, 2006.

**12. City of Banning, California**

[Docket No. EL06-33-000]

Take notice that on December 16, 2005, the City of Banning, California (Banning) tendered for filing its third annual revision to its Transmission Revenue Balancing Account Adjustment. Banning request an effective date of January 1, 2006.

*Comment Date:* 5 p.m. eastern time on January 6, 2006.

**13. City of Pasadena, California**

[Docket No. EL06-34-000]

Take notice that on December 21, 2005, the City of Pasadena, California (Pasadena), tendered for filing its first annual revision to its Transmission Revenue Balancing Account Adjustment. Pasadena request an effective date as January 1, 2006.

*Comment Date:* 5 p.m. eastern time on January 11, 2006.

**14. Tampa Electric Company; TECO EnergySource, Inc.; Tampa Electric Co., et al.**

[Docket Nos. ER99-2342-008; ER96-1563-025; EL05-68-002]

Take notice that on December 19, 2005, Tampa Electric Co., TECO

EnergySource, Inc. and Tampa Electric Co. et al., tender for filing their acceptance of the mitigation and conditions imposed in the November 17 Order plus revision to Tampa Electric's market-based rate tariffs, FERC Electric Tariff, Original Volume Nos. 5 and 6.

*Comment Date:* 5 p.m. eastern time on January 9, 2006.

**15. New York Independent System Operator Inc.**

[Docket No. ER01-3001-013]

Take notice that on December 15, 2005, the New York Independent System Operator, Inc. (NYISO) submits its sixth Biannual report on Demand Response Programs and status of new generation resources in the New York Control Area.

*Comment Date:* 5 p.m. eastern time on January 5, 2006.

**16. North American Energy Credit and Clearing-Delivery LLC**

[No. ER06-326-000]

Take notice that on December 13, 2005, North American Energy Credit and Clearing-Delivery LLC petition the Commission for acceptance of 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.

*Comment Date:* 5 p.m. eastern time on January 5, 2006.

**17. Morenci Water & Electric Company**

[Docket No. OA04-2-000]

Take notice that on December 13, 2005, Morenci Water & Electric Company states that it is not a public utility under section 201(e) of the Federal Power Act and, thus, not subject to regulation of filing Form 1 and Form 3-Q and not subject to recordkeeping or reporting requirements.

*Comment Date:* 5 p.m. eastern time on January 6, 2006.

**Standard Paragraph**

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 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 notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to



serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible online at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Nora E. Donovan,  
Acting Secretary.

[FR Doc. E5-8301 Filed 1-4-06; 8:45 am]

BILLING CODE 6717-01-P

## ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2005-0509, FRL-8019-3]

**Agency Information Collection Activities: Proposed Collection; Comment Request; Acid Rain Program, EPA ICR Number 1633.14, OMB Control Number 2060-0258**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 et seq.), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on June 30, 2006. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

**DATES:** Comments must be submitted on or before March 6, 2006.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2005-0509, by one of the following methods:

- [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.

- **Email:** [a-and-r-docket@epamail.epa.gov](mailto:a-and-r-docket@epamail.epa.gov).

- **Fax:** 202-566-1741.

- **Mail:** Air and Radiation Docket and Information Center, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

- **Hand Delivery:** Environmental Protection Agency, EPA Docket Center (EPA/DC), Room B102, 1301 Constitution Ave., NW., Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

**Instructions:** Direct your comments to Docket ID No. EPA-HQ-2005-0509. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov) your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. 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. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

**FOR FURTHER INFORMATION CONTACT:** Kenon Smith, Clean Air Markets Division, Office of Air and Radiation, (6204J), Environmental Protection Agency, 1200 Pennsylvania Ave., NW.,

Washington, DC 20460; telephone number: 202-343-9164; fax number: 202-343-2361; email address: [smith.kenon@epa.gov](mailto:smith.kenon@epa.gov).

### SUPPLEMENTARY INFORMATION:

#### How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-OAR-2005-0509, which is available for online viewing at [www.regulations.gov](http://www.regulations.gov), or in person viewing at the Air and Radiation Docket in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202-566-1744, and the telephone number for the Air and Radiation Docket is 202-566-1742.

Use [www.regulations.gov](http://www.regulations.gov) to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the docket ID number identified in this document.

#### What Information Is EPA Particularly Interested In?

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

- (i) Evaluate 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;
- (ii) evaluate 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;
- (iii) enhance the quality, utility, and clarity of the information to be collected; and
- (iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork

burden for very small businesses affected by this collection.

#### What Should I Consider When 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 and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of 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 the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under DATES.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and Federal Register citation.

#### What Information Collection Activity or ICR Does This Apply to?

*Affected entities:* Entities potentially affected by this action are those which participate in the Acid Rain Program.

*Title:* Acid Rain Program.

*ICR numbers:* EPA ICR No. 1633.14, OMB Control No. 2060-0258.

*ICR status:* This ICR is currently scheduled to expire on June 30, 2006. 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 title 40 of the CFR, after appearing in the Federal Register when approved, are listed in 40 CFR part 9, are displayed either by publication in the Federal Register or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* The Acid Rain Program was established under Title IV of the 1990 Clean Air Act Amendments. The program calls for major reductions of the pollutants that cause acid rain while establishing a new approach to environmental management. This information collection is necessary to implement the Acid Rain Program. It includes burden hours associated with developing and modifying permits, transferring allowances, obtaining allowances from the conservation and

renewable energy reserve, monitoring emissions, participating in the annual auctions, completing annual compliance certifications, participating in the Opt-in program, and complying with NO<sub>x</sub> permitting requirements. Most of this information collection is mandatory under 40 CFR parts 72-78. Some parts of it are voluntary or to obtain a benefit, such as participation in the annual auctions under 40 CFR part 73, subpart E. 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.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 91 hours per response. 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 which have subsequently changed; 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.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

*Estimated total number of potential respondents:* 1,450.

*Frequency of response:* Varies by task.

*Estimated total average number of responses for each respondent:* 12.

*Estimated total annual burden hours:* 1,600,807 hours.

*Estimated total annual costs:* \$256,342,000. This includes an estimated burden cost of \$84,373,000 and an estimated cost of \$171,969,000 for capital investment or maintenance and operational costs.

#### What Is the Next Step in the Process for This ICR?

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another Federal Register notice

pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: December 28, 2005.

**Richard Haeuber,**

*Acting Director, Clean Air Markets Division, Office of Air and Radiation.*

[FR Doc. E5-8315 Filed 1-4-06; 8:45 am]

BILLING CODE 6560-50-P

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## FEDERAL ELECTION COMMISSION

### Sunshine Act Notices

**DATE AND TIME:** Tuesday, January 10, 2006 at 10 a.m.

**PLACE:** 999 E Street, NW., Washington, DC.

**STATUS:** The meeting will be closed to the public.

**ITEMS TO BE DISCUSSED:** Compliance matters pursuant to 2 U.S.C. 437g. Audits conducted pursuant to 2 U.S.C. 437g, 438(b), and Title 26, U.S.C. Internal personnel rules and procedures or matters affecting a particular employee.

**DATE AND TIME:** Thursday, January 12, 2006 at 10 a.m.

**PLACE:** 999 E Street, NW., Washington, DC (ninth floor).

**STATUS:** This meeting will be open to the public.

**ITEMS TO BE DISCUSSED:** Correction and Approval of Minutes. Final Rules and Explanation and Justification for the Definition of "Agent." Routine Administrative Matters.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert Biersack, Press Officer, Telephone (202) 694-1220.

**Mary W. Dove,**

*Secretary of the Commission.*

[FR Doc. 06-117 Filed 1-3-06; 2:54 pm]

BILLING CODE 6715-01-M

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## FEDERAL MARITIME COMMISSION

### Notice of Agreements Filed

The Commission hereby gives notice of the filing of the following agreements under the Shipping Act of 1984. Interested parties may submit comments on an agreement to the Secretary, Federal Maritime Commission, Washington, DC 20573, within ten days of the date this notice appears in the Federal Register. Copies of agreements

are available through the Commission's Office of Agreements (202-523-5793 or [tradeanalysis@fmc.gov](mailto:tradeanalysis@fmc.gov)).

*Agreement No.:* 011223-033.

*Title:* Transpacific Stabilization Agreement.

*Parties:* APL Co. Pte. Ltd./American President Lines, Ltd.; COSCO Container Lines Company Ltd.; Evergreen Marine Corporation (Taiwan) Ltd.; Hanjin Shipping Co., Ltd.; Hapag-Lloyd Container Line GmbH; Hyundai Merchant Marine Co., Ltd.; Kawasaki Kisen Kaisha, Ltd.; Mitsui O.S.K. Lines, Ltd.; Nippon Yusen Kaisha; Orient Overseas Container Line Limited; and Yangming Marine Transport Corp.

*Filing Party:* David F. Smith, Esq.; Sher & Blackwell LLP, 1850 M Street, NW., Suite 900, Washington, DC 20036.

*Synopsis:* The amendment reflects the withdrawal of CMA-CGM S.A. from the agreement effective January 1, 2006.

*Agreement No.:* 011407-009.

*Title:* Australia/United States ContainerLine Association.

*Parties:* Hamburg-Süd; P&O Nedlloyd Limited; Australia-New Zealand Direct Line; and CP Ships USA, LLC.

*Filing Party:* Wayne R. Rohde, Esq.; Sher & Blackwell, LLP, 1850 M Street, NW., Suite 900, Washington, DC 20036.

*Synopsis:* The amendment clarifies the parties' authority to declare tariff rates, rules, and regulations to be "open."

*Agreement No.:* 011926.

*Title:* Transpacific Space Charter Agreement.

*Parties:* CMA-CGM, S.A. and COSCO Container Lines Co., Ltd.

*Filing Party:* Paul M. Keane, Esq.; Cichanowicz, Callan, Keane, Vengrow & Textor, LLP, 61 Broadway, Suite 3000, New York, NY 10006-2802.

*Synopsis:* The agreement authorizes COSCO to charter vessel space to CMA-

CGM between ports in China and the port of Long Beach, CA.

*Agreement No.:* 011927.

*Title:* LT/Hatsu Slot Charter Agreement.

*Parties:* Lloyd Triestino di Navigazione S.p.A. ("LT"); and Hatsu Marine Ltd. ("Hatsu").

*Filing Party:* Paul M. Keane, Esq.; Cichanowicz, Callan, Keane, Vengrow & Textor, LLP, 61 Broadway, Suite 3000, New York, NY 10006-2802.

*Synopsis:* Pursuant to the agreement, Hatsu will charter 100 slots from LT between U.S. East Coast ports in the Portland, Maine/Key West, Florida range and ports in the Western Mediterranean and on the Atlantic Coast of the Iberian Peninsula.

*Agreement No.:* 011928.

*Title:* Maersk Line/CP Ships Slot Charter Agreement.

*Parties:* CP Ships (UK) Limited/CP Ships USA LLC ("CP Ships") and A.P. Moller-Maersk A/S, trading under the name of Maersk Line ("Maersk").

*Filing Party:* Wayne R. Rohde, Esq.; Sher & Blackwell LLP, 1850 M Street, NW., Suite 900, Washington, DC 20036.

*Synopsis:* The agreement would authorize the charter of space from Maersk to CP Ships between ports on the U.S. Atlantic Coast and ports in Australia, New Zealand, North Europe, Jamaica, and Panama. It would also authorize the parties to engage in a limited range of cooperative activities in connection with the space charter.

*Agreement No.:* 011929.

*Title:* Hapag-Lloyd/Zim Mediterranean Slot Exchange Agreement.

*Parties:* Hapag-Lloyd Container Line GmbH and Zim Integrated Shipping Services, Ltd.

*Filing Party:* Wayne R. Rohde, Esq.; Sher & Blackwell LLP, 1850 M Street, NW., Suite 900, Washington, DC 20036.

*Synopsis:* The agreement would authorize the parties to exchange space on their respective services operating between ports on the U.S. Atlantic and Gulf Coasts and ports in Greece, Israel, Italy, Malta, and Spain.

*Agreement No.:* 201167.

*Title:* Bi-State Public Marine Terminal Discussion Agreement.

*Parties:* South Carolina State Ports Authority and Georgia Ports Authority.

*Filing Party:* Warren L. Dean, Jr., Esq.; Thompson Coburn LLP, 1909 K Street, NW., Washington, DC 20006-1167.

*Synopsis:* The agreement would authorize the parties to discuss, among other things, terminal rates, charges, rules, conditions of service, terminal congestion, and methods for relieving terminal congestion. The parties requested expedited review.

By Order of the Federal Maritime Commission.

Dated: December 29, 2005.

**Bryant L. VanBrakle,**  
Secretary.

[FR Doc. E5-8325 Filed 1-4-06; 8:45 am]

BILLING CODE 6730-01-P

## FEDERAL MARITIME COMMISSION

### Ocean Transportation Intermediary License Reissuances

Notice is hereby given that the following Ocean Transportation Intermediary licenses have been reissued by the Federal Maritime Commission pursuant to section 19 of the Shipping Act of 1984, as amended by the Ocean Shipping Reform Act of 1998 (46 U.S.C. app. 1718) and the regulations of the Commission pertaining to the licensing of Ocean Transportation Intermediaries, 46 CFR part 515.

License No.	Name/address	Date reissued
018155N	Coastar Freight Services, Inc., 10370 Slusher Drive, #2, Santa Fe Springs, CA 90670 ..	September 25, 2005.
015507N	Ampac Freight Services, Inc., 3234 Arden Road, Hayward, CA 94545 .....	October 26, 2005.
017926F	GQ Logistics, Inc., 11222 La Cienega Blvd., Suite 510, Inglewood, CA 90304 .....	October 9, 2005.
017848F	K2 International, LLC dba All-Ways Cargo Services, 2782 Eagandale Blvd., Eagan, MN 55121.	October 9, 2005.
019033N	Hua Feng (USA) Logistics Inc., 11222 S. La Cienega Blvd., Suite 608, Inglewood, CA 90304.	October 15, 2005.
003444F	Kosmo International, Inc., 2125 Center Avenue, Suite 207A, Fort Lee, NJ 07024 .....	October 15, 2005.
017081N	Speedex International, Inc., 2665 E. Del Amo Blvd., Rancho Dominguez, CA 90221 .....	November 30, 2005.
000571F	Forwarding Services, Inc., 811 Washington Road, Suite 2, Parlin, NJ 08859 .....	November 7, 2005.

**Peter J. King,**

Deputy Director, Bureau of Certification and Licensing.

[FR Doc. E5-8321 Filed 1-4-06; 8:45 am]

BILLING CODE 6730-01-P

**FEDERAL MARITIME COMMISSION****Ocean Transportation Intermediary License Revocations**

The Federal Maritime Commission hereby gives notice that the following Ocean Transportation Intermediary licenses have been revoked pursuant to section 19 of the Shipping Act of 1984 (46 U.S.C. app. 1718) and the regulations of the Commission pertaining to the licensing of Ocean Transportation Intermediaries, effective on the corresponding date shown below:

*License Number:* 004059F.

*Name:* Pacific Multi-Modal, Inc.

*Address:* 840 West 12th Street, Long Beach, CA 90813.

*Date Revoked:* November 30, 2005.

*Reason:* Failed to maintain a valid bond.

*License Number:* 018249F.

*Name:* JJB Trucking Services Corp. & Shipping.

*Address:* 333 N. Broad Street, Elizabeth, NJ 07200.

*Date Revoked:* December 2, 2005.

*Reason:* Failed to maintain a valid bond.

*License Number:* 003722F.

*Name:* Falcon Transportation & Forwarding Corp.

*Address:* 500 Bi-County Boulevard, Suite 213N, Farmingdale, NY 11735.

*Date Revoked:* November 20, 2005.

*Reason:* Failed to maintain a valid bond.

*License Number:* 018793NF.

*Name:* Berr International, Inc.

*Address:* 8344 NW 30 Terrace, Miami, FL 33122.

*Date Revoked:* December 17, 2005.

*Reason:* Failed to maintain a valid bond.

*License Number:* 001227F.

*Name:* Fast Shipping Co.

*Address:* P.O. Box 523363, Miami, FL 33152.

*Date Revoked:* November 23, 2005.

*Reason:* Surrendered license voluntarily.

*License Number:* 015593NF.

*Name:* Cross Trans Service USA, Inc.

*Address:* 1480 Elmhurst Road, Elk Grove, IL 60007.

*Date Revoked:* December 18, 2005.

*Reason:* Failed to maintain a valid bond.

*License Number:* 016626NF.

*Name:* Touchstone Shipping & Logistics, Inc. dba JBS Transport Line.

*Address:* 17350 SH 249, Suite 320, Houston, TX 77064.

*Date Revoked:* November 25, 2005.

*Reason:* Failed to maintain a valid bond.

**Peter J. King,**

Deputy Director, Bureau of Certification and Licensing.

[FR Doc. E5-8314 Filed 1-4-06; 8:45 am]

BILLING CODE 6730-01-P

**FEDERAL RESERVE SYSTEM****Formations of, Acquisitions by, and Mergers of Bank Holding Companies**

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The application also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States. Additional information on all bank holding companies may be obtained from the National Information Center Web site at <http://www.ffiec.gov/nic/>.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than January 31, 2005.

**A. Federal Reserve Bank of Atlanta**  
(Andre Anderson, Vice President) 1000 Peachtree Street, NE., Atlanta, Georgia 30303:

1. *Whitney Holding Corporation*, New Orleans, Louisiana, to merge with First National Bancshares, Inc., and thereby indirectly acquire 1st National Bank and Trust, both of Bradenton, Florida.

Board of Governors of the Federal Reserve System, December 30, 2005.

**Jennifer J. Johnson,**

Secretary of the Board.

[FR Doc. E5-8302 Filed 1-4-06; 8:45 am]

BILLING CODE 6210-01-S

**DEPARTMENT OF HEALTH AND HUMAN SERVICES****Agency for Healthcare Research and Quality****Medicare Prescription Drug, Improvement, and Modernization Act of 2003; Section 1013: Identification of Priority Topics for Effective Health Care Research**

**AGENCY:** Agency for Healthcare Research and Quality (AHRQ), HHS.

**ACTION:** Notice of invitation to submit research recommendations.

**SUMMARY:** The U.S. Department of Health and Human Services invites suggestions from interested organizations and knowledgeable individuals regarding the highest priorities for research, demonstration, and evaluation projects to support and improve the Medicare, Medicaid, and State Children Health Insurance (SCHIP) programs.

The research and other activities undertaken and authorized by the above-captioned or above referenced statutory provision may address:

1. The outcomes, comparative clinical effectiveness, and appropriateness of health care items and services (including prescription drugs); and
2. Strategies for improving the efficiency and effectiveness of such programs, including the ways in which such items and services are organized, managed, and delivered under such programs.

The statute:

- a. Requires the establishment of a priority setting process for identifying the most important topics to address;
- b. Establishes a timetable for development of an initial priority list and completion of the research; and
- c. Requires ongoing consultation with relevant stakeholders.

To review the text of section 1013 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, please visit *Section 1013. Research on Outcomes of Health Care Items and Services* (PDF 21.7 KB) or <http://www.medicare.gov/medicarereform/108s1013.htm> (text).

Current priority conditions being studied focus on topics particularly relevant to Medicare beneficiaries. The



next set of priority conditions will be expanded to include conditions relevant to the Medicaid and SCHIP programs.

The current priority conditions are:

- Arthritis and non-traumatic joint disorders.
- Cancer.
- Chronic obstructive pulmonary disease and asthma.
- Dementia including Alzheimer's disease.
- Depression and other mood disorders.
- Diabetes mellitus.
- Ischemic heart disease.
- Peptic ulcer disease and dyspepsia.
- Pneumonia.
- Stroke and hypertension.

**DATES:** Research recommendations for the next priority conditions list must be received by March 1, 2006.

**ADDRESSES:** Recommendations for consideration and possible inclusion in the next priority list may be submitted electronically to the Effective Health Care Program Web site, <http://www.EffectiveHealthCare.ahrq.gov>, or e-mailed to [EffectiveHealthCare@ahrq.gov](mailto:EffectiveHealthCare@ahrq.gov).

Recommendations may also be mailed to: AHRQ Effective Health Care Program c/o Center for Outcomes and Evidence, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850.

All comments will be posted in an electronic reading room at: <http://www.EffectiveHealthCare.ahrq.gov>.

**FOR FURTHER INFORMATION CONTACT:** Effective Health Care Program at (301) 427-1502 or [EffectiveHealthCare@ahrq.gov](mailto:EffectiveHealthCare@ahrq.gov).

More information about the Effective Health Care Program is available at <http://www.EffectiveHealthCare.ahrq.gov>.

**SUPPLEMENTARY INFORMATION:**

Recommendations for research that are made by the Centers for Medicare & Medicaid Services (CMS), the States, and other stakeholders will be reviewed and prioritized by a steering committee composed of representatives from the following components of the U.S. Department of Health and Human Services:

- Office of the Secretary.
- Assistant Secretary for Planning and Evaluation (ASPE).
- Assistant Secretary for Budget, Technology, and Finance (ASBTF).
- Centers for Medicare & Medicaid Services (CMS).
- Food and Drug Administration (FDA).
- Agency for Healthcare Research and Quality (AHRQ, the agency designated by the statute to carry out the research).

If issues arise for which the expertise of other components of the U.S. Department of Health and Human Services or other Federal departments would be helpful in prioritizing suggested research topics, representatives from those entities will be added to, or consulted by the Steering Committee as warranted.

Steering Committee staff will prepare a preliminary ranking of suggested topics for study taking into consideration factors suggested by the terms of Section 1013(a)(2)(C): Health care items or services that impose high costs on Medicare, Medicaid, or SCHIP programs; those which may be underutilized or overutilized; and those which may significantly improve the prevention, treatment, or cure of diseases and conditions which impose high direct or indirect costs on patients or society.

**Stakeholder Consultation**

The statute requires a broad, ongoing process of consultation with relevant stakeholders. Because two of the programs addressed by the statute are administered by the States, the Department will work with the States to develop an effective process for identifying their priority recommendations for research.

To meet the requirement for ongoing consultation with other stakeholders, the Department will issue a specific solicitation for research recommendations every year and will permit stakeholders to submit research recommendations throughout the year.

Dated: December 28, 2005.

**Carolyn M. Clancy,**  
Director.

[FR Doc. 06-69 Filed 1-4-06; 8:45 am]

BILLING CODE 4160-90-M

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Centers for Disease Control and Prevention**

**Statement of Organization, Functions, and Delegations of Authority**

Part C (Centers for Disease Control and Prevention) of the Statement of Organization, Functions, and Delegations of Authority of the Department of Health and Human Services (45 FR 67772-76, dated October 14, 1980, and corrected at 45 FR 69296, October 20, 1980, as amended most recently at 70 FR 72842-72843, dated December 7, 2005) is amended to reflect the reorganization of the Office of Health and Safety, within the Office of

the Director, Centers for Disease Control and Prevention.

Section C-B, Organization and Functions, is hereby amended as follows:

Delete in its entirety the titles and functional statements for the *Office of Health and Safety (CA1)*.

After the mission statement for the Management Information Systems Office (CAJN), Office of the Chief Operating Officer (CAJ), insert the following:

*Office of Health and Safety (CAJP).*  
The key responsibility of the Office of Health and Safety (OHS) of the Centers for Disease Control and Prevention (CDC) is to protect the welfare of workers as they carry out their public health mission. By creating a safe, healthful workplace environment, by preventing work-related injury and illness, and by promoting safe work practices, the office improves worker morale, increases efficiency and contributes to the creation of sound public health science. OHS also serves as a significant resource of subject matter expertise for the national and international community in the field of biosafety, and works with key partners, such as the World Health Organization and others, on critical health and safety issues around the globe.

More specifically, the OHS: (1) Provides leadership and service for the CDC Health and Safety Program (HSP) to proactively ensure safe and healthy workplaces at CDC worksites for CDC employees, contractors, and visitors (including deployed personnel), and to protect the environment and communities adjacent to CDC-owned and leased facilities; (2) promotes healthy and safe work practices to prevent injury and illness, and provides occupational medical, employee assistance, and worksite health promotion/lifestyle services; (3) provides advice and counsel to the CDC Director and other senior OD and national centers' staff on health, safety, and environment-related matters, and to individuals and organizations nationally and internationally, as requested; (4) provides advice, counsel, and direct support services to supervisors and employees on health, safety, and environment-related matters; (5) assures compliance with applicable federal, state, and local health, safety, and environmental (HSE) laws and regulations; (6) provides liaison with both CDC safety officers and staff, and other partners such as Health and Human Services (HHS) health and safety officials, Occupational Safety and Health Administration (OSHA), Environmental Protection Agency



(EPA), Nuclear Regulatory Commission (NRC), and other governmental and non-governmental organizations on HSE issues; (7) ensures updating and critical review of the *CDC/NIH Biosafety in Microbiological and Biomedical Laboratories*; and (8) serves as a World Health Organization Collaborating Center for Applied Biosafety Programs and Training.

*Office of the Director (CAJP1).* (1) Serves as the principal advisor to the Director, CDC, with responsibility for the CDC HSP; (2) plans, identifies, and requests required resources; directs, manages, and evaluates the operations and programs of OHS; (3) assures coordination and cooperation among OHS staff; (4) provides advice and counsel to the CDC Director, the Chief Operating Officer, and other senior OD and NC officials on workplace HSE matters; (5) assures compliance with applicable federal, state, and local HSE laws, regulations, and policies; (6) develops and implements new HSE injury/illness prevention programs indicated by surveys, incident investigations, reports of unsafe/unhealthful working conditions and other means; (7) assures cross-cutting, collaborative team functionality in building and maintaining a successful safety program; (8) assures OHS coordination with the Office of Security and Emergency Preparedness, the Building and Facilities Office, and other staff and staff service offices on HSE matters; (9) serves as Executive Secretary for the CDC Health and Safety Advisory Board; (10) serves as Executive Secretary for the CDC Health and Safety Committee; (11) provides liaison with both CDC safety officers and staff, and other partners such as HHS, OSHA, EPA, NRC, and other governmental and non-governmental organizations on HSE issues; (12) when asked, consults with individuals and organizations nationally and internationally on issues such as laboratory safety, biosafety, occupational health issues in the biomedical laboratory and animal care setting, and deployment health and safety; (13) maintains oversight and support for the CDC safety committees in operational components with representation, attendance, interaction and collaboration, and collaboration with non-Atlanta health and safety officers and staff; and (14) provides an annual report on the CDC HSE and other reports required or requested by CDC management officials, HHS, and regulatory agencies.

Dated: December 22, 2005.

**William H. Gimson,**  
Chief Operating Officer, Centers for Disease Control and Prevention (CDC).

[FR Doc. 06-58 Filed 1-4-06; 8:45 am]

BILLING CODE 4160-18-M

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR-5016-N-02]

### Public Housing Operating Fund Variable Coefficients for Public Housing Operating Fund Project Expense Levels; Correction

**AGENCY:** Office of the Assistant Secretary for Public and Indian Housing, HUD.

**ACTION:** Notice; correction.

**SUMMARY:** On December 28, 2005, HUD published a notice to provide supplemental information to public housing agencies (PHAs) and members of the public regarding HUD's method of calculating public housing operating subsidy in accordance with the Public Housing Operating Fund Program regulation at 24 CFR part 990. HUD inadvertently left out appendices A-C from that publication. This notice republishes the December 28, 2005, notice in its entirety and includes the appendices.

**DATES:** *Effective Date:* January 27, 2006.

**FOR FURTHER INFORMATION CONTACT:** The Office of Public and Indian Housing, Real Estate Assessment Center (PIH-REAC), Attention: Wanda Funk, Department of Housing and Urban Development, Real Estate Assessment Center, 550 Twelfth Street, SW., Suite 100, Washington, DC 20410; telephone the PIH-REAC Technical Assistance Center at (888) 245-4860 (this is a toll free number). Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Information Relay Service at (800) 877-8339. Additional information is available from the PIH-REAC Web site at <http://www.hud.gov/react/>.

**SUPPLEMENTARY INFORMATION:** On December 28, 2005, HUD published (70 FR 76964) a notice to provide supplemental information to public housing agencies (PHAs) and members of the public regarding HUD's method of calculating public housing operating subsidy in accordance with the Public Housing Operating Fund Program regulation at 24 CFR part 990. HUD inadvertently left out appendices A-C from that publication. This correction notice republishes the December 28,

2005, notice in its entirety and includes appendices A, B, and C.

Dated: December 29, 2005.

**Aaron Santa Anna,**  
Assistant General Counsel for Regulations.

## Department of Housing and Urban Development

[Docket No. FR-5016-N-01]

### Public Housing Operating Fund; Variable Coefficients for Public Housing Operating Fund Project Expense Levels

**Agency:** Office of the Assistant Secretary for Public and Indian Housing, HUD.

**Action:** Notice.

**Summary:** This notice provides supplemental information to public housing agencies (PHAs) and members of the public regarding HUD's method of calculating public housing operating subsidy in accordance with the Public Housing Operating Fund Program regulation at 24 CFR part 990. Subpart C of the final rule describes how formula expenses will be calculated under the new Operating Fund Formula. This notice explains the computation of the project expense level (PEL), which is one factor in the formula expenses component of the Operating Fund Formula.

**Date:** *Effective Date:* January 27, 2006.

**For Further Information Contact:** The Office of Public and Indian Housing, Real Estate Assessment Center (PIH-REAC), Attention: Wanda Funk, Department of Housing and Urban Development, Real Estate Assessment Center, 550 Twelfth Street, SW., Suite 100, Washington, DC 20410; telephone the PIH-REAC Technical Assistance Center at (888) 245-4860 (this is a toll free number). Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Information Relay Service at (800) 877-8339. Additional information is available from the PIH-REAC Web site at <http://www.hud.gov/react/>.

**Supplementary Information:**

### Purpose of the Notice

The purpose of this notice is to provide additional information about the computation of the operating subsidy under the revised Operating Fund Program rule. HUD published a final rule, Revisions to the Public Housing Operating Fund Program (79 FR 54983), in the *Federal Register* on September 19, 2005, revising the Department's Public Housing Operating Fund Program regulation at 24 CFR part 990 and adopting a final Operating Fund Formula for determining the

payment of operating subsidies to PHAs. The final rule, developed through negotiated rulemaking conducted in 2004, became effective November 18, 2005.

The new Operating Fund Formula for calculating operating subsidy is comprised of three major components. These three components are: eligible unit months, formula expenses, and formula income. The formula expense component, as described in subpart C of the final rule, consists of the project expense level (PEL), the utility expense level, and other formula expenses (add-ons). This notice provides a step-by-step description of the computation of the PEL. In the event that insufficient funds are available, as noted in the final rule at 24 CFR 990.210(c), HUD shall have discretion to revise, on a pro rata basis, the amounts of operating subsidy to be paid to PHAs.

#### Variables and Coefficient Values

In accordance with 24 CFR 990.165 of the final rule, HUD will calculate the PEL for each public housing project using the ten variables and associated coefficients from the Harvard University Graduate School of Design Cost Model (cost model). The PEL will be expressed as a per unit per month (PUM) amount.

The coefficient for each of the ten formula variables that determine a PEL is expressed in percentage terms. The proper coefficients applied to a particular variable for a project depend on the physical, demographic, or geographic characteristics of the project. Therefore, the coefficient that will be applied for each of the variables depends upon the characteristics of the project. The ten variables are listed in Table 1:

TABLE 1.—OPERATING SUBSIDY VARIABLES

No.	Variables
1	Size of Project.
2	Age of Property.
3	Unit Size (Bedroom Mix).
4	Building Type.
5	Occupancy Type.
6	Location.
7	Neighborhood Poverty Rate.
8	Percent of Households Assisted.
9	Ownership Type.
10	Geographic.

The coefficient values for variables one through nine are set forth in Appendix A. The value for the tenth coefficient, Geographic, is set forth in Appendix B.

In addition to the ten variables described above, the PEL calculation includes the application of what are

called "cost adjustments." There are four cost adjustments and they are:

(1) A national floor of \$200 PUM for elderly projects and of \$215 PUM for family projects.

(2) A national ceiling of \$420 PUM for all projects, except for projects owned by the New York City Housing Authority (NYCHA), which have a ceiling of \$480 PUM.

(3) When the calculated PEL is over \$325 PUM, the result is reduced by 4 percent, but it will not be reduced to less than \$325 PUM. Note: This step does not apply to NYCHA properties.

(4) The reduction in the amount of audit costs as a PUM reported for FY 2003.

All of the variables and the cost adjustments will yield a PEL for a project in year 2000 dollars. After the PEL in year 2000 dollars is created, it will be inflated using the HUD-determined annual inflation factor on Line A7 of the form HUD-52723, Operating Fund Calculation of Operating Subsidy, OMB Approval Number 2577-0029, expires June 30, 2006, from 2001, 2002, 2003, and 2004, to arrive at the initial PEL in year 2004 dollars. The initial PEL in 2004 dollars then will be adjusted annually beginning in 2005 by the HUD-determined local inflation factor (see 24 CFR 990.165).

#### Determination of Coefficients

For each PEL calculation, the proper coefficient for each variable will be determined as follows:

• *Size of Project.* The size of project is the total number of ACC units in the project.

• *Age of Property.* The age of the project is determined by the difference between the Date of Full Availability (DOFA) and December 31, 2000. When different projects are combined or buildings from different projects are combined to form a "new project," the age of the property will be the weighted average age of the different buildings in the new project based on their number of units (unit weighted average).

• *Unit Size (Bedroom Mix).* The unit size of a project is determined by the percentage of two, three, and four or more bedroom units in that project.

• *Building Type.* The building type is determined by the type of structure(s) that comprise the project. For example, a single family home is a detached/semi-detached building type. When there are different building types in one project (e.g., detached and row/townhouses), the building type is determined by the majority of the units in that project.

• *Occupancy Type.* The occupancy type is determined by the percentage of efficiency and one bedroom units in the project. If there are more than 50 percent efficiencies and one bedroom units, the project is considered senior. All other properties are considered family properties. When different projects are combined, or buildings from different projects are combined to form a "new project," the occupancy type will be the weighted average occupancy type of the different buildings in the new project based on their number of units (unit weighted average).

• *Location.* The location variable is based on the property census tract. The property is classified as within the central city of a Metropolitan Statistical Area (MSA), a non-central city area of an MSA, or a rural area.

• *Neighborhood Poverty Rate.* The neighborhood poverty rate for each project is taken from the 1990 Census, using the project address to determine the census tract. If buildings in a project are in different census tracts, the tract with the highest number of units determines the neighborhood poverty rate.

• *Percent of Households Assisted.* Although there are five categories within the cost model for the percentage of units within a project that are assisted, for purposes of the PEL calculations for public housing, all PHA projects will be considered to be 100 percent assisted.

• *Ownership Type.* The ownership type for all public housing projects is non-profit.

• *Geographic.* The geographic coefficient is taken from the table in Appendix A that provides a coefficient for each area listed.

#### The PEL Calculation Process

HUD will calculate the PEL for each project using the following steps in the order presented.

*Step 1:* For a given project, the proper coefficient for each of the ten variables from which the cost model is constructed is determined using Appendices A and B. The proper coefficient to be applied for each variable depends on the physical, demographic, or geographic characteristics of the project.

*Step 2:* Sum the coefficient values identified in step 1 for the following eight variables:

- Size of Project
- Age of Property
- Building Type
- Occupancy Type
- Location
- Neighborhood Poverty Rate
- Percent of Households Assisted

- Geographic

**Step 3:** Determine the coefficient value of the Unit Size (Bedroom Mix) variable by calculating the percentage of two, three, and four or more bedroom units in the property. The percentage of two, three, and four or more bedrooms units in the property is then multiplied by the applicable coefficient.

- The percentage of 2 bedroom units is multiplied by 17.61 percent, the coefficient for 2 bedroom units.

- The percentage of 3 bedroom units is multiplied by 37.65 percent, the coefficient for 3 bedroom units.

- The percentage of 4 or more bedroom units is multiplied by 48.73 percent, the coefficient for 4 bedroom units.

The resulting values for each bedroom size are then summed.

**Step 4:** Add the totals of steps 2 and 3 to 520.18 percent, the formula constant.

**Step 5:** Compute the exponent of the result of step 4. In Microsoft (MS) Excel, the formula for determining the exponent is: EXP (sum of coefficients). For example, if the result in step four is 575.6 percent, in MS Excel the exponent is determined by EXP (575.6 percent). For this example, the exponent would be 316.08 and it would be expressed as a dollar amount.

**Step 6:** Multiply the result from step 5 by the product of one plus the coefficient value of the Ownership Type variable. Because the ownership type of public housing is non-profit, the product of one plus the coefficient value of the Ownership Type variable (*i.e.*, non-profit adjustment) is 110 percent, or 1.10. This result is also expressed as a dollar amount.

**Step 7:** When the result of step 6 is greater than \$325, the result is reduced by 4 percent, but it will not be reduced to less than \$325. Note: This step does not apply to NYCHA properties. The dollar amount that results from step 7 represents the PEL before the floor and ceiling cost adjustments and before the application of the inflation factor.

**Step 8:** Apply the following floor and ceiling cost adjustments, as necessary:

- If the result of step 7 is less than \$200 and the project Occupancy Type is identified as senior, the result is raised to \$200.

- If the result of step 7 is less than \$215 and the project Occupancy Type is identified as family, the result is raised to \$215.

- If the result of step 7 is greater than \$420 and the project is not owned by the NYCHA, nor is the project NYCHA mixed finance rental housing, the result is decreased to \$420.

- If the result of step 7 is greater than \$480 and the project is either owned by the NYCHA, or is NYCHA mixed finance rental housing, the result is decreased to \$480.

**Step 9:** Subtract the PUM cost of the audit expenses for FY 2003 from the result of step 8. To determine the initial PEL, the PUM audit expenses are taken from Line A12 of the PHA's 2003 form HUD-52723, Operating Fund Calculation of Operating Subsidy, OMB Approval Number 2577-0029, expires June 30, 2006.

**Step 10:** Inflate the initial PEL from year 2000 dollars to 2004 dollars by multiplying the result of step 9 by the local annual inflation factors for the four intervening years (2001, 2002, 2003 and 2004) and round the result to the nearest penny from the third decimal place with a half a penny or more rounded up (*e.g.*, all values between \$206.005 and \$206.014, inclusive, would be rounded to \$206.01, and all values between \$206.015 and \$206.024, inclusive, would be rounded to \$206.02). The local annual inflation factors are found on Line 7 of the HUD-52723, Operating Fund Calculation of Operating Subsidy, OMB Approval Number 2577-0029, expires June 30, 2006, forms for those years. For example: assume the 2000 PEL is \$397.85 and the 2001 inflation factor is 1.019, the 2002 inflation factor is 1.023, the 2003 inflation factor is 1.015, and the 2004 inflation factor is 1.031.

(1) Multiply: 1.019 times 1.023 times 1.015 times 1.031. This equals 1.090874.

(2) Multiply: \$398.77 times 1.090874. This equals 435.0078.

(3) Round the result to the nearest penny. This equals \$435.01, which is the initial PEL in 2004 dollars.

The initial PEL in year 2004 dollars then will be adjusted annually by the HUD-determined local inflation factor beginning in FY 2005.

#### PHA PEL Calculation FFY 2007

In FFY 2007, HUD will fund operating subsidy at the PHA level by calculating a PHA's PEL using a weighted average of the PELs for each project in the PHA based on the number of units. Accordingly, in FFY 2007, the three following steps will be added to the ten steps described above in order to arrive at the PHA weighted average PEL.

**Step 11:** Multiply each project PEL by the number of ACC units in that property.

**Step 12:** Sum the amounts calculated in step 11 and divide that number by the total number of units in the PHA. The result is the weighted average 2004 PHA PEL that HUD will use to

determine the transition funding for each PHA.

**Step 13:** The PHA PEL for 2006 will be calculated by multiplying the 2004 PHA PEL by the HUD inflation factors for 2005, 2006, and 2007.

#### PHA PEL Calculation FFY 2008 and After

Beginning in FY 2008 and every fiscal year thereafter, HUD will calculate a PEL for each project and fund PHA operating subsidy on a project-by-project basis. Accordingly, beginning in FY 2008, the result in step 10 will be the PEL for each project.

#### PELs for "New" Asset Management Projects

For purposes of asset management, in accordance with subpart H of 24 CFR part 990 of the final rule, PHAs may either combine existing developments, divide existing developments, or combine some or all of the buildings from more than one existing development to create a new project. After these changes are made, HUD will calculate a PEL for the new project and, when applicable, for any existing developments based on the remaining buildings.

A. For each new project, the *Age of Property* variable will be a unit weighted average age of the buildings from the different developments. To determine the unit weighted average age of the buildings, HUD will:

(1) Calculate the age of each building in days from DOFA until December 31, 2000, using a 360-day year where each month has 30 days.

(2) Calculate the unit days for each building by multiplying the number of units in each building by the age in days for that building.

(3) Total the unit days for all buildings.

(4) Divide the total unit days by the total number of units in all of the buildings in the new project. Divide the result by 360 and round to the nearest whole number.

HUD will use the result as the applicable age coefficient for that project in accordance with the steps described, above, and shown in Appendix C. Further guidance on grouping projects for purpose of asset management will be provided through a PIH notice.

B. For each new project, the Occupancy Type variable will be a unit weighted average occupancy type of the different buildings in the project. HUD will:

(1) Compute the proportion of units that are in senior buildings by dividing the number of units in the senior

buildings by the total number of units in the new project;

(2) Multiply the result by the senior property coefficient, *i.e.*, -5.83; and

(3) Round the result to the nearest hundredth.

HUD will use the result as the occupancy type coefficient for the new project in accordance with the steps described, above, and shown in Appendix C.

#### **Moving-to-Work PHAs**

For the PHAs that are participating in the Moving-to-Work (MTW) Demonstration authorized under section 204 of the Omnibus Consolidated Rescissions and Appropriations Act of 1996, PELs will be determined in accordance with the steps set forth above. However, pursuant to 24 CFR 990.165(f), these PHAs may receive operating subsidy as provided in Attachment A of their MTW Agreements

executed prior to November 18, 2005, the effective date of the rule.

#### **Mixed Finance Developments**

For mixed finance developments that have either closed prior to November 18, 2005, or for which the PHA has filed documents in accordance with 24 CFR 941.606 (as amended prior to such date), the operating subsidy will be funded based on the higher of the new PEL or the former allowable expense level under the regulation that was in effect prior to November 18, 2005.

#### **Example**

A step-by-step example of a project PEL calculation and a PHA PEL calculation is set forth in Appendix C.

#### **Data Used for Calculations**

The project characteristics that HUD will use to calculate the PELs for all PHA properties in year 2000 dollars will be based on the Development field

information in the Public and Indian Housing Information Center (PIC) database. The date upon which HUD will extract the data from PIC for each year's subsidy calculation will be provided in an annual PIH notice.

#### **Environmental Impact**

This notice provides operating instructions and procedures in connection with activities under 24 CFR part 990 of the final rule, which has previously been subject to a required environmental review. Accordingly, under 24 CFR § 50.19(c)(4), this notice is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321).

Dated: December 9, 2005.

**Orlando J. Cabrera,**  
*Assistant Secretary for Public and Indian Housing.*

BILLING CODE 4210-33-P

## APPENDIX A

## Constant, Variables and Coefficients

Variable	Coefficient	Variable	Coefficient
<b><u>Model Constant</u></b>	520.18%	<b><u>Building Type</u></b>	
		Walk-Up/Garden	0.00%
<b><u>Size of Project</u></b>		Detached/Semi-Detached	-2.01%
0 to 149 Units	0.00%	Row/Townhouse	-0.23%
Over 149 Units	-1.47%	High-Rise/Mixed	-0.21%
		Scattered	0.00%
<b><u>Age of Property (DOFA)</u></b>		<b><u>Occupancy Type</u></b>	
0-8 years	0.00%	Family Property	0.00%
9 years	0.29%	Elderly Property	-5.83%
10 years	0.57%		
11 years	0.86%	<b><u>Location</u></b>	
12 years	1.15%	Metropolitan Central City	2.55%
13 years	1.43%	Metropolitan Non-Central City	0.00%
14 years	1.72%	Rural	0.00%
15 years	2.01%		
16 years	2.30%	<b><u>Neighborhood Poverty Rate</u></b>	
17 years	2.58%	0% to less than 20%	0.00%
18 years	2.87%	More than 20% to less than 30%	2.13%
19 years	3.64%	More than 30% to less than 40%	4.30%
20 years	4.41%	40% or more	6.60%
21 years	5.18%		
22 years	5.95%	<b><u>Percent of Households Assisted</u></b>	
23 years	6.72%	0	0.00%
24 years	7.32%	0 to 20	1.96%
25 years	7.92%	More than 20 to 80	2.25%
26 years	8.53%	More than 80 to less than 100	4.79%
27 years	9.13%	100 (assume for all PHA projects)	6.39%
28 or more years	9.73%		
<b><u>Unit Size (Bedroom Mix)</u></b>		<b><u>Ownership Type</u></b>	
Percent of 2 bedroom units	17.61%	Non-Profit (assume for all PHA projects)	10.00%
Percent of 3 bedroom units	37.65%	For Profit	0.00%
Percent of 4 or more bedroom units	48.73%	Limited Dividend	8.00%
Other	0.00%		



## APPENDIX B

## Geographic Coefficients

Area Name	State	Coeff
Anchorage	AK	13%
Rural (non-metropolitan)	AK	13%
Anniston	AL	-18%
Auburn-Opelika	AL	-18%
Decatur	AL	-18%
Dothan	AL	-18%
Florence	AL	-18%
Gadsden	AL	-18%
Huntsville	AL	-18%
Montgomery	AL	-18%
Tuscaloosa	AL	-18%
Birmingham	AL	-12%
Mobile	AL	-13%
Rural (non-metropolitan)	AL	-30%
Fayetteville-Springdale-Rogers	AR	-12%
Fort Smith	AR	-12%
Jonesboro	AR	-12%
Pine Bluff	AR	-12%
Little Rock-North Little Rock	AR	-11%
Rural (non-metropolitan)	AR	-25%
Flagstaff	AZ	-16%
Yuma	AZ	-16%
Phoenix-Mesa	AZ	0%
Tucson	AZ	-8%
Rural (non-metropolitan)	AZ	-19%
Riverside-San Bernardino	CA	9%
Ventura	CA	9%
Yolo	CA	2%
Oakland	CA	30%
San Jose	CA	30%
Santa Cruz-Watsonville	CA	30%
Santa Rosa	CA	30%
Vallejo-Fairfield-Napa	CA	30%
Los Angeles-Long Beach	CA	13%
Orange County	CA	16%
Sacramento	CA	0%
San Francisco	CA	30%
Bakersfield	CA	4%
Chico-Paradise	CA	4%
Fresno	CA	4%
Merced	CA	4%

Area Name	State	Coeff
Modesto	CA	4%
Redding	CA	4%
Salinas	CA	4%
San Diego	CA	4%
San Luis Obispo-Atascadero-Paso Robles	CA	4%
Santa Barbara-Santa Maria-Lompoc	CA	4%
Stockton-Lodi	CA	4%
Visalia-Tulare-Porterville	CA	4%
Yuba City	CA	4%
Rural (non-metropolitan)	CA	-15%
Boulder-Longmont	CO	1%
Greeley	CO	1%
Denver	CO	7%
Colorado Springs	CO	-4%
Fort Collins-Loveland	CO	-4%
Grand Junction	CO	-4%
Pueblo	CO	-4%
Rural (non-metropolitan)	CO	-19%
Bridgeport	CT	31%
Danbury	CT	31%
New Haven-Meriden	CT	31%
Stamford-Norwalk	CT	31%
Waterbury	CT	31%
Hartford	CT	19%
New London-Norwich	CT	19%
Rural (non-metropolitan)	CT	12%
Washington	DC	30%
Wilmington-Newark	DE	3%
Dover	DE	-15%
Rural (non-metropolitan)	DE	-19%
Fort Lauderdale	FL	12%
Miami	FL	12%
Daytona Beach	FL	4%
Fort Myers-Cape Coral	FL	4%
Fort Pierce-Port St Lucie	FL	4%
Fort Walton Beach	FL	4%
Gainesville	FL	4%
Jacksonville	FL	4%
Lakeland-Winter Haven	FL	4%
Melbourne-Titusville-Palm Bay	FL	4%

Area Name	State	Coeff
Naples	FL	4%
Ocala	FL	4%
Orlando	FL	4%
Panama City	FL	4%
Pensacola	FL	4%
Punta Gorda	FL	4%
Sarasota-Bradenton	FL	4%
Tallahassee	FL	4%
Tampa-St Petersburg-Clearwater	FL	4%
West Palm Beach-Boca Raton	FL	4%
Rural (non-metropolitan)	FL	-16%
Albany	GA	-12%
Athens	GA	-12%
Augusta-Aiken	GA	-12%
Columbus	GA	-12%
Macon	GA	-12%
Savannah	GA	-12%
Atlanta	GA	10%
Rural (non-metropolitan)	GA	-16%
Honolulu	HI	21%
Rural (non-metropolitan)	HI	11%
Cedar Rapids	IA	-18%
Davenport-Moline-Rock Island	IA	-18%
Des Moines	IA	-18%
Dubuque	IA	-18%
Iowa City	IA	-18%
Sioux City	IA	-18%
Waterloo-Cedar Falls	IA	-18%
Rural (non-metropolitan)	IA	-30%
Boise City	ID	-16%
Pocatello	ID	-16%
Rural (non-metropolitan)	ID	-19%
Kankakee	IL	4%
Chicago	IL	20%
Bloomington-Normal	IL	-11%
Champaign-Urbana	IL	-11%
Decatur	IL	-11%
Peoria-Pekin	IL	-11%
Rockford	IL	-11%
Springfield	IL	-11%
Rural (non-metropolitan)	IL	-20%
Gary	IN	4%
Bloomington	IN	-11%

Area Name	State	Coeff
Elkhart-Goshen	IN	-11%
Evansville-Henderson	IN	-11%
Fort Wayne	IN	-11%
Kokomo	IN	-11%
Lafayette	IN	-11%
Muncie	IN	-11%
South Bend	IN	-11%
Terre Haute	IN	-11%
Indianapolis	IN	-5%
Rural (non-metropolitan)	IN	-20%
Lawrence	KS	-18%
Topeka	KS	-18%
Wichita	KS	-18%
Rural (non-metropolitan)	KS	-30%
Owensboro	KY	-18%
Lexington	KY	-13%
Louisville	KY	-12%
Rural (non-metropolitan)	KY	-30%
Alexandria	LA	-12%
Baton Rouge	LA	-12%
Houma	LA	-12%
Lafayette	LA	-12%
Lake Charles	LA	-12%
Monroe	LA	-12%
New Orleans	LA	-12%
Shreveport-Bossier City	LA	-12%
Rural (non-metropolitan)	LA	-25%
Brockton	MA	19%
Fitchburg-Leominster	MA	19%
Lawrence	MA	19%
Lowell	MA	19%
New Bedford	MA	19%
Worcester	MA	19%
Boston	MA	33%
Barnstable-Yarmouth	MA	19%
Pittsfield	MA	19%
Springfield	MA	19%
Rural (non-metropolitan)	MA	12%
Hagerstown	MD	6%
Baltimore	MD	5%
Cumberland	MD	-15%
Rural (non-metropolitan)	MD	-19%
Bangor	ME	12%
Lewiston-Auburn	ME	12%
Portland	ME	12%
Rural (non-metropolitan)	ME	12%

Area Name	State	Coeff
Ann Arbor	MI	-2%
Flint	MI	-2%
Detroit	MI	7%
Benton Harbor	MI	-11%
Grand Rapids-Muskegon-Holland	MI	-11%
Jackson	MI	-11%
Kalamazoo-Battle Creek	MI	-11%
Lansing-East Lansing	MI	-11%
Saginaw-Bay City-Midland	MI	-11%
Rural (non-metropolitan)	MI	-20%
Duluth-Superior	MN	-18%
Rochester	MN	-18%
St Cloud	MN	-18%
Minneapolis-St Paul	MN	6%
Rural (non-metropolitan)	MN	-30%
Columbia	MO	-18%
Joplin	MO	-18%
St Joseph	MO	-18%
Springfield	MO	-18%
Kansas City	MO	-5%
St Louis	MO	-9%
Rural (non-metropolitan)	MO	-30%
Biloxi-Gulfport-Pascagoula	MS	-18%
Hattiesburg	MS	-18%
Jackson	MS	-18%
Rural (non-metropolitan)	MS	-30%
Billings	MT	-16%
Great Falls	MT	-16%
Missoula	MT	-16%
Rural (non-metropolitan)	MT	-19%
Asheville	NC	-8%
Fayetteville	NC	-8%
Goldsboro	NC	-8%
Greenville	NC	-8%
Hickory-Morganton-Lenoir	NC	-8%
Jacksonville	NC	-8%
Rocky Mount	NC	-8%
Wilmington	NC	-8%
Charlotte-Gastonia-Rock Hill	NC	-4%
Greensboro--Winston-Salem--High Point	NC	-6%
Raleigh-Durham-Chapel Hill	NC	5%
Rural (non-metropolitan)	NC	-19%
Bismarck	ND	-18%

Area Name	State	Coeff
Fargo-Moorhead	ND	-18%
Grand Forks	ND	-18%
Rural (non-metropolitan)	ND	-30%
Lincoln	NE	-18%
Omaha	NE	-18%
Rural (non-metropolitan)	NE	-30%
Manchester	NH	12%
Nashua	NH	12%
Portsmouth-Rochester	NH	22%
Rural (non-metropolitan)	NH	12%
Atlantic-Cape May	NJ	7%
Vineland-Millville-Bridgeton	NJ	7%
Bergen-Passaic	NJ	31%
Jersey City	NJ	31%
Middlesex-Somerset-Hunterdon	NJ	31%
Monmouth-Ocean	NJ	31%
Newark	NJ	31%
Trenton	NJ	31%
Rural (non-metropolitan)	NJ	-11%
Albuquerque	NM	-16%
Las Cruces	NM	-16%
Santa Fe	NM	-16%
Rural (non-metropolitan)	NM	-19%
Reno	NV	-16%
Las Vegas	NV	8%
Rural (non-metropolitan)	NV	-19%
Dutchess County	NY	31%
Nassau-Suffolk	NY	31%
Newburgh	NY	31%
New York	NY	42%
Albany-Schenectady-Troy	NY	-7%
Binghamton	NY	-7%
Buffalo-Niagara Falls	NY	-7%
Elmira	NY	-7%
Glens Falls	NY	-7%
Jamestown	NY	-7%
Rochester	NY	-7%
Syracuse	NY	-7%
Utica-Rome	NY	-7%
Rural (non-metropolitan)	NY	-11%
Cleveland-Lorain-Elyria	OH	0%
Hamilton-Middletown	OH	-10%
Akron	OH	-6%
Cincinnati	OH	-9%

Area Name	State	Coeff
Canton-Massillon	OH	-11%
Lima	OH	-11%
Mansfield	OH	-11%
Steubenville-Weirton	OH	-11%
Youngstown-Warren	OH	-11%
Columbus	OH	-10%
Dayton-Springfield	OH	-9%
Toledo	OH	-14%
Rural (non-metropolitan)	OH	-20%
Enid	OK	-12%
Lawton	OK	-12%
Oklahoma City	OK	-12%
Tulsa	OK	-12%
Rural (non-metropolitan)	OK	-25%
Salem	OR	-10%
Portland-Vancouver	OR	-6%
Corvallis	OR	-15%
Eugene-Springfield	OR	-15%
Medford-Ashland	OR	-15%
Rural (non-metropolitan)	OR	-15%
Philadelphia	PA	21%
Allentown-Bethlehem-Easton	PA	-7%
Altoona	PA	-7%
Erie	PA	-7%
Harrisburg-Lebanon-Carlisle	PA	-7%
Johnstown	PA	-7%
Lancaster	PA	-7%
Reading	PA	-7%
Scranton--Wilkes-Barre--Hazleton	PA	-7%
Sharon	PA	-7%
State College	PA	-7%
Williamsport	PA	-7%
York	PA	-7%
Pittsburgh	PA	-5%
Rural (non-metropolitan)	PA	-11%
Providence-Fall River-Warwick	RI	19%
Rural (non-metropolitan)	RI	12%
Charleston-North Charleston	SC	-8%
Columbia	SC	-8%
Florence	SC	-8%
Greenville-Spartanburg-Anderson	SC	-8%

Area Name	State	Coeff
Myrtle Beach	SC	-8%
Sumter	SC	-8%
Rural (non-metropolitan)	SC	-16%
Rapid City	SD	-18%
Sioux Falls	SD	-18%
Rural (non-metropolitan)	SD	-30%
Chattanooga	TN	-18%
Clarksville-Hopkinsville	TN	-18%
Jackson	TN	-18%
Johnson City-Kingsport-Bristol	TN	-18%
Memphis	TN	-18%
Knoxville	TN	-15%
Nashville	TN	2%
Rural (non-metropolitan)	TN	-30%
Brazoria	TX	-7%
Fort Worth-Arlington	TX	-3%
Galveston-Texas City	TX	-7%
Dallas	TX	6%
Houston	TX	-2%
Abilene	TX	-12%
Amarillo	TX	-12%
Austin-San Marcos	TX	-12%
Beaumont-Port Arthur	TX	-12%
Brownsville-Harlingen-San Benito	TX	-12%
Bryan-College Station	TX	-12%
Corpus Christi	TX	-12%
El Paso	TX	-12%
Killeen-Temple	TX	-12%
Laredo	TX	-12%
Longview-Marshall	TX	-12%
Lubbock	TX	-12%
McAllen-Edinburg-Mission	TX	-12%
Odessa-Midland	TX	-12%
San Angelo	TX	-12%
San Antonio	TX	-12%
Sherman-Denison	TX	-12%
Texarkana	TX	-12%
Tyler	TX	-12%
Victoria	TX	-12%
Waco	TX	-12%
Wichita Falls	TX	-12%
Rural (non-metropolitan)	TX	-25%
Provo-Orem	UT	-16%
Salt Lake City-Ogden	UT	-5%

Area Name	State	Coeff
Rural (non-metropolitan)	UT	-19%
Charlottesville	VA	-15%
Danville	VA	-15%
Lynchburg	VA	-15%
Roanoke	VA	-15%
Norfolk-Virginia Beach- Newport News	VA	-10%
Richmond-Petersburg	VA	-1%
Rural (non-metropolitan)	VA	-19%
Burlington	VT	12%
Rural (non-metropolitan)	VT	12%
Bremerton	WA	-7%
Olympia	WA	-7%
Tacoma	WA	-7%
Seattle-Bellevue-Everett	WA	1%
Bellingham	WA	-15%
Richland-Kennewick-Pasco	WA	-15%
Spokane	WA	-15%
Yakima	WA	-15%
Rural (non-metropolitan)	WA	-15%
Kenosha	WI	4%
Racine	WI	-7%
Milwaukee-Waukesha	WI	-4%
Appleton-Oshkosh-Neenah	WI	-11%
Eau Claire	WI	-11%
Green Bay	WI	-11%
Janesville-Beloit	WI	-11%
La Crosse	WI	-11%
Madison	WI	±11%
Sheboygan	WI	-11%
Wausau	WI	-11%
Rural (non-metropolitan)	WI	-20%
Charleston	WV	-15%
Huntington-Ashland	WV	-15%
Parkersburg-Marietta	WV	-15%
Wheeling	WV	-15%
Rural (non-metropolitan)	WV	-16%
Casper	WY	-16%
Cheyenne	WY	-16%
Rural (non-metropolitan)	WY	-19%



## APPENDIX C

### Step-By-Step Calculation of a Project Expense Level (PEL)

#### Background

Anytown PHA is located in Anytown, Massachusetts, just outside of Boston. The population of Anytown is 47,235. There are 5,577 single-family homes with a median value of \$168,000 and a median family income of \$46,888. The Anytown PHA has 194 public housing units, in three projects – Petersburg, Skimmer Lane, and Central Park.

#### Calculation of PEL For Petersburg Project

Based on the above background information, and using the variable coefficients in Appendices A and B, the PEL for the Petersburg project is calculated as follows:

**Step 1: Determine the coefficients for the ten variables.** For Petersburg, the proper coefficients for each of the ten variables have been determined using the tables in Appendices A and B.

**Step 2: Sum the coefficients for eight variables.** The coefficient values identified in step 1 for the first eight variables have been added and the result is 51.25 percent.

PHA Name: Anytown PHA		Project Name: Petersburg	
		Project Code: MA200001	
	Variable	Project Characteristics	Coefficient
Step 1	Size of project	100	0.00%
	Age of property (DOFA)	48	9.73%
	Building type	Walkup/garden	0.00%
	Occupancy type	Family	0.00%
	Location	Metro non-central city	0.00%
	Neighborhood poverty rate	20% to > 30%	2.13%
	Percentage of households assisted	100% assisted	6.39%
	Geographic	Boston MA-NH PMSA	33.00%
Step 2	Sum of the above eight coefficients		51.25%

**Step 3: Determine the percent of two, three, and four or more bedroom units in the project, then multiply by the applicable coefficient.** Of the 100 units in the Petersburg project, there are 45 two bedroom units (45 percent of the total), 25 three bedroom units (25 percent of the total), and ten four or more bedroom units (10 percent of the total). The coefficient for two bedroom units is 17.61 percent; the coefficient for three bedroom units is 37.65 percent; and the coefficient for four or more bedroom units is 48.73 percent. The product of 45 percent times

17.61 percent is 7.92 percent; the product of 25 percent times 37.65 percent is 9.41 percent and the product of ten times 48.73 percent is 4.87 percent. The sum of these three values is 22.21 percent.

**Step 4: Add the result of steps 2 and 3 to the model constant.** The results of steps 2 and 3, 51.25 percent and 22.21 percent, added to the model constant of 520.18 percent, equal 593.64 percent.

	Variable	Project Characteristics	Coefficient
<b>Step 3</b>	Multiply percent of 2 bedroom units by 17.61%	45%	7.92%
	Multiply percent of 3 bedroom units by 37.65%	25%	9.41%
	Multiply percent of 4 or more bedroom units by 48.73%	10%	4.87%
	Unit size (bedroom mix) sum		22.21%
<b>Step 4</b>	Sum of the first eight coefficients		51.25%
	Unit size		22.21%
	Model constant		520.18%
	Sum		593.64%

**Step 5: Use the result of step 4, which is expressed as a percent, to generate an exponent, expressed as a dollar amount.** In Microsoft (MS) Excel, the formula for the exponent is: *EXP* (sum of coefficients). Thus, *EXP* (593.64 percent) is \$378.57.

**Step 6: Multiply the result of step 5 by one plus the coefficient value of the Ownership Type variable.** This step is the non-profit adjustment. The Ownership Type for PHAs is "non-profit." Thus, one plus the coefficient value for non-profit is 1.10. The result of \$378.57 times 1.10 is \$416.43.

**Step 7: If step 6 is greater than \$325, reduce result by four percent, but to no less than \$325. If the project is part of the New York City Housing Authority (NYCHA), do not apply step 7.** The result of step 6, \$415.47, is greater than \$325 and Petersburg is not a part of the NYCHA, so it is reduced by four percent to \$399.77.

	Variable	Project Characteristics	Coefficient
<b>Step 5</b>	Take exponent of step 4 [EXP (step 4)]		\$378.57
<b>Step 6</b>	Multiply Ownership Type by the result of step 6	Non-profit (110%)	\$416.43
<b>Step 7</b>	If greater than \$325, reduce by four percent		\$399.77

**Step 8: Application of the four floor and ceiling cost adjustments, if necessary.**

- If the result of step 7 is less than \$200 and the project *Occupancy Type* is identified as senior, raise the PEL level to \$200.
- If the result of step 7 is less than \$215 and the project *Occupancy Type* is identified as family, raise the PEL level to \$215.
- If the result of step 7 is greater than \$420 and the project is not owned by the NYCHA nor is it NYCHA mixed finance rental housing, decrease the PEL to \$420.
- If the result of step 7 is greater than \$480 and the project is owned by the NYCHA or is NYCHA mixed finance rental housing, decrease the PEL to \$480.

For the Petersburg project, there are no applicable floor and ceiling cost adjustments, so the dollar amount of \$399.77 does not change.

	Variable	Project Characteristics	Coefficient
Step 8	Apply floor and ceiling cost-adjustments	None	\$0.00

**Step 9: Deduct the PUM audit cost from FFY 2003.** The PUM audit cost for Anytown PHA from FFY 2003 is \$1.00. Accordingly, \$399.77 minus \$1.00 is \$398.77.

**Step 10: Multiply the result by the annual inflation factor.** Because the PEL from step 9 is in year 2000 dollars, the result is inflated to year 2004 dollars by the HUD local inflation factor. Then the appropriate inflation factor is applied to reach the current year PEL. The 2001 inflation factor is 1.019, the 2002 inflation factor is 1.023, the 2003 inflation factor is 1.015, and the 2004 inflation factor is 1.031. 1.019 times 1.023 times 1.015 times 1.031 equals 1.090874. Then, \$398.77 times 1.090874 equals 435.0078, which, rounded to the nearest penny, equals \$435.01, the initial PEL in 2004 dollars.

	Variable	Project Characteristics	Coefficient
Step 9	Minus PUM audit cost for FFY 2003	(\$1.00)	\$398.77
Step 10	Inflation factor (2001, 2002, 2003 and 2004)	Cumulative inflation factor	1.090874
	PEL for subsidy calculation		\$435.01

The PELs for two remaining Anytown PHA projects would be calculated in accordance with the same above-described steps.

## PELs for the Three Anytown HA Projects

PHA Name: Anytown PHA		Project Name: Petersburg MA200001		Project Name: Skimmer Lane MA200002		Project Name: Central Park MA200003	
Step	Variable	Project Characteristics	Coeff	Project Characteristics	Coeff	Project Characteristics	Coeff
Step 1	Size of project	100 units	0.00%	49 units	0.00%	45 units	0.00%
	Age of property (DOFA)	48 years old	9.73%	38 years old	9.73%	19 years old	9.73%
	Building type	Walkup/garden	0.00%	Walkup/garden	0.00%	Walkup/garden	3.64%
	Occupancy type	Family	0.00%	Family	0.00%	Ssnior	-5.83%
	Location	Metro non-central city	0.00%	Metro non-central city	0.00%	Metro non-central city	0.00%
	Neighborhood poverty rate	20% to >30%	2.13%	20% to >30%	2.13%	20% to >30%	2.13%
	Percent of households assisted	100% assisted	6.39%	100% assisted	6.39%	100% assisted	6.39%
	Geographic	Boston MA-NH PMSA	33.00%	Boston MA-NH PMSA	33.00%	Boston MA-NH PMSA	33.00%
Step 2	Sum of the above 8 coefficients		51.25%		51.25%		39.33%
Step 3	Multiply percent of 2 bedroom units by 17.61%	45%	7.92%	22%	3.87%		0.00%
	Multiply percent of 3 bedroom units by 37.65%	25%	9.41%	20%	7.53%		0.00%
	Multiply percent of 4 or more bedroom units by 48.73%	10%	4.87%	0.00%	0.00%		0.00%
	Unit size (bedroom mix)		22.21%		11.40%		0.00%
Step 4	Sum of the 8 coefficients		51.25%		51.25%		39.33%
	Unit size		22.21%		11.40%		0.00%
	Model constant		520.18 percent		520.18 percent		520.18 percent
	Sum		593.64 percent		582.83 percent		559.51 percent
Step 5	Take exponent of step 4 [EXP (step 4)]		\$378.57		\$339.79		\$269.10
Step 6	Multiply Ownership Type by the result of step 5	Non-profit (110%)	\$416.43	Non-profit (110%)	\$373.77	Non-profit (110%)	\$296.02
Step 7	If greater than \$325, reduce by 4%		\$399.77		\$358.82		\$296.02
Step 8	Apply floor and ceiling Cost Adjustments	None	-	None	-	None	-
Step 9	Minus PUM audit cost for FFY 2003	(\$1.00)	\$398.77	(\$1.00)	\$357.82	(\$1.00)	\$295.02

	PHA Name: Anytown PHA	Project Name: Petersburg MA200001		Project Name: Skimmer Lane MA200002		Project Name: Central Park MA200003	
	Variable	Project Characteristics	Coeff	Project Characteristics	Coeff	Project Characteristics	Coeff
Step 10	Cumulative inflation factor (2001, 2002, 2003 and 2004)		1.090874		1.090874		1.090874
	PEL for subsidy calculation		\$435.01		\$390.34		\$321.82

#### Calculation of PHA PEL for FFY 2006 Appropriations

For 2006, PHAs will be funded under the new formula, but at the agency level. Two additional steps, described below, are required to calculate this PHA's PEL.

**Step 11. Create a weighted property PEL.** Multiply each project PEL by the number of units in that project to create a weighted PEL for each project.

Step 11	Project PEL and PHA Weighted PEL				
	Project Name	Units	PEL	Weighted Property PEL	Weighted Average PEL= Total Weighted Property PELs/Total Units
	Petersburg	100	\$435.01	\$43,501.00	
	Skimmer Lane	49	\$390.34	\$19,126.66	
	Central Park	45	\$321.82	\$14,481.90	
Step 12	Totals	194		\$77,109.56	\$397.47
Step 13	Cumulative inflation factor, 2005 and 2006				1.05
	<b>2006 PHA PEL</b>				<b>\$417.34</b>

**Step 12: Create a weighted average 2004 PHA PEL.** Take the weighted project PELs calculated under step 11 and divide the result by the total number of units in the PHA. This is the PHA's weighted average PEL. In the example above, \$77,109.56 divided by 3,328 (194 units x 12 months) = \$397.47. This is the 2004 PEL.

**Step 13: Calculate the 2006 PHA PEL.** Take the 2004 PHA PEL and multiply it by the HUD local inflation factors for 2005 and 2006. In this example, they are 1.028 and 1.021, for a cumulative factor of 1.050. \$397.47 times 1.050 = \$417.34, which is the PHA PEL for 2006.

#### Calculation of Property PELs for Appropriations for FFY 2007 and After

Beginning with the FFY 2007 operating subsidy appropriations, the Anytown PHA will receive the subsidy on a property-by-property basis in the amount of each property's PEL.



**PELs for "New" Asset Management Projects.** When a PHA combines existing projects, or combines buildings from more than one existing project to create a "new project" for purposes of asset management (in accordance with subpart H), the following rules apply for calculation of the PEL for the new project.

**Age of Property Variable.** The age of the property variable will be a weighted age of the buildings from the different projects. For example, if the Anytown PHA combines units from the existing Petersburg, Skimmer Lane and Central Park developments into a new project, the weighted age of the buildings in that project will be calculated as follows:

Methodology to Calculate the Weighted Age of Buildings From Different Projects						
A	B	C	D	E	F	G
Project Name	Number of Units in Buildings in "New Project"	DOFA	Age Period End Date	Age in Days	Unit Days	Weighted Av. Age = Total Unit Days / Total Units x 360
Petersburg	50	8/01/1964	12/31/2000	13,110	655,500	
Skimmer Lane	10	3/20/1980	12/31/2000	7,481	74,810	
Central Park	15	8/01/1940	12/31/2000	21,750	326,250	
Total	75				1,056,560	39

Column E: Calculate the building age in days from DOFA until December 31, 2000, where each month has 30 days.

Column F: Calculate "unit days" as units (column B) x age (column E) for each building. Sum to total.

Column H: Divide the total unit days (column F) by the total units (column B). Divide the result by 360 and round to the nearest whole number.

In this example, the weighted age of the new project is 39 years. The coefficient for a property that is 39 years old is 9.73 percent. Thus, for purposes of calculating the PEL for the new project, the age of property coefficient is 9.73 percent.

[FR Doc. 06-59 Filed 1-4-06; 8:45 am]  
BILLING CODE 4210-33-C

## DEPARTMENT OF THE INTERIOR

### Office of the Secretary

#### Blackstone River Valley National Heritage Corridor Commission: Notice of Meeting

Notice is hereby given in accordance with Section 552b of Title 5, United States Code, that a meeting of the John

H. Chafee Blackstone River Valley National Heritage Corridor Commission will be held on Thursday, February 23, 2006.

The Commission was established pursuant to Public Law 99-647. The purpose of the Commission is to assist federal, state and local authorities in the development and implementation of an integrated resource management plan for those lands and waters within the Corridor.

The meeting will convene on February 23, 2006 at 7 p.m. at Central Falls Town Hall, 580 Broad Street,

Central Falls, RI 02863 for the following reasons:

1. Approval of Minutes
2. Chairman's Report
3. Executive Director's Report
4. Financial Budget
5. Public Input

It is anticipated that about twenty-five people will be able to attend the session in addition to the Commission members.

Interested persons may make oral or written presentations to the Commission or file written statements. Such requests should be made prior to the meeting to:

Larry Gall, Interim Executive Director, John H. Chafee Blackstone River Valley National Heritage Corridor Commission, One Depot Square, Woonsocket, RI 02895, Tel.: (401) 762-0250.

Further information concerning this meeting may be obtained from Larry Gall, Interim Executive Director of the Commission at the aforementioned address.

**Larry Gall,**

*Interim Executive Director, BRVNHCC.*

[FR Doc. E5-8297 Filed 1-4-06; 8:45 am]

BILLING CODE 4310-RK-P

## DEPARTMENT OF JUSTICE

### Notice of Proposed Consent Decree in United States v. DaimlerChrysler Corporation

Pursuant to 28 CFR 50.7, notice is hereby given that on December 21, 2005, a proposed Consent Decree was lodged with the United States District Court for the District of Columbia in the case of *United States v. DaimlerChrysler Corporation*, Civil Action No. 05-2440.

The proposed Consent Decree settles the United States' claims against DaimlerChrysler Corporation ("Chrysler") for injunctive relief and civil penalties under the Clean Air Act, as amended, 42 U.S.C. 7401 *et seq.* (the "Act"), arising from the company's failure to file emission-defect information reports with the U.S. Environmental Protection Agency ("EPA") with respect to certain model year 1996-2001 Jeep, Dodge Ram, and Dodge Dakota vehicles equipped with potentially defective catalytic converters (the "Catalyst Defect"). The proposed Decree provides for the payment of \$1 million in civil penalties, the performance of a supplemental environmental project to reduce emissions from in-use diesel engines at a cost of not less than \$3 million, and the implementation of enhanced emission-related defect reporting procedures by Chrysler. The Consent Decree also includes remedial provisions, including extending the warranty covering repair of the Catalyst Defect and a recall to correct a separate defect in the computer-based on-board diagnostic system in certain Chrysler vehicles, resolving potential EPA administrative claims with respect to these defects.

The Department of Justice will receive for a period of thirty (30) days from the date of this publication comments relating to the proposed Consent Decree. Comments should be addressed to the Assistant Attorney General,

Environment and Natural Resources Division, P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044-7611, and should refer to *United States v. DaimlerChrysler Corporation*, D.J. Ref. 90-5-2-1-08231.

During the public comment period, the Consent Decree may be examined on the following Department of Justice Web site, <http://www.usdoj.gov/enrd/open/html>.

A copy of the Agreement may also be obtained by mail from the Consent Decree Library, P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044-7611 or by faxing or e-mailing a request to Tonia Fleetwood ([tonia.fleetwood@usdoj.gov](mailto:tonia.fleetwood@usdoj.gov)), fax no. (202) 514-0097, phone confirmation number (202) 514-1547. In requesting a copy of the Decree from the Consent Decree Library, please enclose a check in the amount of \$20.50 (25 cents per page reproduction cost of 82 pages) payable to the U.S. Treasury.

**Karen Dworkin,**

*Assistant Chief, Environmental Enforcement Section.*

[FR Doc. 06-79 Filed 1-4-06; 8:45 am]

BILLING CODE 4410-15-M

## DEPARTMENT OF JUSTICE

### Notice of Lodging of Consent Decree Under the Clean Air Act

In accordance with 28 CFR 50.7, notice is hereby given that on December 21, 2005, a proposed Consent Decree in *United States v. MGP Ingredients of Illinois, Inc.* ("MGP"), Civil Action No. 05-1395, was lodged with the United States District Court for the Central District of Illinois.

In Complaints filed simultaneously with the lodging of the proposed Consent Decree, the United States and the State of Illinois ("Plaintiffs") asserted claims on behalf of the U.S. Environmental Protection Agency ("U.S. EPA") and the Illinois Environmental Protection Agency ("IEPA") against the owners and operators of an ethanol dry mill in Pekin, Illinois, pursuant to Section 113(b) of the Clean Air Act ("Act"), 42 U.S.C. 7413(b). Plaintiffs sought injunctive relief and civil penalties for violations of the Prevention of Significant Deterioration ("PSD") Provisions of the Act and regulations promulgated thereunder; New Source Performance Standards ("NSPS"), 40 CFR Part 60, subpart VV; and the Illinois state implementation plan.

In the proposed Consent Decree, MGP agrees, among other things, to install new equipment that includes a thermal

oxidizer to control volatile organic compound ("VOC"), particulate, and carbon monoxide ("CO") emissions from its dryer; achieve at least 95 percent removal of VOCs; meet stringent limits on CO, particulate matter, and NO<sub>x</sub> emissions; implement a program to reduce emissions during loading and transport operations and to manage dust on roads at the facility; comply with various monitoring and record-keeping requirements; apply for a revised operating permit from IEPA; and pay a civil penalty of \$171,800, half to the United States and half to the State.

The Department of Justice will receive comments relating to the proposed Consent Decree for a period of thirty (30) days from the date of publication. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, P.O. Box 7611, U.S. Department of Justice, Washington, D.C. 20044-7611, and should refer to: *United States v. MGP Ingredients of Illinois, Inc.*, D.J. Ref. 90-5-2-1-08180.

The proposed Consent Decree may be examined at the Office of the United States Attorney for the Central District of Illinois, Peoria Division, One Technology Plaza, 211 Fulton Street, Suite 400, Peoria, Illinois 61602, and at U.S. EPA Region 5, 77 West Jackson Blvd., Chicago, IL 60604. During the public comment period the proposed Consent Decree may also be examined on the following Department of Justice Web site, <http://www.usdoj.gov/enrd/open.html>. A copy of the proposed Consent Decree, may also be obtained, by mail from the Consent Decree Library, P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044-7611 or by faxing or e-mailing a request to Tonia Fleetwood ([tonia.fleetwood@usdoj.gov](mailto:tonia.fleetwood@usdoj.gov)), fax no. (202) 514-0097, phone confirmation number (202) 514-1547. In requesting a copy from the Consent Decree Library, please enclose a check in the amount of \$11.00 (25 cents per page reproduction cost) payable to the U.S. Treasury.

**William D. Brighton,**

*Assistant Chief, Environmental Enforcement Section, Environment and Natural Resources Division.*

[FR Doc. 06-82 Filed 1-4-06; 8:45 am]

BILLING CODE 4410-15-M

**DEPARTMENT OF LABOR****Employment and Training Administration**

[TA-W-58,217]

**Carolina Mills, Inc. Plant No. 9, Valdese, NC; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at Carolina Mills, Inc., Plant No. 9, Valdese, North Carolina. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

TA-W-58,217; Carolina Mills, Inc., Plant No. 9, Valdese, North Carolina (December 28, 2005).

Signed at Washington, DC this 28th day of December 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8292 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

**DEPARTMENT OF LABOR****Employment and Training Administration****Notice of Determinations Regarding Eligibility To Apply for Worker Adjustment Assistance**

In accordance with Section 223 of the Trade Act of 1974, as amended, (19 U.S.C. 2273), the Department of Labor herein presents summaries of determinations regarding eligibility to apply for trade adjustment assistance for workers (TA-W) number and alternative trade adjustment assistance (ATAA) by (TA-W) number issued during the periods of December 2005.

In order for an affirmative determination to be made and a certification of eligibility to apply for directly-impacted (primary) worker adjustment assistance to be issued, each of the group eligibility requirements of Section 222(a) of the Act must be met.

I. Section (a)(2)(A) all of the following must be satisfied:

A. A significant number or proportion of the workers in such workers' firm, or an appropriate subdivision of the firm,

have become totally or partially separated, or are threatened to become totally or partially separated;

B. The sales or production, or both, of such firm or subdivision have decreased absolutely; and

C. Increased imports of articles like or directly competitive with articles produced by such firm or subdivision have contributed importantly to such workers' separation or threat of separation and to the decline in sales or production of such firm or subdivision; or

II. Section (a)(2)(B) both of the following must be satisfied:

A. A significant number or proportion of the workers in such workers' firm, or an appropriate subdivision of the firm, have become totally or partially separated, or are threatened to become totally or partially separated;

B. There has been a shift in production by such workers' firm or subdivision to a foreign country of articles like or directly competitive with articles which are produced by such firm or subdivision; and

C. One of the following must be satisfied:

1. The country to which the workers' firm has shifted production of the articles is a party to a free trade agreement with the United States;

2. The country to which the workers' firm has shifted production of the articles to a beneficiary country under the Andean Trade Preference Act, African Growth and Opportunity Act, or the Caribbean Basin Economic Recovery Act; or

3. There has been or is likely to be an increase in imports of articles that are like or directly competitive with articles which are or were produced by such firm or subdivision.

Also, in order for an affirmative determination to be made and a certification of eligibility to apply for worker adjustment assistance as an adversely affected secondary group to be issued, each of the group eligibility requirements of Section 222(b) of the Act must be met.

(1) Significant number or proportion of the workers in the workers' firm or an appropriate subdivision of the firm have become totally or partially separated, or are threatened to become totally or partially separated;

(2) The workers' firm (or subdivision) is a supplier or downstream producer to a firm (or subdivision) that employed a group of workers who received a certification of eligibility to apply for trade adjustment assistance benefits and such supply or production is related to the article that was the basis for such certification; and

(3) Either—

(A) The workers' firm is a supplier and the component parts it supplied for the firm (or subdivision) described in paragraph (2) accounted for at least 20 percent of the production or sales of the workers' firm; or

(B) A loss or business by the workers' firm with the firm (or subdivision) described in paragraph (2) contributed importantly to the workers' separation or threat of separation.

**Affirmative Determinations for Worker Adjustment Assistance**

The following certifications have been issued; the date following the company name and location of each determination references the impact date for all workers of such determination.

The following certifications have been issued. The requirements of (a)(2)(A) (increased imports) of Section 222 have been met.

- TA-W-58,072; Engineered Specialty Plastics, Hot Springs, AR, 10/25/2004.
- TA-W-58,188; Staley Fabricators, Inc., D/B/A Wright's Furniture, Staley, NC, 8/9/2005.
- TA-W-58,251; Foamex LP, Consumer Products Group, Leased Workers—TEC Staffing, Fort Smith, AR, 11/17/2004.
- TA-W-58,252; Flair Design Limited, Also known as FDL, Inc., Alexandria, IN, 11/17/2004.
- TA-W-58,265; VF Jeanswear Service Support Center, Greensboro, NC, 11/21/2004.
- TA-W-58,285; Sax Hosiery, Inc., Gibsonville, NC, 1/28/2005.
- TA-W-58,293; DeVaughn Woodworks, Inc., Marietta, MS, 11/29/2004.
- TA-W-58,332; Vera and Bob Holte Associate, Inc., d/b/a Holte, Los Angeles, CA, 11/23/2004.
- TA-W-58,352; Cavert Wire Co., Lemont Furnace, PA, 10/4/2004.
- TA-W-58,368; Coherent, Inc., Electronic Products—Auburn Div., Auburn, CA, 10/21/2004.
- TA-W-58,376; Lati USA, Inc., Summerville, SC, 11/1/2004.
- TA-W-58,376A; Lati USA, Inc., Summerville, SC, Louisville, KY, 10/31/2004.
- TA-W-58,389; Glass Group, Inc. (The), New Mold Shop, Millville, NJ, 10/9/2004.
- TA-W-58,400; MoltechPower Systems, Inc., Subsidiary of Shanghai Tire and Rubber Company, Alachua, FL, 10/31/2004.
- TA-W-58,422; Western Forge, Murphy, NC, 12/6/2004.
- TA-W-58,434; Burlen Corporation, Plant #1, Tifton, GA, 12/10/2005.

TA-W-58,467; *Scottsburg Plastics, Inc.*,  
Scottsburg, IN, 10/29/2004.

The following certifications have been issued. The requirements of (a)(2)(B) (shift in production) of Section 222 have been met.

TA-W-58,074; *Jasco Fabrics, Inc.*, New York, NY, 11/1/2004.

TA-W-58,257; *Motorola, Inc.*, Embedded Communication Computing, Supply Chain Division, Tempe, AZ, 9/14/2004.

TA-W-58,266; *U.S. Pipe and Foundry Co.*, Chattanooga Valve and Fittings Plant, Chattanooga, TN, 10/31/2004.

TA-W-58,281; *H.B. Williamson Co.*, d/b/a *Williamson Co. (The)*, Fairfield, IL, 11/2/2004.

TA-W-58,283; *Hartz and Company, Inc.*, *Hartz-Broadway, Inc. Division*, Broadway, VA, 11/7/2004.

TA-W-58,289; *Eaton, Electrical Components Div.*, Beaver, PA, 11/8/2004.

TA-W-58,299; *Tecumseh Products Co.*, Power Div., Corinth, MS, 11/9/2005.

TA-W-58,300; *Kentucky Derby Hosiery Company*, Plant 9, Ablest Staffing, Wytheville, VA, 11/10/2004.

TA-W-58,313; *Superior Essex, Active Industries*, Brownsville, TX, 11/10/2004.

TA-W-58,344; *Bio-Rad Laboratories, Inc.*, New England Operations, Waltham, MA, 11/29/2004.

TA-W-58,344A; *Bio-Rad Laboratories, Inc.*, New England Operations, Watertown, MA, 10/24/2004.

TA-W-58,420; *Stoneridge Alphabet, Orwell Division, On-Site Leased Workers of Kelly Temporary Services*, Orwell, OH, 11/8/2004.

TA-W-58,443; *Amorim Industrial Solutions, Inc.*, *Corticeira Amorim S.G.P.S.*, Trevor, WI, 11/23/2004.

TA-W-58,452; *Ishikawa Gasket America, Inc.*, Bowling Green, OH, 12/2/2004.

TA-W-58,460; *Glenoit Fabrics, A Subsidiary of Haikin, USA*, Tarboro, NC, 12/5/2004.

TA-W-58,470; *Great Lakes Industry, Inc.*, Jackson, MI, 11/28/2004.

The following certification has been issued. The requirement of supplier to a trade certified firm has been met.

TA-W-58,247; *Guilford Mills, Inc.*, Automotive Division, Kenansville, NC, 10/29/2004.

TA-W-58,488; *River City Metal Products*, Keokuk, IA, 12/5/2004.

The following certification has been issued. The requirement of downstream producer to a trade certified firm has been met.

None.

#### Negative Determinations for Worker Adjustment Assistance

In the following cases, the investigation revealed that the criteria for eligibility have not been met for the reasons specified.

The investigation revealed that criterion (a)(2)(A)(I.A) and (a)(2)(B)(II.A) (no employment decline) has not been met.

TA-W-58,177; *Rexnord Disc Coupling Operation, Coupling Division*, Warren, PA.

The investigation revealed that criteria (a)(2)(A)(I.B.) (Sales or production, or both, did not decline) and (a)(2)(B)(II.B) (No shift in production to a foreign country) have not been met.

TA-W-58,201; *Hewlett-Packard Co.*, *IPG—Global Hardware Manufacturing Operations*, Boise, ID.

TA-W-58,208; *Allegheny Ludlum Corp.*, Plant Protection Department, Brackenridge, PA.

TA-W-58,237; *Erie Steel Products Company*, Erie, PA.

The investigation revealed that criteria (a)(2)(A)(I.C.) (increased imports) and (a)(2)(B)(II.B) (No shift in production to a foreign country) have not been met.

TA-W-58,248; *Cerro Fabricated Products, Inc.*, Weyers Cave, VA.

TA-W-58,276; *Allegheny Energy, Inc.*, Information Technology Department, Greensburg, PA.

TA-W-58,286; *Honeywell International, Commercial Aviation Products*, Coon Rapids, MN.

TA-W-58,291; *M. Swift and Sons, Inc.*, Hartford, CT.

TA-W-58,292; *Tembec USA, LLC*, Tembec, Inc., St. Francisville, LA.

TA-W-58,025; *Kealey-Johnson Wholesale Florist*, Abingdon, VA.

The investigation revealed that criteria (a)(2)(A)(I.C.) (Increased imports) and (a)(2)(B)(II.C) (has shifted production to a foreign country) have not been met.

TA-W-58,301; *Xerox Corporation*, Xerox Office Group, Wilsonville, OR.

TA-W-58,309; *OBG Manufacturing Company*, Liberty, KY.

TA-W-58,310; *Resource, Inc.*, Tallmadge, OH.

The workers firm does not produce an article as required for certification under Section 222 of the Trade Act of 1974.

TA-W-58,328; *Motorola, Inc.*, Subscriber Repair Operations, Elgin, IL.

TA-W-58,339; *Saint-Gobain Crystals, Division of Saint-Gobain Ceramics and Plastic*, Washougal, WA.

TA-W-58,353; *James R. Lawson Trucking*, Mill Creek, PA.

TA-W-58,403; *Integreo, Inc.*, Tifton, GA.  
TA-W-58,426; *Laird Technologies*, Schaumburg, IL.

TA-W-58,440; *American Apparel Corporation*, Knoxville, TN.

The investigation revealed that criteria (2) has not been met. The workers firm (or subdivision) is not a supplier or downstream producer to trade-affected companies.

None.

#### Affirmative Determinations for Alternative Trade Adjustment Assistance

In order for the Division of Trade Adjustment Assistance to issue a certification of eligibility to apply for Alternative Trade Adjustment Assistance (ATAA) for older workers, the group eligibility requirements of Section 246(a)(3)(A)(ii) of the Trade Act must be met.

The following certifications have been issued; the date following the company name and location of each determination references the impact date for all workers of such determinations.

In the following cases, it has been determined that the requirements of Section 246(a)(3)(ii) have been met.

I. Whether a significant number of workers in the workers' firm are 50 years of age or older.

II. Whether the workers in the workers' firm possess skills that are not easily transferable.

III. The competitive conditions within the workers' industry (i.e., conditions within the industry are adverse).

TA-W-58,376A; *Lati USA, Inc.*, Summersville, South Carolina, Louisville, KY, 10/31/2004.

TA-W-58,072; *Engineered Specialty Plastics*, Hot Springs, AR, 10/25/2004.

TA-W-58,188; *Staley Fabricators, Inc.*, D/B/A *Wright's Furniture*, Staley, NC, 8/9/2005.

TA-W-58,251; *Foamex LP, Consumer Products Group, Leased Workers—EC Staffing*, Fort Smith, AR, 11/17/2004.

TA-W-58,252; *Flair Design Limited*, Also known as *FDL, Inc.*, Alexandria, IN, 11/17/2004.

TA-W-58,265; *VF Jeanswear Service Support Center*, Greensboro, NC, 11/21/2004.

TA-W-58,285; *Sax Hosiery, Inc.*, Gibsonville, NC, 1/28/2005.

TA-W-58,293; *DeVaughn Woodworks, Inc.*, Marietta, MS, 11/29/2004.

TA-W-58,332; *Vera and Bob Holte Associate, Inc.*, d/b/a *Holte*, Los Angeles, CA, 11/23/2004.

TA-W-58,352; *Cavert Wire Co., Lemont Furnace, PA, 10/4/2004.*

TA-W-58,368; *Coherent, Inc., Electronic Products-Auburn Div, Auburn, CA, 10/21/2004.*

TA-W-58,376; *Lati USA, Inc., Summerville, SC, 11/1/2004.*

TA-W-58,389; *Glass Group, Inc. (The), New Mold Shop, Millville, NJ, 10/9/2004.*

TA-W-58,400; *MoltechPower Systems, Inc., Subsidiary of Shanghai Tyre and Rubber Company, Alachua, FL, 10/31/2004.*

TA-W-58,422; *Western Forge, Murphy, NC, 12/6/2004.*

TA-W-58,434; *Burlen Corporation, Plant #1, Tifton, GA, 12/10/2005.*

TA-W-58,467; *Scottsburg Plastics, Inc., Scottsburg, IN, 10/29/2004.*

TA-W-58,074; *Jasco Fabrics, Inc., New York, NY, 11/1/2004.*

TA-W-58,257; *Motorola, Inc., Embedded Communication Computing, Supply Chain Division, Tempe, AZ, 9/14/2004.*

TA-W-58,266; *U.S. Pipe and Foundry Co., Chattanooga Valve and Fittings Plant, Chattanooga, TN, 10/31/2004.*

TA-W-58,281; *H.B. Williamson Co., d/b/a Williamson Co. (The), Fairfield, IL, 11/2/2004.*

TA-W-58,283; *Hartz and Company, Inc., Hartz-Broadway, Inc. Division, Broadway, VA, 11/7/2004.*

TA-W-58,289; *Eaton, Electrical Components Div., Beaver, PA, 11/8/2004.*

TA-W-58,300; *Kentucky Derby Hosiery Company, Plant 9, Ablest Staffing, Wytheville, VA, 11/10/2004.*

TA-W-58,313; *Superior Essex, Active Industries, Brownsville, TX, 11/10/2004.*

TA-W-58,344; *Bio-Rad Laboratories, Inc., New England Operations, Waltham, MA, 11/29/2004.*

TA-W-58,344A; *Bio-Rad Laboratories, Inc., New England Operations, Watertown, MA, 10/24/2004.*

TA-W-58,420; *Stoneridge Alphabet, Orwell Division, On-Site Leased Workers of Kelly Temporary Services, Orwell, OH, 11/8/2004.*

TA-W-58,443; *Amorim Industrial Solutions, Inc., Corticeira Amorim S.G.P.S., Trevor, WI, 11/23/2004.*

TA-W-58,452; *Ishikawa Gasket America, Inc., Bowling Green, OH, 12/2/2004.*

TA-W-58,460; *Glenoit Fabrics, A Subsidiary of Haikin, USA, Tarboro, NC, 12/5/2004.*

TA-W-58,470; *Great Lakes Industry, Inc., Jackson, MI, 11/28/2004.*

TA-W-58,488; *River City Metal Products, Keokuk, IA, 12/5/2004.*

#### Negative Determinations for Alternative Trade Adjustment Assistance

In order for the Division of Trade Adjustment Assistance to issued a certification of eligibility to apply for Alternative Trade Adjustment Assistance (ATAA) for older workers, the group eligibility requirements of Section 246(a)(3)(A)(ii) of the Trade Act must be met.

In the following cases, it has been determined that the requirements of Section 246(a)(3)(ii) have not been met for the reasons specified.

Since the workers are denied eligibility to apply for TAA, the workers cannot be certified eligible for ATAA.

TA-W-58,177; *Rexnord Disc Coupling Operation, Coupling Division, Warren, PA.*

TA-W-58,201; *Hewlett-Packard Co., IPG—Global Hardware Manufacturing Operations, Boise, ID.*

TA-W-58,208; *Allegheny Ludlum Corp., Plant Protection Department, Brackenridge, PA.*

TA-W-58,237; *Erie Steel Products Company, Erie, PA.*

TA-W-58,248; *Cerro Fabricated Products, Inc., Weyers Cave, VA.*

TA-W-58,276; *Allegheny Energy, Inc., Information Technology Department, Greensburg, PA.*

TA-W-58,286; *Honeywell International, Commercial Aviation Products, Coon Rapids, MN.*

TA-W-58,291; *M. Swift and Sons, Inc., Hartford, CT.*

TA-W-58,292; *Tembec USA, LLC, Tembec, Inc., St. Francisville, LA.*

TA-W-58,301; *Xerox Corporation, Xerox Office Group, Wilsonville, OR.*

TA-W-58,309; *OBG Manufacturing Company, Liberty, KY.*

TA-W-58,310; *Resource, Inc., Tallmadge, OH.*

TA-W-58,328; *Motorola, Inc., Subscriber Repair Operations, Elgin, IL.*

TA-W-58,339; *Saint-Gobain Crystals, Division of Saint-Gobain Ceramics and Plastic, Washougal, WA.*

TA-W-58,353; *James R. Lawson Trucking, Mill Creek, PA.*

TA-W-58,403; *Integreo, Inc., Tifton, GA.*

TA-W-58,426; *Laird Technologies, Schaumburg, IL.*

TA-W-58,440; *American Apparel Corporation, Knoxville, TN.*

TA-W-58,466; *Royal Indemnity Co., A Subsidiary of Royal and Sunalliance USA, Inc., Charlotte, NC.*

TA-W-58,471; *Columbia Gas of Ohio, A Wholly Owned Subsidiary of Nisource, Lorain, OH.*

TA-W-58,329; *Conopco, Inc., Unilever U.S., Asheboro, NC.*

TA-W-58,356; *Rug Barn (The), Abbeville, SC.*

TA-W-58,394; *Georgia-Pacific Corp., Old Town, ME.*

TA-W-58,408; *United States Sugar Corporation, Bryant, FL.*

TA-W-58,475A; *Pendleton Woolen Mills, Inc., Menswear Distribution Ctr., Milwaukie, OR.*

TA-W-58,475B; *Pendleton Woolen Mills, Inc., Bellevue Plant, Bellevue, NE.*

TA-W-58,475C; *Pendleton Woolen Mills, Inc., Washougal Mill, Washougal, WA.*

TA-W-58,475D; *Pendleton Woolen Mills, Inc., Pendleton Mill, Pendleton, OR.*

The Department as determined that criterion (1) of Section 246 has not been met. Workers at the firm are 50 years of age or older.

None.

The Department as determined that criterion (2) of Section 246 has not been met. Workers at the firm possess skills that are easily transferable.

None.

The Department as determined that criterion (3) of Section 246 has not been met. Competition conditions within the workers' industry are not adverse.

None.

I hereby certify that the aforementioned determinations were issued during the month of December 2005. Copies of These determinations are available for inspection in Room C-5311, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210 during normal business hours or will be mailed to persons who write to the above address.

Dated: December 28, 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8294 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

#### DEPARTMENT OF LABOR

##### Employment and Training Administration

[TA-W-58,117]

##### **George Weston Bakeries, Inc., Accounts Payable Department, Bay Shore, NY; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the



Director of the Division of Trade Adjustment Assistance for workers at George Weston Bakeries, Inc., Accounts Payable Department, Bay Shore, New York. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

*TA-W-58,117; George Weston Bakeries, Inc., Accounts Payable Department, Bay Shore, New York (December 21, 2005).*

Signed at Washington, DC this 22nd day of December 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8295 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-57,610]

#### **Gerdau Ameristeel; Beaumont Mill Division; Beaumont, TX; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at Gerdau Ameristeel, Beaumont Mill Division, Beaumont, Texas. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

*TA-W-57,610; Gerdau Ameristeel, Beaumont Mill Division, Beaumont, Texas (December 23, 2005)*

Signed at Washington, DC this 28th day of December 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8287 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-57,995]

#### **Hostmann-Steinberg, Pittsburgh Office, a Division of Hostmann-Steinberg North America, Pittsburgh, PA; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at Hostmann-Steinberg, Pittsburgh Office, a division of Hostmann-Steinberg North America, Pittsburgh, Pennsylvania. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

*TA-W-57,995; Hostmann-Steinberg, Pittsburgh Office, a Division of Hostmann-Steinberg North America, Pittsburgh, Pennsylvania (December 21, 2005)*

Signed at Washington, DC this 22nd day of December 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8290 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-57,968]

#### **IBM Corporation, Business Transformation Outsourcing Division, Maumee, OH; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at IBM Corporation, Business Transformation Outsourcing Division, Maumee, Ohio. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of

facts or of the law. Therefore, dismissal of the application was issued.

*TA-W-57,968; IBM Corporation, Business Transformation Outsourcing Division, Maumee, Ohio (December 21, 2005)*

Signed at Washington, DC this 22nd day of December 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8289 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-58,008]

#### **Inman Mills, Mt. Shoals Plant, Enoree, SC; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C), an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at Inman Mills, St. Shoals Plant, Enoree, South Carolina. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

*TA-W-58,008; Inman Mills, Mt. Shoals Plant, Enoree, South Carolina (December 21, 2005).*

Signed at Washington, DC, this 22nd day of December, 2005.

**Erica R. Cantor,**

*Director, Division of Trade Adjustment Assistance.*

[FR Doc. E5-8293 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-58,025]

#### **Kealey-Johnson Wholesale Florist, Abingdon, VA; Dismissal of Application for Reconsideration**

Pursuant to 29 CFR 90.18(C) an application for administrative reconsideration was filed with the Director of the Division of Trade Adjustment Assistance for workers at Kealey-Johnson Wholesale Florist,

Abingdon, Virginia. The application did not contain new information supporting a conclusion that the determination was erroneous, and also did not provide a justification for reconsideration of the determination that was based on either mistaken facts or a misinterpretation of facts or of the law. Therefore, dismissal of the application was issued.

TA-W-58,025; Kealey-Johnson  
Wholesale Florist, Abingdon,  
Virginia (December 22, 2005).

Signed at Washington, DC this 28th day of December 2005.

Erica R. Cantor,

Director, Division of Trade Adjustment Assistance.

[FR Doc. E5-8296 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-58,298]

#### Messier Services, Inc., a Subsidiary of the Safran Group, Sterling, VA; Notice of Affirmative Determination Regarding Application for Reconsideration

By application of November 29, 2005, a company official 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 negative determination was signed on November 17, 2005. The Department's Notice of Determination will soon be published in the *Federal Register*.

The negative determination was based on the findings that the workers do not produce an article but are engaged in the repair and overhaul of landing gear and hydraulics components. Although the firm or appropriate subdivision produced an article, the petitioning worker group did not support this production. The predominant cause of worker separations is the shift of landing gear and hydraulics repair services from the Sterling, Virginia location to an affiliated facility in Mexico.

The request for reconsideration states that the workers at the subject firm sell spare parts, manufacture bushings (a landing gear component) and rotables (remanufactured completed landing gear units sold to the airline industry).

The Department has carefully reviewed the company's request for reconsideration and has determined that the Department will conduct further

investigation based on the new information provided by the company official.

### 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 30th day of November 2005.

Linda G. Poole,

Certifying Officer, Division of Trade Adjustment Assistance.

[FR Doc. E5-8291 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

#### Financial Reporting Requirements for Programs Currently Reporting on Standard Form 269

**ACTION:** Notice.

**SUMMARY:** The Department of Labor, as part of its continuing effort to reduce paperwork and respondent burden, conducts a preclearance consultation program to provide the general public and Federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95) (44 U.S.C. 3506(c)(2)(A)). This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. ETA is soliciting comments concerning the revised financial reporting requirements for all ETA programs which do not otherwise have OMB approved program-specific financial reporting requirements.

**DATES:** Written comments must be submitted to the office listed in the addressee's section below on or before March 6, 2006.

**ADDRESSES:** Isabel Danley, Office of Grants and Contract Management, Employment and Training Administration, United States Department of Labor, 200 Constitution Avenue, NW., Room N-4716, Washington, DC 20210, 202-693-3047 (this is not a toll-free number), [danley.isabel@dol.gov](mailto:danley.isabel@dol.gov), and/or fax 202-693-3362.

### FOR FURTHER INFORMATION CONTACT:

Isabel Danley, Office of Grants and Contract Management, Employment and Training Administration, United States Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210, 202-693-3047 (this is not a toll-free number), [danley.isabel@dol.gov](mailto:danley.isabel@dol.gov), and/or fax 202-693-3362. Copies of the Paperwork Reduction Act Submission Package, including the proposed revised form and instructions, are at this Web site: <http://www.doleta.gov/Performance/guidance/OMBControlNumber.cfm>.

### SUPPLEMENTARY INFORMATION:

#### I. Background

This proposed information collection notice is requesting a revised financial reporting collection format for all ETA programs currently reporting on the OMB approved Standard Form (SF) 269 (REV 9-99.) The basic financial reporting requirements for all Federal programs are prescribed by OMB Circulars A-102 and A-110. These requirements are codified in Department of Labor Regulations at 29 CFR 95.52 and 29 CFR 97.41, which specify that the SF 269 or such other forms that may be approved by OMB are authorized for obtaining financial information from recipients. Further, the revised U.S. DOL ETA Financial Report is consistent with OMB efforts to streamline Federal financial reporting, pursuant to Public Law 106-107.

#### II. Desired Focus of Comments

Currently, the Department is soliciting comments concerning the revised financial reporting collection format for all ETA programs which currently report on the SF 269 to:

- Evaluate 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;
- Evaluate 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;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submissions of responses.

A copy of the proposed information clearance request (ICR), including the proposed revised form and instructions, can be obtained directly through the Web site: <http://www.doleta.gov/Performance/guidance/OMBControlNumber.cfm> or by contacting the office listed above in the addressee section of this notice.

### III. Current Actions

*Type of Review:* New.  
*Agency:* Employment and Training Administration.  
*Title:* Financial Reporting Requirements for ETA Programs Currently Reporting on SF 269.

*Affected Public:* State agencies, local governments, and/or other for profit and non-profit organizations; and consortia of any and/or all of the above.

*Total Respondents:* 680.  
*Frequency:* Quarterly.

### DOL-ETA REPORTING BURDEN FOR ENTITIES THAT WILL BE REPORTING ON REVISED FINANCIAL STATUS REPORT

	PY 2004			PY 2005		
	PY 2004	FY 2005	Total	PY 2005	FY 2006	Total
Average number of reports per entity per quarter .....	1	1	2	1	1	2
Average number of reports per entity per year .....	4	4	8	4	4	8
Average number of hours required for reporting per quarter per report .....	1/2	1/2	1	1/2	1/2	1
Average number of hours required for reporting per entity per year .....	2	2	4	2	2	4
Number of entities reporting .....	680	680	680	680	680	680
Average number of hours required for reporting burden per year .....	1360	1360	2720	1360	1360	2720
Total burden cost @ \$30.22 per hour .....			\$82,198			\$82,198

**Note:** The above data represents average burden figures for all ETA programs that will be reporting on the revised U.S. DOL ETA Financial Report and that are currently reporting on the SF 269. Programs included in this compilation are: State Employment Security Agencies (SESAs), comprised of Employment Service (ES), Unemployment Service (UI), and Trade Program Grant Agreements (TAs); Hardmark Grants; Business Relations Group High Growth Grants; H-1 B Grants; Youth, comprised of Offender, Foster Care, Opportunity, and Rewarding Achievement Grants; and Performance Incentive Grants. Estimates also include provision for other miscellaneous grants which are yet to be funded, but which will report on the revised Financial Report. (An exception to the average number of reports per entity per quarter are the SESAs which each have 3 components, ES, UI, and Trade, for an approximate total of 25 reports per quarter.) Total burden cost was based upon a GS-12, Step 1 salary as calculated from Salary Table 2005-DCB, effective January 2005.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the ICR; they will become a matter of public record.

Dated: December 28, 2005.

**Emily Stover DeRocco,**

*Assistant Secretary, Employment and Training Administration.*

[FR Doc. E5-8288 Filed 1-4-06; 8:45 am]

BILLING CODE 4510-30-P

### LIBRARY OF CONGRESS

#### Copyright Office

[Docket No. 2005-5 CARP]

#### Notice of Intent To Audit

**AGENCY:** Copyright Office, Library of Congress.

**ACTION:** Public notice.

**SUMMARY:** The Copyright Office of the Library of Congress is announcing receipt of eleven notices of intent to audit eligible nonsubscription and new subscription services that transmit sound recordings under statutory licenses. The audits intend to verify statements of account for the years 2002, 2003, and 2004.

**FOR FURTHER INFORMATION CONTACT:** Tanya M. Sandros, Associate General Counsel, or Gina Giuffreda, Attorney-Advisor, Copyright Arbitration Royalty Panel (CARP), P.O. Box 70977, Southwest Station, Washington, DC 20024-0977. Telephone: (202) 707-8380. Telefax: (202) 252-3423.

**SUPPLEMENTARY INFORMATION:** Section 106(6) of the Copyright Act, title 17 of the United States Code, gives the copyright owner of a sound recording the right to perform the sound recording publicly by means of a digital audio transmission, subject to certain limitations. Among these limitations are certain exemptions and a statutory license which allows for the public performance of sound recordings as part of "eligible nonsubscription transmissions" and digital transmissions made by "new

subscription services."<sup>1</sup> 17 U.S.C. 114. Moreover, these services may make any necessary ephemeral reproductions to facilitate the digital transmission of the sound recording under a second license set forth in section 112(e) of the Copyright Act. Use of these licenses requires that services make payments of royalty fees to and file reports of sound recording performances with SoundExchange. SoundExchange is a collecting rights entity that was designated by the Librarian of Congress to collect statements of account and royalty fee payments from services and distribute the royalty fees to copyright owners and performers entitled to receive such royalties under sections 112(e) and 114(g) following a proceeding<sup>2</sup> before a Copyright Arbitration Royalty Panel ("CARP")—the entity responsible for setting rates and terms for use of the section 112 and section 114 licenses prior to the passage of the Copyright Royalty and Distribution Reform Act of 2004

<sup>1</sup> An "eligible nonsubscription transmission" is a noninteractive digital audio transmission which, as the name implies, does not require a subscription for receiving the transmission. The transmission must also be made as a part of a service that provides audio programming consisting in whole or in part of performances of sound recordings the primary purpose of which is to provide audio or entertainment programming, but not to sell, advertise, or promote particular goods or services. See 17 U.S.C. 114(j)(6).

A "new subscription service" is "a service that performs sound recordings by means of noninteractive subscription digital audio transmissions and that is not a preexisting subscription or a preexisting satellite digital audio radio service." 17 U.S.C. 114(j)(8).

<sup>2</sup> See 69 FR 5693 (February 6, 2004).

("CRDRA"), Public Law No. 108-419, 118 Stat. 2341.

This Act, which the President signed into law on November 30, 2004, and which became effective on May 31, 2005, amends the Copyright Act, title 17 of the United States Code, by phasing out the CARP system and replacing it with three permanent Copyright Royalty Judges ("CRJs"). Consequently, the CRJs will carry out the functions heretofore performed by the CARPs, including the adjustment of rates and terms for certain statutory licenses such as the section 114 and 112 licenses. However, section 6(b)(3) of the Act states in pertinent part:

[t]he rates and terms in effect under section 114(f)(2) or 112(e) \* \* \* on December 30, 2004, for new subscription services [and] eligible nonsubscription services \* \* \* shall remain in effect until the later of the first applicable effective date for successor terms and rates \* \* \* or such later date as the parties may agree or the Copyright Royalty Judges may establish.

Successor rates and terms for these licenses have not yet been established. Accordingly, the terms of the section 114 and 112 licenses, as currently constituted, are still in effect.

One of the current terms, set forth in § 262.6 of title 37 of the Code of Federal Regulations, states that SoundExchange, as the Designated Agent, may conduct a single audit of a Licensee for the purpose of verifying their royalty payments. As a preliminary matter, the Designated Agent is required to submit a notice of its intent to audit a Licensee with the Copyright Office and serve this notice on the service to be audited. 37 CFR 262.6(c).

On December 23, 2005, SoundExchange filed with the Copyright Office eleven notices of intent to audit the following eligible nonsubscription and new subscription services for the years 2002, 2003, and 2004: Bonneville International Corporation;<sup>3</sup> Susquehanna Radio Corp.;<sup>4</sup> RealNetworks, Inc.;<sup>5</sup> Clear Channel Communications, Inc.;<sup>6</sup>

<sup>3</sup> A copy of the Notice of Intent to Audit Bonneville International Corporation is posted on the Copyright Office website at <http://www.copyright.gov/carp/bonneville-notice.pdf>.

<sup>4</sup> A copy of the Notice of Intent to Audit Susquehanna Radio Corp. is posted on the Copyright Office website at <http://www.copyright.gov/carp/susquehanna-notice.pdf>.

<sup>5</sup> A copy of the Notice of Intent to Audit RealNetworks, Inc. is posted on the Copyright Office website at <http://www.copyright.gov/carp/realnetworks-notice.pdf>.

<sup>6</sup> A copy of the Notice of Intent to Audit Clear Channel Communications, Inc. is posted on the Copyright Office website at <http://www.copyright.gov/carp/clearchannel-notice.pdf>.

America Online, Inc.;<sup>7</sup> Beethoven Radio;<sup>8</sup> MTV Networks;<sup>9</sup> Microsoft Corporation;<sup>10</sup> Live365, Inc.;<sup>11</sup> Cox Radio Interactive;<sup>12</sup> and Yahoo!, Inc.<sup>13</sup> As stated in § 262.6(c), the Copyright Office then is required to publish a notice in the *Federal Register* within thirty days of receipt of the filing announcing the Designated Agent's intent to conduct an audit.

In accordance with this regulation, the Office is publishing today's notice to fulfill this requirement with respect to SoundExchange's eleven notices of intent to audit identified herein.

Dated: December 30, 2005.

**Tanya M. Sandros,**

*Associate General Counsel.*

[FR Doc. E5-8309 Filed 1-4-06; 8:45 am]

BILLING CODE 1410-33-P

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice (05-177)]

### National Environmental Policy Act; Advanced Radioisotope Power Systems

**AGENCY:** National Aeronautics and Space Administration (NASA).

**ACTION:** Notice of availability of Draft Programmatic Environmental Impact Statement (DPEIS) for the Development of Advanced Radioisotope Power Systems.

**SUMMARY:** Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 *et seq.*), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500-1508), and NASA policy and procedures (14 CFR subpart

<sup>7</sup> A copy of the Notice of Intent to Audit America Online, Inc. is posted on the Copyright Office website at <http://www.copyright.gov/carp/aol-notice.pdf>.

<sup>8</sup> A copy of the Notice of Intent to Audit Beethoven Radio is posted on the Copyright Office website at <http://www.copyright.gov/carp/beethoven-notice.pdf>.

<sup>9</sup> A copy of the Notice of Intent to Audit MTV Networks is posted on the Copyright Office website at <http://www.copyright.gov/carp/mtv-notice.pdf>.

<sup>10</sup> A copy of the Notice of Intent to Audit Microsoft Corporation is posted on the Copyright Office website at <http://www.copyright.gov/carp/microsoft-notice.pdf>.

<sup>11</sup> A copy of the Notice of Intent to Audit Live365, Inc. is posted on the Copyright Office website at <http://www.copyright.gov/carp/live365-notice.pdf>.

<sup>12</sup> A copy of the Notice of Intent to Audit Cox Radio Interactive is posted on the Copyright Office website at <http://www.copyright.gov/carp/coxradi-notice.pdf>.

<sup>13</sup> A copy of the Notice of Intent to Audit Yahoo!, Inc. is posted on the Copyright Office website at <http://www.copyright.gov/carp/yahoo-notice.pdf>.

1216.3), NASA has prepared and issued a DPEIS for the proposed development of two new types of advanced Radioisotope Power Systems (RPSs), the Multi-Mission Radioisotope Thermoelectric Generator (MMRTG) and the Stirling Radioisotope Generator (SRG).

The purpose of this proposed action is to develop advanced power systems, specifically the MMRTG and the SRG, that would enable a broad range of long-term space exploration missions and would be able to function in the environments encountered in space and on the surfaces of planets, moons, and other solar system bodies that have an atmosphere. Included in this proposed action are NASA's long-term research and development (R&D) activities focused on alternative radioisotope power systems and power conversion technologies. The long-term R&D activities could include, but not necessarily be limited to, improvements to further increase the versatility of future RPS designs, expanding their capability and the environments in which they can operate. The long-term R&D activities are also expected to include activities to develop RPS designs with smaller electric outputs and efforts to reduce the mass of power conversion systems to further improve specific power (watts of electrical power per unit of mass). Such long-term R&D activities do not involve the use of radioactive material.

The only alternative to the Proposed Action considered in detail is the No Action Alternative, where NASA would discontinue development efforts for the production of the MMRTG and the SRG and would continue to consider the use of currently available RPSs, such as the General Purpose Heat Source-Radioisotope Thermoelectric Generator (GPHS-RTG), for future exploration missions. As with the Proposed Action, NASA's long-term R&D activities on alternative radioisotope power systems and power conversion technologies would continue.

**DATES:** Written comments on the DPEIS must be received by NASA on or before February 20, 2006, or 45 days from the date of publication in the *Federal Register* of the U.S. Environmental Protection Agency notice of availability of the DPEIS for the Development of Advanced Radioisotope Power Systems, whichever is later.

**ADDRESSES:** Comments submitted via first class, registered, or certified mail should be addressed to Dr. Ajay Misra, Science Mission Directorate, Mail Code 3C67, Room 3N36, NASA Headquarters, 300 E Street SW., Washington, DC



20546-0001. Comments submitted via express mail, a commercial deliverer, or courier service should be addressed to Dr. Ajay Misra, Science Mission Directorate, Mail Code 3C67, Room 3N36, Attn: Receiving & Inspection (Rear of Building), NASA Headquarters, 300 E Street SW., Washington, DC 20024-3210. While hard copy comments are preferred, comments by electronic mail may be sent to [rpseis@nasa.gov](mailto:rpseis@nasa.gov).

The DPEIS may be reviewed at the following locations:

(a) NASA Headquarters, Library, Room 1J20, 300 E Street, SW., Washington, DC 20546.

(b) NASA, NASA Information Center, Glenn Research Center, 21000 Brookpark Road, Cleveland, OH 44135 (216-433-2755).

(c) Jet Propulsion Laboratory, Visitors Lobby, Building 249, 4800 Oak Grove Drive, Pasadena, CA 91109 (818-354-5179).

In addition, hard copies of the DPEIS may be examined at other NASA Centers (see **SUPPLEMENTARY INFORMATION** below).

A limited number of hard copies of the DPEIS are available, on a first request basis, by contacting Dr. Ajay Misra at the above address or telephone number indicated below. The DPEIS also is available in Acrobat® portable document format at <http://spacescience.nasa.gov/admin/pubs/rps/>.

**FOR FURTHER INFORMATION CONTACT:** Dr. Ajay Misra, Science Mission Directorate, Mail Code 3C67, Room 3N36, NASA Headquarters, 300 E Street SW., Washington, DC 20546-0001, telephone 202-358-1588, or electronic mail [rpseis@nasa.gov](mailto:rpseis@nasa.gov).

**SUPPLEMENTARY INFORMATION:** NASA, in cooperation with the U.S. Department of Energy (DOE), proposes to:

(1) Develop in the near-term and qualify for flight two advanced RPSs, the MMRTG and the SRG. The MMRTG and the SRG would be able to satisfy a broader range of future space exploration missions than are currently possible with existing radioisotope power technologies, specifically the GPHS-RTG used on the Galileo, Ulysses, Cassini, and the planned New Horizons missions. (The GPHS generates heat from the radioactive decay of plutonium-238 dioxide, a non-weapons isotope of plutonium, for conversion to electricity.) The advanced RPSs would be capable of providing long-term, reliable electrical power to spacecraft and function in the environments encountered in space and on the surfaces of planets, moons and

other solar system bodies that have an atmosphere (e.g., Mars, Venus, Pluto, and two moons of Saturn (Titan and Enceladus)). The RTGs used on NASA's Galileo, Ulysses, Cassini, and the planned New Horizons missions employ the GPHS module developed by DOE, fueled by plutonium dioxide (consisting mostly of plutonium-238), as a heat source. The advanced RPS designs would generate power from the heat given off by an enhanced version of the GPHS module; and

(2) Continue NASA's long-term R&D of alternative radioisotope power systems and power converter technologies. These long-term R&D efforts are addressed under both the Proposed Action and the No Action Alternative as these efforts will continue irrespective of the alternative selected by NASA. Such R&D activities do not involve use of radioactive material.

The MMRTG would build upon spaceflight-proven passive thermoelectric power conversion technology while incorporating improvements to allow extended operation on solar system bodies that have an atmosphere. Both the MMRTG and the SRG configurations, as proposed, would consist of three basic elements: the enhanced GPHS heat source, the converter, and an outer case with a heat radiator. The converter thermocouple that would be employed in the MMRTG has a history of use in diverse environments. The converter thermocouple design is based on the Systems for Nuclear Auxiliary Power (SNAP)-19 RTG, which was used successfully on the Viking Mars Landers and the Pioneer spacecrafts in the 1970's. For the SRG, NASA, in cooperation with DOE, would develop a new dynamic power conversion system based on the Stirling engine. The Stirling conversion system would convert the heat from the decay of plutonium into electrical power much more efficiently than the MMRTG and therefore use considerably less plutonium dioxide to generate comparable amounts of electrical power. Because the SRG uses less plutonium dioxide than the MMRTG, the SRG generates less waste (excess) heat. Therefore, an SRG also may be beneficial for missions where excess heat would adversely impact spacecraft operation, but perhaps undesirable for missions where excess heat from the RPS is needed for warming spacecraft components.

An RPS generates electrical power by converting the heat released from the nuclear decay of radioisotopes, such as plutonium-238, into electricity. First used in space by the U.S. in 1961, these

devices have consistently demonstrated unique capabilities over other types of space power systems for applications up to several hundred watts of electric power. Radioisotopes can also serve as a versatile energy source for heating and maintaining the temperature of sensitive electronics in space. A key advantage of using RPSs is their ability to operate continuously, both further away from and closer to the Sun than other existing space power technologies. RPSs are long-lived, rugged, compact, highly reliable, and relatively insensitive to radiation and other environmental effects. As such, they enable missions involving long-lived, autonomous operations in the extreme conditions of space and the surfaces of solar system bodies. The GPHS-RTG, used on the ongoing Cassini mission to Saturn and the planned New Horizons mission to Pluto, is an RPS that is capable of operating in the vacuum of space; however, it has limited capabilities for operating on surface missions where an atmosphere is present. With the appropriate design, such as on the SNAP-19 RTG for the Viking missions, an RPS would have the capability to function in a wider range of surface conditions than the GPHS-RTG.

Current energy production and storage technologies available to NASA, such as batteries, solar arrays, and fuel cells are unable to deliver the reliable electric power needed for some types of missions. The existing GPHS-RTG used on previous orbital missions has limited applicability on surfaces that have an atmosphere. The performance of the GPHS-RTG, which is designed to operate un-sealed in space vacuum, degrades in most atmospheres and does not provide the long-term operating capabilities desired for surface missions. In addition, the GPHS-RTG provides power in the upper 200's watts of electricity ( $W_e$ ). NASA envisions the need for lower levels of electric power (approximately 100  $W_e$ ), and physically smaller power systems, enabling NASA to more efficiently fly smaller missions that require less power than that provided by the GPHS-RTG. The advanced RPS designs are considered modular units. Thus one or more of these devices could be fitted to a spacecraft for a mission requiring higher levels of electric power.

The advanced RPSs would enable missions with substantial longevity, flexibility, and greater scientific exploration capability. Some possibilities are:

1. Comprehensive and detailed planetary investigations creating comparative data sets of the outer planets—Jupiter, Saturn, Uranus,



Neptune and Pluto and their moons. The knowledge gained from these data sets would be vital to understanding other recently discovered planetary systems and general principles of planetary formation.

2. Comprehensive exploration of the surfaces and interiors of comets, possibly including returned samples to better understand the building blocks of our solar system and ingredients contributing to the origin of life.

3. Expanded capabilities for surface and on-orbit exploration, and potential sample return missions to Mars and other planetary bodies to greatly improve our understanding of planetary processes, particularly those affecting the potential for life.

NASA's long-term R&D efforts involving alternative radioisotope power systems and power converter technologies are on-going activities. These ongoing R&D activities focus on longer-term improvements to RPSs that are less technologically developed than the MMRTG and SRG. Included are technologies that increase specific power (electrical power output per unit mass); increase efficiencies for power conversion technologies; improve modularity; increase reliability, lifetime, and operability; and provide improved capability to operate in harsh environments. These advancements would provide for greater power system flexibility enabling use in more places in space and on solar system bodies. The R&D efforts directed at power conversion technologies have applicability to both radioisotope and non-radioisotope power systems. The results of this R&D could be applied to improve the MMRTG or SRG design, to facilitate evolutionary RPS designs including RPS designs with smaller electrical outputs using GPHSs or radioisotope heater units, and to improve non-radiological power systems. Future fabrication of fueled RPSs, qualification units (used to demonstrate the readiness of a design for flight applications) and flight units, stemming from this R&D would be the subject of future NEPA documentation. The long-term R&D activities are addressed under both the Proposed Action and the No Action Alternative as these efforts would continue independent of the alternative selected by NASA. In addition, NASA will continue to evaluate power systems developed independently by other organizations for their viability in space-based applications. As such, the discussion of longer-term R&D is for completeness and descriptive purposes only.

It is anticipated that development and test activities involving the use of radioisotopes would be performed at existing DOE sites that routinely perform similar activities. DOE currently imports from Russia plutonium dioxide needed to support NASA activities. Radioisotope fuel processing and fabrication would likely occur at existing facilities at Los Alamos National Laboratory (LANL) in Los Alamos, New Mexico, which are currently used for the fabrication of the fuel for the GPHS modules. The advanced RPS assembly and testing would likely be performed at Idaho National Laboratory (INL), west of Idaho Falls, Idaho. Any required additional safety testing (using a non-radioactive fuel substitute to simulate the mechanical properties of the plutonium dioxide fuel) of an advanced RPS could be performed at one or more of several existing facilities; including DOE facilities such as LANL and Sandia National Laboratory in Albuquerque, New Mexico, or U.S. Army facilities at Aberdeen Proving Ground in Aberdeen, Maryland. Currently, DOE is considering plans to consolidate operations for the domestic production of plutonium at its INL facility; the NEPA process for this action is on-going (70 FR 38132). NASA holds no stake in the decision ultimately taken by DOE related to consolidation of its long-term production of plutonium-238. NASA's Proposed Action or implementation of the No Action Alternative is independent of the decision that will be made by DOE after that NEPA process is completed.

Activities not requiring the use of radioisotopes and associated with the development, testing, and verification of the power conversion systems could be performed at several existing facilities including NASA facilities (such as the Glenn Research Center at Lewis Field, Cleveland, Ohio and the Jet Propulsion Laboratory, Pasadena, California) and several commercial facilities (Pratt & Whitney Rocketdyne, Canoga Park, California; Teledyne Energy Systems, Hunt Valley, Maryland; Infinia Corporation, Kennewick, Washington; Lockheed Martin Commercial Space Systems, Newtown, Pennsylvania; and Lockheed Martin Space Systems Company, King of Prussia, Pennsylvania).

The only alternative to the Proposed Action considered in detail, the No Action Alternative, is to discontinue development efforts for the production of the MMRTG and SRG. NASA would continue to consider the use of available RPSs, such as the GPHS-RTG, for future solar system exploration missions.

While well suited to use in space, the GPHS-RTG would have substantially limited application on missions to the surface of solar system bodies where an atmosphere is present. In addition, DOE's GPHS-RTG production line is no longer operative, including the Silicon/Germanium thermocouple manufacturing operations. It may be possible to construct a limited number of GPHS-RTGs (one or two) from existing parts inventories, but longer term reliance on this technology would require the reactivation of these production capabilities, including reestablishing vendors for GPHS-RTG components, which could involve a substantial financial investment.

The principal near- and mid-term activities associated with the Proposed Action and potential environmental impacts include: development of 100 W<sub>e</sub> capable MMRTG and SRG units and demonstration of performance in flight qualified, fueled systems. Development of these systems requires component and integrated systems testing of unfueled units, acquisition of plutonium dioxide, fabrication of fuel, assembly of a fueled test RPS and safety and acceptance testing of that fueled RPS. Impacts from similar past activities associated with the GPHS-RTG used for the Galileo, Ulysses, Cassini, and the planned New Horizons mission to Pluto are well understood and have been documented in past NEPA documents. Potential environmental impacts associated with development of the flight-qualified MMRTG and the SRG would be similar to those associated with the GPHS-RTG and are expected to be within the envelope of previously-prepared DOE NEPA documentation for the facilities that are involved in this effort.

NASA's ongoing long-term R&D activities for alternative power systems and advanced power conversion technologies are small-scale, laboratory activities. No radioisotopes are involved and only small quantities of hazardous materials might be involved. The potential for impacts on worker health, public health, and the environment from these R&D activities is small.

Actual use of an MMRTG or SRG on a specific spacecraft proposed for launch from any U.S. launch site (e.g., Kennedy Space Center/Cape Canaveral Air Force Station, Vandenberg Air Force Station) would be subject to mission-specific NASA NEPA documentation. Potential integrated system development (i.e., full system development requiring the integration of the RPS converter with a radioisotope fuel source) and production of any new generation of space-qualified RPSs

(beyond the MMRTG and SRG) that results from the related long-term R&D of technologies (e.g., more efficient systems or systems producing smaller electrical power output), are beyond the scope of this DPEIS, and would be subject to separate NEPA documentation.

The DPEIS may be examined at the following NASA locations by contacting the pertinent Freedom of Information Act Office:

(a) NASA, Ames Research Center, Moffett Field, CA 94035 (650-604-1181).

(b) NASA, Dryden Flight Research Center, P.O. Box 273, Edwards, CA 93523 (661-258-3449).

(c) NASA, Goddard Space Flight Center, Greenbelt Road, Greenbelt, MD 20771 (301-286-6255).

(d) NASA, Johnson Space Center, Houston, TX 77058 (281-483-8612).

(e) NASA, Kennedy Space Center, FL 32899 (321-867-9280).

(f) NASA, Langley Research Center, Hampton, VA 23681 (757-864-2497).

(g) NASA, Marshall Space Flight Center, Huntsville, AL 35812 (256-544-2030).

(h) NASA, Stennis Space Center, MS 39529 (228-688-2164).

Any person, organization, or governmental body or agency interested in receiving a copy of NASA's Record of Decision after it is rendered should so indicate by mail or electronic mail to Dr. Misra at the addresses provided above.

Written public input and comments on alternatives and environmental issues and concerns associated with the proposed development of the MMRTG or SRG are hereby requested.

**Jeffrey E. Sutton,**

*Assistant Administrator for Infrastructure and Administration.*

[FR Doc. E5-8280 Filed 1-4-06; 8:45 am]

BILLING CODE 7510-13-P

## NUCLEAR WASTE TECHNICAL REVIEW BOARD

**Board Meetings: February 1, 2006—Las Vegas, NV; The U.S. Nuclear Waste Technical Review Board Will Meet To Discuss Technical and Scientific Issues Related to the U.S. Department of Energy's Efforts To Develop a Repository at Yucca Mountain in Nevada**

Pursuant to its authority under section 5051 of Public Law 100-203, Nuclear Waste Policy Amendments Act of 1987, the U.S. Nuclear Waste Technical Review Board will meet in Las Vegas, Nevada, on Wednesday,

February 1, 2006. The Board was charged in the Nuclear Waste Amendments Act of 1987 with conducting an independent review of the technical and scientific validity of U.S. Department of Energy (DOE) activities related to disposing of, packaging, and transporting spent nuclear fuel and high-level radioactive waste. At the meeting, the Board will review DOE efforts to develop a fundamental understanding of phenomena that would affect radionuclide releases from a proposed repository for permanent disposal of the waste at Yucca Mountain in Nevada. A final meeting agenda will be available on the Board's Web site (<http://www.nwtrb.gov>) approximately one week before the meeting date. The agenda also may be obtained by telephone request at that time. The meeting will be open to the public, and opportunities for public comment will be provided.

The meeting will be held at the Desert Research Institute; 755 East Flamingo Road; Las Vegas, Nevada 89119; telephone 702-862-5307; fax 702-862-5362. The meeting will begin at 8 a.m. and will continue until approximately 6 p.m.

The meeting agenda will focus on DOE predictions and understanding of fundamental scientific and technical phenomena that affect the flux of water and radionuclides through the unsaturated zone, repository tunnels, and the saturated zone. Geochemical controls on potential radionuclide releases from the waste packages, the NRC's perspective on dose standards beyond 10,000 years, and risk-informed performance assessment also will be discussed.

Time will be set aside at the end of the day for public comments. Those wanting to speak are encouraged to sign the "Public Comment Register" at the check-in table. A time limit may have to be set on individual remarks, but written comments of any length may be submitted for the record.

Transcripts of the meetings will be available on the Board's Web site, by e-mail, on computer disk, and on a library-loan basis in paper format from Davonya Barnes of the Board's staff, beginning on February 25, 2006.

A block of rooms has been reserved for meeting participants at the Palms Casino Resort; 4321 West Flamingo Road; Las Vegas, Nevada 89103; telephone 702-942-7777; fax 702-942-7001. When making a reservation, please state that you are attending the Nuclear Waste Technical Review Board meeting. Reservations should be made

by January 6, 2006, to ensure receiving the meeting rate.

For more information, contact Karyn Severson, NWTRB External Affairs; 2300 Clarendon Boulevard, Suite 1300; Arlington, VA 22201-3367; 703-235-4473; fax 703-235-4495.

Dated: December 30, 2005.

**William D. Barnard,**

*Executive Director, Nuclear Waste Technical Review Board.*

[FR Doc. 06-84 Filed 1-4-06; 8:45 am]

BILLING CODE 6820-AM-M

## POSTAL RATE COMMISSION

### Plant Tours

**AGENCY:** Postal Rate Commission.

**ACTION:** Notice of Commission tours.

**SUMMARY:** Postal Rate Commissioners and advisory staff members will tour postal and mailers' facilities in January. The purpose of the tours is to observe mailing operations

**DATES:** 1. Friday, January 6, 2006: U.S. Postal Service bulk mail facility, Largo, Maryland.

2. Tuesday, January 10, 2006: U.S. Postal Service Priority Mail processing area, Dulles, Virginia postal facility.

3. Thursday, January 12, 2006: FedEx mail processing operations, Memphis, Tennessee.

### FOR FURTHER INFORMATION CONTACT:

Stephen L. Sharfman, General Counsel, Postal Rate Commission, (202) 789-6818.

**Garry J. Sikora,**

*Acting Secretary.*

[FR Doc. 06-67 Filed 1-4-06; 8:45 am]

BILLING CODE 7710-FW-M

## RAILROAD RETIREMENT BOARD

### Actuarial Advisory Committee With Respect to the Railroad Retirement Account; Notice of Public Meeting

Notice is hereby given in accordance with Public Law 92-463 that the Actuarial Advisory Committee will hold a meeting on January 23, 2006, at 11:30 a.m. at the office of the Chief Actuary of the U.S. Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois, on the conduct of the 23rd Actuarial Valuation of the Railroad Retirement System. The agenda for this meeting will include a discussion of the assumptions to be used in the 23rd Actuarial Valuation. A report containing recommended assumptions and the experience on which the

recommendations are based will have been sent by the Chief Actuary to the Committee before the meeting.

The meeting will be open to the public. Persons wishing to submit written statements or make oral presentations should address their communications or notices to the RRB Actuarial Advisory Committee, c/o Chief Actuary, U.S. Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois 60611-2092.

Dated: December 29, 2005.

**Beatrice Ezerski,**

*Secretary to the Board.*

[FR Doc. 06-60 Filed 1-4-06; 8:45 am]

BILLING CODE 7905-01-M

## SECURITIES AND EXCHANGE COMMISSION

### Proposed Collection; Comment Request

Upon written request, copies available from: Securities and Exchange Commission, Office of Filings and Information Services, Washington, DC 20549.

Regulation AC; SEC File No. 270-517; OMB Control No. 3235-0575.

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission ("Commission") is soliciting comments on the collections of information summarized below. The Commission plans to submit a request for approval of the previously approved collection of information discussed below.

### Regulation Analyst Certification (Regulation AC)

Regulation Analyst Certification requires that any research report disseminated by broker, dealer, or person associated with a broker or dealer include certifications by the research analyst that the views expressed in the research report accurately reflect the analyst's personal views, and whether the analyst received compensation in connection with his or her specific recommendations or views. A research analyst would also be required to provide certifications and disclosures in connection with public appearances. Although research analysts are often viewed by investors as experts and as important sources of information about the securities and companies they cover, many factors can create pressure on their independence and objectivity. By requiring these certifications and disclosures, Regulation AC should promote the integrity of research reports

and investor confidence in the recommendations contained in those reports. Commission estimates that Regulation AC would result in a total annual time burden of approximately 11,296 hours (10,950 hours to comply with research report requirements + 346 hours to comply with public appearance requirements).

The collections of information under Regulation AC are necessary for covered persons to obtain certain benefits or to comply with certain requirements. The collections of information are necessary to provide investors with information with which to determine the value of the research available to them. The Commission may review this information during periodic examinations or with respect to investigations. Covered persons must also promptly provide copies of statements that the analyst is unable to provide the certifications in connection with public appearances to its examining authority, designated pursuant to Section 17(d) of the Exchange Act and Rule 17d-2 thereunder. Further, broker-dealers must keep and maintain these records pursuant to Rule 17a-4(b)(4).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the agency displays a valid OMB control number.

Written 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 will 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 collected; and (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. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Please direct your written comments to R. Corey Booth, Director/Chief Information Officer, Office of Information Technology, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549.

Dated: December 28, 2005.

**Nancy M. Morris,**

*Secretary.*

[FR Doc. E5-8284 Filed 1-4-06; 8:45 am]

BILLING CODE 8010-01-P

## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-53036; File No. SR-FICC-2005-18]

### Self-Regulatory Organizations; Fixed Income Clearing Corporation; Notice of Filing of Proposed Rule Change and Amendment No. 1 Thereto To Enhance the Repo Collateral Substitution Process of FICC's Government Securities Division

December 29, 2005.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),<sup>1</sup> notice is hereby given that on September 30, 2005, the Fixed Income Clearing Corporation ("FICC") filed with the Securities and Exchange Commission ("Commission") and on December 20, 2005, amended the proposed rule change described in Items I, II, and III below, which items have been prepared primarily by FICC. The Commission is publishing this notice to solicit comments on the proposed rule change from interested parties.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The purpose of this proposed rule change is to enhance the repo collateral substitution process of FICC's Government Securities Division ("GSD").

#### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, FICC 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 IV below. FICC has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of these statements.<sup>2</sup>

#### (A) Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

##### 1. Initial Substitution Notification Without Replacement Collateral Information

The GSD's repo collateral substitution process provides a mechanism for a repo dealer to process its right to substitute the original collateral it

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> The Commission has modified the text of the summaries prepared by FICC.

provided as part of a repo transaction with replacement collateral. With respect to a brokered transaction,<sup>3</sup> typically the repo dealer notifies the relevant broker that it wishes to substitute the repo collateral before it specifically identifies what the replacement collateral will be. The broker then contacts the reverse repo dealer and informs it that a repo collateral substitution process is being initiated, at which time the reverse repo dealer sends the original repo collateral to FICC. However, since under FICC's current system the repo dealer's substitution notification sent to FICC must contain information about the replacement collateral, often the substitution notification is not delivered to FICC at the time FICC receives the returned original repo collateral from the reverse repo dealer. When the repo dealer does determine what securities will constitute the replacement collateral, it often delivers the replacement collateral to FICC before sending the repo collateral substitution notification. Thus the parties have delivered the respective collateral to FICC, but until FICC receives the substitution notification, it is not able to deliver the collateral to the appropriate parties. This leaves FICC in an overdraft position at the clearing bank(s), which can cause expense and risk to FICC and to its members and settlement processing delays.

The proposed rule change will permit the repo dealer or repo broker, as appropriate, to submit a substitution notification to FICC without information about the replacement collateral. FICC will deliver the original collateral to the repo party's account at its clearing bank(s) upon receipt of the substitution notification so the original collateral will no longer linger in FICC's account. FICC believes this will encourage repo dealers to allocate replacement collateral more timely since they will be financing the original collateral intraday.<sup>4</sup>

<sup>3</sup> With respect to a non-brokered repo transaction, the repo dealer would contact the reverse repo dealer directly about the repo collateral substitution.

<sup>4</sup> The changes necessary to reflect this part of the rule change are contained in GSD Rule 18, Sections 3(a), (b), (c), and (d) and in the Schedule of Required and Accepted Data Submission Items for a Right of Substitution. A new schedule, titled Schedule of Required and Accepted Data Submission Items for New Securities Collateral, is being proposed to be added to the rules to reflect that information on the replacement collateral will be contained in a separate submission to FICC.

## 2. Revised Repo Collateral Substitution Process Deadline and Fee Schedule

The proposed change in repo processing requires a revision to GSD's schedule of timeframes. Also, in order to further encourage timely submission of collateral requests and the associated required information, FICC is proposing to add a new late fee to the repo substitution process. Currently, there is a two-tiered deadline and associated late fee for a repo party to submit a substitution notification.<sup>5</sup> The proposed rule change would establish: (i) An 11:00 a.m. Eastern Time deadline<sup>6</sup> for a repo party to submit a substitution notification and (ii) a late fee of \$100 for each substitution notification that is received after the deadline. The proposed rule change also would establish a two-tiered deadline and associated late fee schedule for a repo party to submit replacement collateral information. The proposed deadlines for submission of replacement collateral information are: (i) 12:00 p.m. Eastern Time and (ii) 12:30 p.m. Eastern Time. The proposed late fee assessments are: (i) \$100 for each submission of replacement collateral information that is received after the first deadline but before the second deadline and (ii) \$250 for each submission of replacement collateral information that is received after the second deadline.<sup>7</sup>

## 3. Risk Management Measures and Technical Changes

As part of the proposed rule change, FICC believes it is necessary to address the risk presented to FICC in the repo collateral substitution process by the failure of a party to timely submit information regarding the replacement collateral to FICC. The risk that arises in such a situation, is that by the time FICC receives the information about the replacement collateral, the replacement collateral may have a different market value than the original collateral on

<sup>5</sup> The current deadlines are 12:00 p.m. Eastern Time and 12:30 p.m. Eastern Time. The deadlines are extended by one hour on days that: (i) FICC determines are high-volume days or (ii) The Bond Market Association announces in advance will be high-volume days. FICC assesses a late fee of: (i) \$100 for each substitution notification that is received after the first deadline but before the second deadline and (ii) \$250 for each substitution notification that is received after the second deadline.

<sup>6</sup> The proposed 11:00 a.m. Eastern Time deadline will not be extended on high-volume days.

<sup>7</sup> The proposed allocation of collateral deadlines will be extended by one hour on days that: (i) FICC determines are high-volume days or (ii) The Bond Market Association announces in advance will be high-volume days. The rule changes necessary to affect this part of the proposed rule are contained in the Schedule of Timeframes and in the Fee Structure under "Late Fees."

which FICC's margin calculations were based. To address this, FICC is proposing certain risk management measures. Specifically, FICC will: (i) increase the clearing fund calculation of the repo dealer and allow margining with respect to replacement collateral based on applicable generic CUSIP numbers only;<sup>8</sup> and (ii) impose mark-to-market consequences on both the repo dealer and the reverse dealer with respect to unknown replacement collateral.

A. *Clearing Fund Calculation and Permissible Margin Offsets.* With respect to the calculation of the repo dealer's clearing fund requirement, FICC will assign a value to a repo transaction where FICC has not received information regarding the replacement collateral, which value will be 150 percent of the contract value of the original securities collateral.<sup>9</sup> FICC will also apply the highest applicable margin factor in its rules in connection with the repo transaction. In GSD's rules, the highest margin factor is the factor for securities with a remaining maturity of fewer than 30 years. Therefore, if the generic CUSIP number that is assigned to the unknown replacement collateral is the generic CUSIP number for Treasury securities with a remaining maturity of under 30 years, FICC will use the existing margin factor of 1.450 (applicable to category 1 members with positions in non-zeros).<sup>10</sup>

The proposed risk management measures applicable to non-timely allocation of replacement collateral will further affect the clearing fund calculation of the repo dealer by limiting permissible offsets. A regular part of the GSD's margining system is to permit offsets between resulting margin amounts of long and short net settlement positions. The GSD's rules contain disallowance factor tables that set forth specific limits on these permissible offsets. For example, where a short net settlement position in Treasury Offset Class A is to be offset

<sup>8</sup> Generic CUSIP numbers represent the range of permissible securities that can constitute the replacement collateral. For example, there is a generic CUSIP number which represents Treasury securities with remaining maturity of fewer than thirty years.

<sup>9</sup> New subsection 3(f) has been proposed to be added to Rule 18 in order to effect this change. It should be noted that the application of the 150 percent for clearing fund purposes applies to both the receive/deliver and repo volatility components of the clearing fund calculation.

<sup>10</sup> The GSD's margin factor schedules apply different margin factors to category 1 and category 2 dealers. In this example, if the member were a category 2 member electing not to receive credit forward mark adjustment payments, the applicable margin factor under the proposed rule change would be 1.5.



against a long net settlement position in Treasury Offset Class B, the applicable disallowance factor table rules provides that 20 percent of this offset will be disallowed. For offset purposes under the proposed rule change, FICC will define two new offset classes to capture the generic CUSIP numbers that can be assigned to unknown replacement collateral. These new offset classes will be identified as "H" for Treasury securities and "h" for non-mortgage-backed Agency securities. Under the proposed rule change, as a further risk management measure, FICC will not permit offsets: (i) Between Offset Classes H and h or (ii) between Offset Classes H or h on the one hand and other existing GSD Offset Classes on the other.

**B. Modified Mark-to-Market Calculation.** FICC also believes that a prudent risk management measure in the case where a generic CUSIP number is used for underlying collateral will be to calculate a modified mark-to-market obligation with respect to the replacement collateral and to impose this on both the repo dealer and the reverse repo dealer. In a typical scenario where the replacement collateral is identified, FICC reverses any previous mark-to-market calculation for the old collateral and recalculates, collects, and passes through a mark-to-market associated with the actual replacement collateral. This computation is defined as the Forward Mark Adjustment Payment.<sup>11</sup> In the scenario where the replacement collateral has not been identified, FICC will calculate a modified Forward Mark Adjustment Payment to protect FICC against market risk. Specifically, the definition of Forward Mark Adjustment Payment will be amended by noting that, with respect to a repo transaction for which a substitution request has been made but for which replacement collateral information has not been provided to FICC, a new Forward Unallocated Sub Mark will be applied. This new mark will take into account repo interest that has accrued with respect to the repo transaction to date, as well as changes in the repo rate (to reflect the difference between the contract rate and the market rate for the remaining term of the repo transaction).<sup>12</sup>

<sup>11</sup> The Forward Mark Adjustment Payment is the sum of two components: the Collateral Mark and the Financing Mark. The Collateral Mark is the absolute value of the difference between the trade's contract value and market value. The Financing Mark reflects the financing cost that would be incurred by FICC if it replaced the reverse side of the repo by buying securities and putting them out on repo.

<sup>12</sup> The following new definitions have been proposed to effect this change: Accrued Repo

**C. Technical Changes.** Additionally, FICC proposes changes to its GSD rules relating to repo collateral substitutions and repo transactions generally to make certain technical changes and/or to align the applicable provisions with standard internal or industry practice. These are:

1. Section 3(a) of Rule 18: Delete the requirement that details regarding the rights of substitution match between counterparties. Details regarding rights of substitution are not a required trade reporting item and thus will not be a required match item in GSD's system. References in this respect will be deleted to reflect actual operating practice;

2. Sections 3(e) and 3(f) of Rule 18: Delete the requirement that upon receipt of either the original or the replacement collateral, FICC will promptly redeliver the securities to the appropriate party. As stated in the narrative above, FICC may receive securities that are the subject of a repo collateral substitution request but may not yet have the requisite information for delivery of those securities. These provisions should be deleted to reflect actual operating practice and also to make the rule consistent with the proposed changes;

3. Section 3(h) of Rule 18: Delete the provision regarding implications of repo collateral substitutions on margin and mark-to-market requirements. This provision is redundant because the effects of repo substitutions on such requirements are covered in the rules governing these items and the rules to be modified by the proposed rule change;

4. Section 4 of Rule 18: Make optional a requirement that for general collateral, forward-starting repos, the specific CUSIP and par value be submitted prior to the repo start date. FICC typically does not receive such allocations from its members prior to the repo start date and thus the proposed change will align the rule with industry practice. The proposed change further reflects operating practice as well as industry expectations that a general collateral, forward-starting repo will be removed from the GSD's books if FICC does not receive the specific CUSIP by the time noted in the rule. Members typically submit new transactions with the specific CUSIPs and expect that the general collateral transaction will be removed from the GSD's books.

5. Section 5 of Rule 18: Amend the provision that addresses repo transactions with maturing collateral. The proposed rule change provides that

Interest-to-Date, Repo Interest Rate Differential, and Forward Unallocated Sub Mark.

the repo party in such a repo transaction must make the required substitution of collateral by the time noted in the rule or FICC will remove the transaction from its books. This is because the underlying contract terminates if the collateral is not replaced in time, and therefore, the proposed rule change reflects industry practice. The proposed rule change further reflects industry practice by deleting the requirement that the replacement collateral meet certain specific criteria and replacing that requirement with a requirement that the replacement collateral be "in accordance with the terms of the transaction." This change also reflects industry practice.

FICC believes the proposed rule change is consistent with the requirements of Section 17A of the Act<sup>13</sup> and the rules and regulations thereunder applicable to FICC because it promotes timely processing of participant transactions. As such, FICC believes the proposed rule facilitates the prompt settlement of transactions and assures the safeguarding of securities and funds that are in the custody and control of FICC or for which it is responsible.

*(B) Self-Regulatory Organization's Statement on Burden on Competition*

FICC does not believe that the proposed rule change will have any impact or impose any burden on competition.

*(C) Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

Written comments relating to the proposed rule change have not been solicited or received. FICC will notify the Commission of any written comments received by FICC.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Within thirty-five days of the date of publication of this notice in the **Federal Register** or within such longer period: (i) as the Commission may designate up to ninety days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding; or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve such proposed rule change or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

<sup>13</sup> 15 U.S.C. 78q-1.



#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

##### Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>) or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-FICC-2005-18 on the subject line.

##### Paper Comments

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-9303.

All submissions should refer to File Number SR-FICC-2005-18. 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, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). 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 in the Commission's Public Reference Section, 100 F Street, NE., Washington, DC 20549. Copies of such filings also will be available for inspection and copying at the principal office of FICC and on FICC's Web site at <http://www.ficc.com>. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-FICC-2005-18 and should be submitted on or before January 20, 2005.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.<sup>14</sup>

Nancy M. Morris,

Secretary.

[FR Doc. E5-8299 Filed 1-4-06; 8:45 am]

BILLING CODE 8010-01-P

#### SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-53030; File No. SR-NASD-2005-066]

#### Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving Proposed Rule Change and Amendment No. 1 Thereto Relating to Amendments to NASD Rule 3011 and the Adoption of New Related Interpretive Material

December 28, 2005.

##### I. Introduction

On May 23, 2005, the National Association of Securities Dealers, Inc. ("NASD") filed with the Securities and Exchange Commission ("SEC" or "Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change relating to amendments to NASD Rule 3011 and the adoption of new related interpretive material. The Commission published the proposed rule change for comment in the *Federal Register* on July 6, 2005.<sup>3</sup> The Commission received three comments on the proposal.<sup>4</sup> On December 15, 2005, NASD filed a response to the comment letters,<sup>5</sup> as well as Amendment No. 1 to the proposed rule change.<sup>6</sup> This order

<sup>14</sup> 17 CFR 200.30-3(a)(12).

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> See Securities Exchange Act Release No. 51935 (June 29, 2005), 70 FR 38990 (July 6, 2005) (the "Notice").

<sup>4</sup> See letters from Marianne Czernin, Senior VP, Director, Broker/Dealer Client Services, National Regulatory Services to Jonathan G. Katz, Secretary, SEC, dated June 9, 2005 (the "NRS Letter"), from John J. Lynch, Jr., Executive Vice President, Hartfield, Titus & Donnelly, LLC, to Barbara Z. Sweeney, Senior Vice President and Corporate Secretary, NASD, dated July 20, 2005 (the "HTD Letter") and from Alan E. Sorcher, Vice President and Associate General Counsel, Securities Industry Association ("SIA"), to Jonathan B. Katz, Secretary, SEC, dated July 27, 2005 (the "SIA Letter").

<sup>5</sup> See letter from Brant K. Brown, Counsel, NASD, to Lourdes Gonzalez, Assistant Chief Counsel, Division of Market Regulation, dated December 15, 2005 (the "NASD Response").

<sup>6</sup> Amendment No. 1 clarified the conditions set forth in proposed IM-3011-1(c)(3). See footnote 9 and accompanying text.

approves the proposed rule change, as amended.

##### II. Description of the Proposed Rule Change

Financial institutions, including broker-dealers, must develop and implement anti-money laundering ("AML") programs pursuant to the Bank Secrecy Act,<sup>7</sup> as amended by Section 352 of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001 ("PATRIOT Act").<sup>8</sup> Consistent with Treasury regulation 31 CFR 103.120 under the Bank Secrecy Act, NASD Rule 3011 requires that each member develop and implement a written AML program and specifies the minimum requirements for those programs.

##### Independent Testing

One of the AML program requirements is that firms independently test their AML programs. Testing allows a member to review and assess the adequacy of the firm's AML program and the firm's degree of compliance with its written procedures. Test results alert members to any deficiencies in their AML programs, thereby allowing them to take appropriate corrective action or disciplinary action as the situation may warrant. The independent test report also is an important tool for regulators during their examinations of firms for AML compliance to, among other things, ensure that the firms are following up with corrective action when such tests discover AML program deficiencies.

##### Frequency of Testing

Neither the Bank Secrecy Act nor NASD Rule 3011 currently specifies the frequency of independent testing, and members have asked NASD for guidance on this issue. Given the important role that testing plays in a firm ensuring that its AML program is effective in preventing money laundering activities from occurring at or through the firm and, in order to assure that member AML programs are serving their regulatory purposes, the proposed rule change would require in most instances that firms test their AML programs at least annually (on a calendar-year basis). Certain firms, however, because of their business models and activities may be able to test on a less frequent basis.

<sup>7</sup> Currency and Foreign Transactions Reporting Act of 1970 (commonly referred to as the Bank Secrecy Act), 12 U.S.C. 1829b, 12 U.S.C. 1951-1959, and 31 U.S.C. 5311-5330.

<sup>8</sup> Pub. L. 107-56, 115 Stat. 272 (2001).

Therefore, the proposed rule change would allow members that do not execute transactions for customers or otherwise hold customer accounts or act as an introducing broker with respect to customer accounts to test at least once every two years (on a calendar-year basis), rather than on an annual basis. Examples of these types of firms may include firms that engage solely in proprietary trading or that conduct business only with other broker-dealers. In either case, the proposed rule change establishes a minimum requirement, and members should undertake more frequent testing than required if circumstances warrant.

#### *Establishing Independence*

NASD Rule 3011(c) allows the independent testing of a firm's AML program to be conducted by either member personnel or by a qualified outside party. Some firms may find it more cost effective to use appropriately trained firm personnel. In this regard, members have asked for guidance on how to sufficiently maintain the independence of any internal personnel conducting the test. The proposed rule change would require the person conducting the independent test to have a working knowledge of the applicable Bank Secrecy Act requirements and related implementing regulations. The proposed rule change further clarifies that, to ensure sufficient separation of functions for independence purposes, the testing cannot be conducted by the AML compliance person(s) designated in NASD Rule 3011, by any person who performs the AML functions being tested, or by any person who reports to any of these persons.

Recognizing that these limitations may effectively prevent a small firm from using appropriate internal personnel to conduct the tests, the proposed rule change would allow tests to be conducted by persons who report to either the AML compliance person or persons performing AML functions if (1) the member has no other qualified personnel to conduct the test; (2) the member establishes written policies and procedures to address potential conflicts that can arise from allowing the test to be conducted by a person in the reporting chain (e.g., anti-retaliation procedures); (3) to the extent possible, the results of the test are reported to someone senior to the person to whom the test conductor reports; and (4) the member documents its rationale, which must be reasonable, for determining that it has no other alternative than to

comply in this manner.<sup>9</sup> In addition, if the person does not report the results to a person senior to the AML compliance person or persons performing AML functions, the member must document a reasonable explanation for not doing so.

Consistent with SEC and NASD recordkeeping requirements, the member would need to retain a copy of the documented rationale, which could be reviewed by NASD examiners to assess whether the member's rationale reasonably supports its determination.

NASD engaged in extensive discussions with the New York Stock Exchange, Inc. ("NYSE") to coordinate this proposed rule change regarding independent testing of AML compliance programs. To the extent possible, NASD and the NYSE have tried to develop consistent approaches with variations where necessary to account for the differences in NASD and NYSE membership, namely, differences in firm size, types of businesses conducted, and overall business models.

#### *AML Compliance Person—Review and Update of Contact Information*

Paragraph (d) of NASD Rule 3011 requires that each member designate and identify to NASD the member's AML compliance person(s) and notify NASD of any changes to the compliance person(s)' contact information. NASD requires this information to, among other things, facilitate the efforts of the Financial Crimes Enforcement Network, pursuant to Section 314(a) of the PATRIOT Act and its implementing regulations, in requesting information from financial institutions about persons suspected of engaging in money laundering or terrorist activities.

Given the important role of the AML compliance person in ensuring effective communication for purposes of identifying money-laundering and

terrorist financing activities, NASD believes that members should review and update the AML compliance person information periodically to ensure its accuracy. As such, the proposed rule change would require that each member conduct a review and update, if necessary, of its AML compliance person information within 17 business days after the end of each calendar quarter.<sup>10</sup> Quarterly reviews and updates are consistent with NYSE requirements.<sup>11</sup> The proposed rule change also would clarify that the AML compliance person would be an associated person of the member, but only with respect to the activities performed on behalf of the member.

NASD will announce the effective date of the proposed rule change in a *Notice to Members* to be published no later than 60 days following Commission approval. The effective date will be not more than 30 days following publication of the *Notice to Members* announcing Commission approval.

#### **III. Summary of Comments Received and NASD Response**

The Commission received three comment letters on the proposal and a response to the comment letters by NASD. The HTD Letter expressed support for the proposed changes to NASD Rule 3011(c), which NASD noted in its response.<sup>12</sup>

The SIA Letter expressed concern that NASD and NYSE proposals may set forth different standards as to who is permitted to serve as the designated AML compliance person.<sup>13</sup> NASD noted

<sup>9</sup> This exception is primarily intended to accommodate small firms that, absent the exception, could not use internal personnel to conduct an independent test of the firm's AML program. For example, assume that all the small firm's employees, even those who do not perform any AML functions, report to the firm's AML compliance officer who is also the sole compliance officer of the firm. The member could elect to use qualified internal personnel who do not perform AML functions to conduct the independent test, even though they report to the AML compliance officer, provided all the conditions set forth in proposed IM-3011-1(c)(3) have been met. NASD conducts routine exams of member firms to test the adequacy of AML compliance programs with the objective of determining whether member firms' AML compliance programs are reasonably designed to achieve and monitor compliance with the requirements of the Bank Secrecy Act and applicable Treasury, SEC, and NASD rules. During any such exam, firms that elect to rely on the exception must be able to demonstrate that they have complied with the conditions set forth in proposed IM-3011-1(c)(3).

<sup>10</sup> This proposed schedule is consistent with a member's quarterly FOCUS reporting schedule, as well as with a member's business continuity plan requirement to review and update emergency contact information on a quarterly basis (see NASD Rule 3520(b)). Similarly, the proposed schedule is consistent with the requirement to review and update a member's Executive Representative designation and contact information (see NASD Rule 1150) and to designate a person to receive notifications relating to continuing education, and the need to review and update such designation and contact information (see NASD Rule 1120(a)(7)). When members file their FOCUS reports each quarter, they are reminded of the need to review and update this information on the NASD Contact System.

<sup>11</sup> In Information Memo Number 02-41 (Aug. 30, 2002), the NYSE stated that its members should review and/or update on a quarterly basis (i.e., March, June, September, and December) the information furnished on its Electronic Filing Platform, including information regarding the member's or member organization's AML compliance person.

<sup>12</sup> HTL Letter, *supra* note 4. NASD Response, *supra* note 5. The NASD Response stated "The HTD Letter is limited to support for the proposed rule changes to NASD Rule 3011(c); consequently, this response will not address the HTD Letter."

<sup>13</sup> SIA Letter, *supra* note 4, at 2.

that the "[t]he SIA Letter objected to the proposed rule change on the grounds that by requiring the AML Officer to be an associated person of the member firm, the proposed rule change would not permit larger member firms to designate an individual as the AML Officer unless that individual was an employee of the member itself."<sup>14</sup> NASD clarified, however, that because NASD considers designated AML compliance persons to be associated persons for purposes of their activities on behalf of the member, the permissible structures for establishing AML programs are similar under the NASD proposal and the NYSE proposal.<sup>15</sup> Specifically, the NASD expressed the view that the NASD proposal "would not prohibit a member that is part of a diversified financial institution from designating an AML Officer that is employed by the member's parent company, sister company, or other affiliate; however, if such a person is designated as a member's AML Officer, NASD would consider that person to be an associated person of the member with respect to those activities performed on behalf of the member."<sup>16</sup>

The NRS Letter requested clarification regarding which types of broker-dealers are required to test their AML procedures annually and which are permitted to have their AML programs tested every two years.<sup>17</sup> The NASD Response indicated that in "assessing how often a member must conduct independent tests, members should begin with the premise that they must test annually."<sup>18</sup> NASD also noted that each member "should determine whether its business activities meet the requirements set forth in the rule" for testing every two years.<sup>19</sup> In addition, NASD stated: "If, after assessing its status, a member finds that there is an ambiguity in the application of the express standards for testing its AML program every two years (rather than on an annual or more frequent basis) to specific factual settings, the member may either seek interpretive guidance

from NASD staff or test the program on at least an annual basis."<sup>20</sup>

#### IV. Discussion and Findings

After careful review, the Commission finds that the proposed rule change is consistent with the provisions of Section 15A(b)(6) of the Act,<sup>21</sup> which requires, among other things, that NASD rules must 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 Commission believes that the proposed rule change is designed to accomplish these ends by requiring members to conduct periodic tests of their AML compliance programs, preserve the independence of their testing personnel, and ensure the accuracy of their AML compliance person information.

#### V. Conclusions

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,<sup>22</sup> that the proposed rule change, as amended (SR-NASD-2005-066), be, and it hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.<sup>23</sup>

Nancy M. Morris,  
Secretary.

[FR Doc. E5-8282 Filed 1-4-06; 8:45 am]

BILLING CODE 8010-01-P

### SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-53031; File No. SR-NASD-2005-120]

#### Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving a Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 1 Thereto Relating to the Dissemination of TRACE Trade Information

December 28, 2005.

#### I. Introduction

On October 14, 2005, the National Association of Securities Dealers, Inc. ("NASD"), filed with the Securities and Exchange Commission ("SEC" or "Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4

thereunder,<sup>2</sup> a proposed rule change to amend NASD Rule 6250, which addresses dissemination of transaction information collected by NASD's Trade Reporting and Compliance Engine ("TRACE"). The proposed rule change was published for comment in the *Federal Register* on November 7, 2005.<sup>3</sup> The Commission received one comment letter on the proposal, from The Bond Market Association ("BMA").<sup>4</sup> On December 14, 2005, NASD submitted a response to the BMA Letter<sup>5</sup> and filed an amendment to the proposed rule change ("Amendment No. 1").<sup>6</sup> This order approves the proposed rule change and issues notice of the filing of, and approves on an accelerated basis, Amendment No. 1.

#### II. Description of the Proposed Rule Change

##### Background

On January 23, 2001, the Commission approved NASD rules to establish TRACE, a facility for collecting and disseminating information on corporate bond transactions and to eliminate Nasdaq's Fixed Income Pricing System ("FIPS").<sup>7</sup> The TRACE rules became effective on July 1, 2002. Initially, TRACE disseminated transaction information only on investment-grade securities with an initial issuance size of \$1 billion or greater, and on 50 high-yield issues previously reported in the FIPS system (the "FIPS 50"). On January 31, 2003, the Commission approved an NASD proposal to expand TRACE dissemination to cover roughly 75% of the average daily trading volume of investment-grade securities.<sup>8</sup> On September 3, 2004, the Commission approved an NASD proposal to expand dissemination to include most secondary market transactions in all TRACE-eligible securities (except

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> Securities Exchange Act Release No. 52700 (October 28, 2005), 70 FR 67523 ("Notice").

<sup>4</sup> See letter from Michah S. Green, President and CEO, BMA, to Jonathan G. Katz, Secretary, Commission, dated November 29, 2005 ("BMA Letter").

<sup>5</sup> See letter from Sharon K. Zackula, Associate General Counsel, NASD, to Katherine A. England, Assistant Director, Division of Market Regulation, Commission, dated December 14, 2005 ("NASD Response Letter").

<sup>6</sup> In Amendment No. 1, NASD provided a description of the implementation process for the proposed rule change and requested accelerated approval of the proposal.

<sup>7</sup> See Securities Exchange Act Release No. 43873 (January 23, 2001), 66 FR 8131 (January 29, 2001). FIPS, which was operated by Nasdaq, collected transaction and quotation information on domestic, registered, non-convertible high-yield corporate bonds.

<sup>8</sup> See Securities Exchange Act Release No. 47302 (January 31, 2003), 68 FR 6233 (February 6, 2003).

<sup>14</sup> NASD Response, *supra* note 5, at 4.

<sup>15</sup> NASD Response, *supra* note 5, at 2-3. In footnote 6 of the NASD Response, the NASD clarified that while the Notice states "that '[s]erving as an AML Officer, by itself, would not make a person an associated person of an NASD member,' as further discussed with the SEC staff, NASD believes that the AML Officer would be an associated person of the member, but only with respect to the activities performed on behalf of the member."

<sup>16</sup> NASD Response, *supra* note 5, at 3-4.

<sup>17</sup> NRS Letter, *supra* note 4, at 1-2.

<sup>18</sup> NASD Response, *supra* note 5, at 5.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> 15 U.S.C. 78o-3(b)(6).

<sup>22</sup> 15 U.S.C. 78s(b)(2).

<sup>23</sup> 17 CFR 200.30-3(a)(12).

<sup>1</sup> 15 U.S.C. 78s(b)(1).

transactions effected pursuant to Rule 144A of the Securities Act of 1933 ("Rule 144A transactions").<sup>9</sup> However, that proposal allowed for dissemination delays for securities rated BBB or lower in the new issue aftermarket and for larger transactions in infrequently traded, non-investment-grade bonds in the secondary market other than the new issue aftermarket. According to NASD, data on approximately 99% of all transactions and 95% of par value in TRACE-eligible securities are now disseminated immediately upon receipt by TRACE.

#### Current Proposal

NASD is proposing to amend NASD Rule 6250 to eliminate all remaining delays in the dissemination of information on transactions in TRACE-eligible securities (except Rule 144A transactions). Henceforth, information on all transactions (except Rule 144A transactions) would be disseminated immediately upon receipt of the transaction report. This proposed rule change represents the latest in a series of NASD proposals to gradually enhance transparency for transactions in TRACE-eligible securities.

#### Amendment No. 1

In Amendment No. 1, NASD described the implementation process for the proposed rule change and requested accelerated approval for the amended proposal. Upon effectiveness of the proposal, NASD will look to the date(s) on which transactions are executed and reported to determine the applicable dissemination protocol for TRACE-eligible securities that are still subject to delayed dissemination. For transactions that are *both executed and reported prior* to the effective date of this proposal, the old dissemination protocols will continue to apply, and information on these transactions will not be disseminated until the period of delay has run. Any transaction that is *executed prior* to the effective date but *reported after* the effective date (*i.e.*, reported late on an as/of basis) will be subject to the new protocols and disseminated immediately.

#### III. Summary of Comments and NASD's Response

As noted above, the Commission received one comment letter from the BMA on the proposal, to which NASD has filed a response letter. In its letter, the BMA expressed its belief that the proposed immediate dissemination of

transaction information for illiquid, high-yield corporate debt securities "will further harm liquidity for this segment of the market."<sup>10</sup> Citing anecdotal evidence from "many U.S. dealers, EU fund managers trading U.S. high yield securities, and reported in the press,"<sup>11</sup> the BMA claimed that "TRACE has already hampered the ability of dealers and investors to trade large blocks of less liquid, lower-rated securities, and has led to increased market volatility for these securities."<sup>12</sup> The BMA urged NASD staff to continue to monitor the effect of TRACE on liquidity and, if necessary, to reconsider the immediate dissemination of TRACE information.<sup>13</sup> The BMA also requested that NASD release historical TRACE data to the public so that industry participants can conduct independent analyses and research on the effects of transparency on liquidity.<sup>14</sup>

In its response letter, NASD rejected the BMA's claim that the proposal would harm liquidity in the high-yield segment of the corporate bond market. NASD argued that such claims are not substantiated by research. NASD noted, for example, that the Bond Transaction Reporting Committee ("BTRC")<sup>15</sup> found no evidence that TRACE dissemination has harmed liquidity and voted unanimously to support the current proposal.<sup>16</sup> NASD indicated that it will continue to assess the impact of dissemination on trading and liquidity in TRACE-eligible securities<sup>17</sup> and stated that consideration of a request to provide non-public, historic data held by NASD in its capacity as a regulator is not relevant to consideration of the proposal.<sup>18</sup>

#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning Amendment No. 1, including whether Amendment No. 1 is consistent with the Act. Comments may be submitted by any of the following methods:

<sup>10</sup> BMA Letter at 2.

<sup>11</sup> *Id.* at 2-3.

<sup>12</sup> *Id.* at 3.

<sup>13</sup> *See id.* at 3.

<sup>14</sup> *See id.* at 3-4.

<sup>15</sup> The BTRC is the advisory committee that was formed to advise NASD on liquidity issues and on how dissemination of TRACE information should be increased over time. The BTRC has ten members, five of whom were recommended by the staff of NASD and the other five of whom were recommended by the BMA.

<sup>16</sup> *See* NASD Response Letter at 2.

<sup>17</sup> *See id.*

<sup>18</sup> *See id.* at 3.

#### Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NASD-2005-120 on the subject line.

#### Paper Comments

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-9303.

All submissions should refer to File Number SR-NASD-2005-120. 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, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). 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 in the Commission's Public Reference Room. Copies of such filing also will be available for inspection and copying at the principal office of NASD. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NASD-2005-120 and should be submitted on or before January 26, 2006.

#### V. Discussion

After careful consideration, the Commission finds that the proposed rule change, as amended, is consistent with the Act and the rules and regulations thereunder applicable to a national securities association.<sup>19</sup> Specifically, the Commission believes that the proposal is consistent with Section 15A(b)(6) of the Act<sup>20</sup> in that it is designed to prevent fraudulent and

<sup>19</sup> If approving this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

<sup>20</sup> 15 U.S.C. 78o-3(b)(6).

<sup>9</sup> *See* Securities Exchange Act Release No. 50317 (September 3, 2004), 69 FR 55202 (September 13, 2004) ("September 2004 Order").



manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest.

In the September 2004 Order, the Commission approved a TRACE rule to expand transaction dissemination to include secondary market transactions in all TRACE-eligible securities (except Rule 144A transactions), with information on transactions on certain securities disseminated on a delayed basis. In that order, the Commission expressed concern that the remaining dissemination delays could unnecessarily restrict the availability of useful transaction information to investors. The Commission noted that the two studies commissioned by NASD to address the relationship between transparency and liquidity found no conclusive evidence that TRACE dissemination has had an adverse effect on liquidity. Therefore, the Commission stated that it expected NASD to submit a proposed rule change to eliminate the remaining delays in disseminating TRACE information no later than November 1, 2005.<sup>21</sup> NASD has done so.

The Commission believes that this proposal, by eliminating all remaining delays in the dissemination of transaction information on TRACE-eligible securities (except Rule 144A transactions), should provide investors with more up-to-date, and hence more reliable, transaction information for these securities and enhance overall transparency in the corporate bond market. Enhanced transparency for these remaining TRACE-eligible securities should increase the fairness and efficiency of the debt markets, thereby promoting the protection of investors and the public interest. In regard to the BMA's comment that increased transparency has harmed liquidity in high-yield debt securities, the Commission notes that the BTRC has reviewed TRACE statistical data, econometric analyses, and other information and has found no conclusive evidence that the recently increased levels of transparency in these securities have adversely affected corporate bond market liquidity. Furthermore, the BTRC has recommended to NASD that information on all transactions in TRACE-eligible securities (except Rule 144A transactions) be disseminated immediately upon NASD's receipt of the transaction report. The Commission has not been presented with any objective evidence to support the BMA's assertion that immediate dissemination of

transaction information harms liquidity for high-yield debt securities.

The Commission finds good cause for approving Amendment No. 1 to the proposed rule change prior to the thirtieth day after the date of publication of notice of filing thereof in the **Federal Register** pursuant to Section 19(b)(2) of the Act.<sup>22</sup> Amendment No. 1 does not make any substantive changes to the proposal but rather offers technical guidance about how transaction data in the affected TRACE-eligible securities will be disseminated in the few days immediately after the rule change becomes effective. Accordingly, the Commission believes that the accelerated approval of Amendment No. 1 is appropriate.

#### VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,<sup>23</sup> that the proposed rule change (SR-NASD-2005-120) is approved and that Amendment No. 1 thereto is hereby approved on an accelerated basis.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.<sup>24</sup>

Nancy M. Morris,  
Secretary.

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BILLING CODE 8010-01-P

### SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-53034; File No. SR-PCX-2005-139]

#### Self-Regulatory Organizations; Pacific Exchange, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change and Amendment No. 1 Thereto Relating to the Certificate of Incorporation of PCX Holdings, Inc.

December 28, 2005.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on December 19, 2005, the Pacific Exchange, Inc. ("PCX" 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 PCX. On December 23, 2005, PCX filed Amendment No. 1 to the proposed

rule change.<sup>3</sup> PCX filed the proposed rule change pursuant to Section 19(b)(3)(A) of the Act,<sup>4</sup> and Rule 19b-4(f)(6) thereunder,<sup>5</sup> which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change, as amended, from interested persons.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

PCX proposes to submit to the Commission a proposed rule change to extend temporary exceptions from the voting and ownership limitations in the certificate of incorporation of PCX Holdings, Inc. ("PCXH"), a Delaware corporation and a parent company of PCX, approved by the Commission in an order issued on September 22, 2005 (the "SEC Order")<sup>6</sup>, so as to allow (a) Archipelago Holdings, Inc. ("Archipelago"), a Delaware corporation and the ultimate parent company of PCXH and PCX, to continue to (i) own Wave Securities, L.L.C. ("Wave") until January 31, 2006 and (ii) own and operate the ATS Inbound Router Function (as defined below) of Archipelago Trading Services, Inc. ("ATS") and the Inbound Router Clearing Function (as defined below) of Archipelago Securities, L.L.C. ("Archipelago Securities") until January 31, 2006, and (b) Gerald D. Putnam, Chairman and Chief Executive Officer of Archipelago ("Mr. Putnam"), to own in excess of 5% of Terra Nova Trading, L.L.C. ("TNT") and continue to serve as a director of TAL Financial Services ("TAL") until January 31, 2006, in each case, subject to the conditions set forth in this filing.

#### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, PCX 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 IV below. PCX has prepared summaries, set forth in Sections A, B,

<sup>3</sup> In Amendment No. 1, the Exchange modified the duration of certain extensions that the Exchange proposed in the original filing and made certain technical amendments to the original filing.

<sup>4</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>5</sup> 17 CFR 240.19b-4(f)(6).

<sup>6</sup> See Securities Exchange Act Release No. 52497 (September 22, 2005), 70 FR 56949 (September 29, 2005) (the "SEC Order").

<sup>22</sup> 15 U.S.C. 78s(b)(2).

<sup>23</sup> *Id.*

<sup>24</sup> 17 CFR 200.30-3(a)(12).

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>21</sup> See 69 FR at 55204.



and C below, of the most significant aspects of such statements.

*A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change*

1. Purpose

a. PCXH Acquisition and the Amendment of the PCXH Certificate of Incorporation

Archipelago operates the Archipelago Exchange ("ArcaEx"), an open, all-electronic stock market for the trading of equity securities. On September 26, 2005, Archipelago completed its acquisition of PCXH and all of its wholly-owned subsidiaries, including PCX and PCXE (the "PCXH Acquisition"). The PCXH Acquisition was accomplished by way of a merger of PCXH with a wholly-owned subsidiary of Archipelago, with PCXH being the surviving corporation in the merger and becoming a wholly-owned subsidiary of Archipelago.

The certificate of incorporation of PCXH (as amended to date, the "PCXH Certificate of Incorporation") contains various ownership and voting restrictions on PCXH's capital stock, which are designed to safeguard the independence of the self-regulatory functions of PCX and to protect the Commission's oversight responsibilities. In order to allow Archipelago to own 100% of the capital stock of PCXH, prior to the completion of the PCXH Acquisition, PCX filed with the Commission a proposed rule change which sought to, among other things, amend the PCXH Certificate of Incorporation to create an exception from the voting and ownership restrictions for Archipelago and certain of its related persons (the "Original Rule Filing").<sup>7</sup> The Original Rule Filing, as amended by Amendment No. 1 and Amendment No. 2 thereto, was approved by the Commission on September 22, 2005<sup>8</sup> and the amended PCXH Certificate of Incorporation became effective on September 26, 2005, upon the closing of the PCXH Acquisition.

Article Nine of the PCXH Certificate of Incorporation provides that no Person,<sup>9</sup> either alone or together with its

Related Persons,<sup>10</sup> may own, directly or indirectly, shares constituting more than 40% of the outstanding shares of any class of PCXH capital stock,<sup>11</sup> and that no Person, either alone or together with its Related Persons who is a trading permit holder of PCX or an equities trading permit holder of PCXE, may own, directly or indirectly, shares constituting more than 20% of any class of PCXH capital stock.<sup>12</sup> Furthermore, the PCXH Certificate of Incorporation provides that, for so long as PCXH controls, directly or indirectly, PCX, no Person, either alone or with its Related Persons, may directly or indirectly vote or cause the voting of shares of PCXH capital stock or give any proxy or consent with respect to shares representing more than 20% of the voting power of the issued and outstanding PCXH capital stock.<sup>13</sup> The PCXH Certificate of Incorporation also places limitations on the right of any Person, either alone or with its Related Persons, to enter into any agreement with respect to the withholding of any vote or proxy.<sup>14</sup>

PCX proposed and the Commission approved an exception from the ownership and voting limitations described above to add a new paragraph at the end of Article Nine of the PCXH

subdivision thereof, PCXH Certificate of Incorporation, Article Nine, Section 1(b)(iv).

<sup>10</sup>The term "Related Person," as defined in the PCXH Certificate of Incorporation, means (i) with respect to any person, all "affiliates" and "associates" of such person (as such terms are defined in Rule 12b-2 under the Act); (ii) with respect to any person constituting a trading permit holder of PCX or an equities trading permit holder of PCXE, any broker dealer with which such holder is associated; and (iii) any two or more persons that have any agreement, arrangement or understanding (whether or not in writing) to act together for the purpose of acquiring, voting, holding or disposing of shares of the capital stock of PCXH. PCXH Certificate of Incorporation, Article Nine, Section 1(b)(iv).

<sup>11</sup>PCXH Certificate of Incorporation, Article Nine, Section 1(b)(i). However, such restriction may be waived by the Board of Directors of PCXH pursuant to an amendment to the Bylaws of PCXH adopted by the Board of Directors, if, in connection with the adoption of such amendment, the Board of Directors adopts a resolution stating that it is the determination of such Board that such amendment will not impair the ability of PCX to carry out its functions and responsibilities as an "exchange" under the Act and is otherwise in the best interests of PCXH and its stockholders and PCX, and will not impair the ability of the Commission to enforce said Act, and such amendment shall not be effective until approved by said Commission; provided that the Board of Directors of PCXH shall have determined that such Person and its Related Persons are not subject to any applicable "statutory disqualification" (within the meaning of Section 3(a)(39) of the Act). PCXH Certificate of Incorporation, Article Nine, Sections 1(b)(i)(B) and 1(b)(i)(C).

<sup>12</sup>*Id.*, Article Nine, Section 1(b)(ii).

<sup>13</sup>*Id.*, Article Nine, Section 1(c).

<sup>14</sup>*Id.*

Certificate of Incorporation, which provides that for so long as Archipelago directly owns all of the outstanding capital stock of PCXH, these ownership and voting limitations shall not be applicable to the ownership and voting of shares of PCXH by (i) Archipelago, (ii) any Person which is a Related Person of Archipelago, either alone or together with its Related Persons, and (iii) any other Person to which Archipelago is a Related Person, either alone or together with its Related Persons.<sup>15</sup> These exceptions to the ownership and voting limitations, however, shall not apply to any "Prohibited Persons,"<sup>16</sup> which is defined to mean any Person that is, or that has a Related Person that is (i) an OTP Holder or an OTP Firm (as defined in the rules of PCX)<sup>17</sup> or (ii) an ETP Holder (as defined in the rules of PCXE),<sup>18</sup> unless such Person is also a "Permitted Person" under the PCXH Certificate of Incorporation.<sup>19</sup> The PCXH Certificate of Incorporation further provides that any Prohibited Person not covered by the definition of a Permitted Person who is subject to and exceeds the voting and ownership limitations imposed by Article Nine as of the date of the closing of the PCXH Acquisition shall be permitted to exceed the voting and ownership limitations

<sup>15</sup>PCXH Certificate of Incorporation, Article Nine, Section 4.

<sup>16</sup>*Id.*

<sup>17</sup>PCX rules define an "OTP Holder" to mean any natural person, in good standing, who has been issued an Options Trading Permit ("OTP") by the Exchange for effecting approved securities transactions on the Exchange's trading facilities, or has been named as a Nominee. PCX Rule 1.1(j). The term "Nominee" means an individual who is authorized by an "OTP Firm" (a sole proprietorship, partnership, corporation, limited liability company or other organization in good standing who holds an OTP or upon whom an individual OTP Holder has conferred trading privileges on the Exchange's trading facilities) to conduct business on the Exchange's trading facilities and to represent such OTP Firm in all matters relating to the Exchange. PCX Rule 1.1(n).

<sup>18</sup>PCXE rules define an "ETP Holder" to mean any sole proprietorship, partnership, corporation, limited liability company or other organization in good standing that has been issued an Equity Trading Permit, a permit issued by the PCXE for effecting approved securities transactions on the trading facilities of PCXE. PCXE Rule 1.1(n).

<sup>19</sup>"Permitted Person" is defined to mean (A) any broker or dealer approved by the Commission after June 20, 2005 to be a facility (as defined in Section 3(a)(2) of the Act) of PCX; (B) any Person that has been approved by the Commission prior to it becoming subject to the provisions of Article Nine of the PCXH Certificate of Incorporation with respect to the voting and ownership of shares of PCXH capital stock by such Person; and (C) any Person that is a Related Person of Archipelago solely by reason of beneficially owning, either alone or together with its Related Persons, less than 20% of the outstanding shares of Archipelago capital stock. PCXH Certificate of Incorporation, Article Nine, Section 4.

<sup>7</sup> See Pacific Exchange, Inc., Proposed Rule Change Relating to the Certificate of Incorporation of PCX Holdings, Inc., PCX Rules, and Bylaws of Archipelago Holdings, Inc., File No. SR-PCX-2005-90 (August 1, 2005).

<sup>8</sup> See SEC Order.

<sup>9</sup>"Person" is defined to mean an individual, partnership (general or limited), joint stock company, corporation, limited liability company, trust or unincorporated organization, or any governmental entity or agency or political

imposed by Article Nine only to the extent and for the time period approved by the Commission.<sup>20</sup>

b. Wave

Wave is an introducing broker for Archipelago's institutional customers and provides such customers with access to ArcaEx and other market centers. Because Wave, a broker-dealer and an ETP Holder of PCXE, is a wholly-owned subsidiary and, consequently, a Related Person, of Archipelago, it falls within the definition of "Prohibited Persons" under the PCXH Certificate of Incorporation. Consequently, absent an exception, Archipelago's ownership of PCXH would cause Wave, as an ETP Holder, to exceed the voting and ownership limitations imposed by Article Nine of the PCXH Certificate of Incorporation. Therefore, in connection with the PCXH Acquisition, PCX requested a temporary exception from the ownership and voting limitations in the PCX Certificate of Incorporation for Archipelago's ownership of Wave until December 31, 2005, subject to the condition that during that interim period Archipelago would continue to maintain and comply with its current information barriers between Wave, on the one hand, and PCX, PCXE and other subsidiaries of Archipelago that are facilities of PCX or PCXE, on the other hand.<sup>21</sup>

The Commission approved PCX's rule proposal regarding Wave (the "Original Wave Exception").<sup>22</sup> In the SEC Order, the Commission stated that the affiliation of an exchange with one of its members that provides inbound access to the exchange—in direct competition with other members of the exchange—raises potential conflicts of interest between the exchange's regulatory responsibilities and its commercial interests, and the potential for unfair competitive advantage that the affiliated member could have by virtue of informational or operational advantages, or the ability to receive preferential treatment.<sup>23</sup> However, noting that the conditions to be imposed during the interim period were designed to mitigate potential conflicts of interest and the potential for unfair competitive advantage, the Commission concluded that it would be appropriate and consistent with the Act to allow a limited, temporary exception for Archipelago to continue its ownership

of Wave.<sup>24</sup> In granting the approval for the Original Wave Exception, the Commission also noted that in addition to being a member of PCX, Wave is a member of the National Association of Securities Dealers, Inc. ("NASD"), a self-regulatory organization ("SRO") not affiliated with Archipelago, and the NASD has been designated by the Commission as the "Designated Examining Authority" for Wave pursuant to Rule 17d-1 of the Act.<sup>25</sup> Furthermore, during the interim period, Wave would continue to be covered by the scope of an agreement between NASD and PCX, which was entered into pursuant to Rule 17d-2 under the Act<sup>26</sup> (the "17d-2 Agreement") and provides for a plan concerning the regulatory responsibilities of NASD with respect to certain members of PCX, including Wave.<sup>27</sup>

c. ATS Inbound Router Function and the Inbound Router Clearing Function

Archipelago currently owns ATS, a wholly-owned subsidiary that is a broker-dealer and an ETP Holder of PCXE. The business of ATS consists of, among other things, acting as an introducing broker for non-ETP Holder broker or dealer clients for securities traded on ArcaEx (the "ATS Inbound Router Function"). Archipelago Securities, a wholly-owned subsidiary of Archipelago, is a registered broker-dealer, a member of the NASD and an ETP Holder. In addition to its other functions, Archipelago Securities provides clearing functions for trades executed by the ATS Inbound Router Function (the "Inbound Router Clearing Function").

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* Pursuant to Rule 17d-1 under the Act, where a member of the Securities Investor Protection Corporation is a member of more than one SRO, the Commission shall designate to one of such organizations the responsibility of examining such member for compliance with the applicable financial responsibility rules. In making such designation, the Commission shall take into consideration the regulatory capabilities and procedures of the SROs, availability of staff, convenience of location, unnecessary regulatory duplication, and such other factors as the Commission may consider germane to the protection of investors, the cooperation and coordination among SROs, and the development of a national market system for the clearance and settlement of securities transactions. 17 CFR 240.17d-1.

<sup>26</sup> Rule 17d-2 provides that any two or more SROs may file with the Commission a plan for allocating among such SROs the responsibilities to receive regulatory reports from persons who are members or participants of more than one of such SROs to examine such persons for compliance, or to enforce compliance by such persons, with specified provisions of the Act, the rules and regulations thereunder, and the rules of such SROs, or to carry out other specified regulatory functions with respect to such persons. 17 CFR 240.17d-2.

<sup>27</sup> See SEC Order, at 56959.

Because ATS, a broker-dealer and an ETP Holder of PCXE, is a wholly-owned subsidiary and, consequently, a Related Person, of Archipelago, it falls within the definition of "Prohibited Persons" under the PCXH Certificate of Incorporation. Consequently, absent an exception, Archipelago's ownership of PCXH would cause ATS to exceed the voting and ownership limitations imposed by Article Nine of the PCXH Certificate of Incorporation. Likewise, because Archipelago Securities, a broker-dealer and an ETP Holder of PCXE, is a wholly-owned subsidiary and, consequently, a Related Person, of Archipelago, and the approvals of Archipelago Securities set forth elsewhere in the SEC Order were limited in scope and did not include its Inbound Router Clearing Function, it falls within the definition of "Prohibited Persons" under the PCXH Certificate of Incorporation. Consequently, absent an exception, Archipelago's ownership of PCXH would cause Archipelago Securities to exceed the voting and ownership limitations imposed by Article Nine of the PCXH Certificate of Incorporation.

Therefore, in connection with the PCXH Acquisition, PCX requested a temporary exception from the ownership and voting limitations in the PCX Certificate of Incorporation for Archipelago's ownership and operation of the ATS Inbound Router Function and the Inbound Router Clearing Function until the earlier of (i) the closing date of the merger of Archipelago and the NYSE and (ii) March 31, 2006, subject to the following conditions: (1) The revenues derived by Archipelago from the ATS Inbound Router Function will not exceed 7% of the consolidated revenues of Archipelago (determined on a quarterly basis), (2) the ATS Inbound Router Function will not accept any new clients following the closing of Archipelago's acquisition of PCXH; and (3) Archipelago will continue to maintain and comply with its current information barrier between the ATS Inbound Router Function on the one hand and PCX, PCXE and the other subsidiaries of Archipelago that are facilities of PCX or PCXE on the other hand.<sup>28</sup> The Commission approved PCX's rule proposal regarding the ATS Inbound Router Function and the Inbound Router Clearing Function (the "Original Inbound Router Exception").<sup>29</sup> In the SEC Order, the Commission stated that the affiliation of an exchange with one of its members

<sup>28</sup> See Amendment No. 2, at 5-6.

<sup>29</sup> See SEC Order, at 56960.

<sup>20</sup> *Id.*

<sup>21</sup> See Original Rule Filing, at 36-37 and Amendment No. 2 to the Original Rule Filing, at 4 (September 16, 2005) ("Amendment No. 2").

<sup>22</sup> See SEC Order, at 56960.

<sup>23</sup> *Id.* at 56959.

that provides inbound access to the exchange—in direct competition with other members of the exchange—raises potential conflicts of interest between the exchange's regulatory responsibilities and its commercial interests, and the potential for unfair competitive advantage that the affiliated member could have by virtue of informational or operational advantages, or the ability to receive preferential treatment.<sup>30</sup> However, noting that the conditions to be imposed during the interim period were designed to mitigate potential conflicts of interest and the potential for unfair competitive advantage, the Commission concluded that it would be appropriate and consistent with the Act to allow a limited, temporary exception for Archipelago to continue its ownership of the ATS Inbound Router Function and the Inbound Router Clearing Function.<sup>31</sup> In granting the approval for the Original Inbound Router Exception, the Commission also noted that in addition to being a member of PCX, ATS is a member of the NASD and the NASD has been designated by the Commission as the "Designated Examining Authority" for ATS pursuant to Rule 17d-1 of the Act.<sup>32</sup> Furthermore, during the interim period, ATS would continue to be covered by the scope of the 17d-2 Agreement,<sup>33</sup> which provides for a plan concerning the regulatory responsibilities of NASD with respect to certain members of PCX, including ATS.<sup>34</sup>

#### d. TNT

TNT is a wholly-owned subsidiary of TAL. Mr. Putnam owns in excess of 5% of TNT and serves as a director of TAL. Because TNT, a broker-dealer and an ETP Holder of PCXE, is a Related Person of Archipelago by virtue of Mr. Putnam's ownership of in excess of 5% of TNT and service as a director of TAL, it falls within the definition of "Prohibited Persons" under the PCXH Certificate of Incorporation. Consequently, absent an exception, Archipelago's ownership of PCXH would cause TNT to exceed the voting and ownership limitations imposed by Article Nine of the PCXH Certificate of Incorporation. Therefore, in connection with the PCXH Acquisition, the Commission approved the Exchange's request for a temporary exception for Mr. Putnam to continue to own in

excess of 5% of TNT and continue to serve as a director of TAL until December 31, 2005 (the "Original TNT Exception").<sup>35</sup> In the SEC Order, the Commission stated that it believes that such a temporary exception is appropriate and consistent with the Act because it will eliminate the affiliation between TNT and Archipelago but allow Mr. Putnam a reasonable amount of time to effectuate such actions necessary to eliminate the affiliation.<sup>36</sup>

#### e. Extension of the Temporary Exceptions

##### i. Wave

In accordance with the terms of the Original Wave Exception, Archipelago has been working to sell its ownership interest in Wave by December 31, 2005. Archipelago expects to enter into a definitive agreement for the sale of Wave to a third party prior to December 31, 2005. The definitive agreement will condition the sale of Wave upon the satisfaction of certain customary conditions to closing specified in the agreement, and Archipelago would intend to complete the sale as soon as possible following the satisfaction of such conditions. The Original Wave Exception expires on December 31, 2005. In light of the fact that the sale would not be consummated by December 31, 2005, the Exchange hereby proposes to extend the Original Wave Exception to January 31, 2006, subject to the same conditions as applied to the Original Wave Exception described above. Archipelago and the Exchange believe that this extension would be in keeping with the policy justifications for the Original Wave Exception outlined above, while allowing Archipelago to complete the sale of Wave.

##### ii. ATS Inbound Router Function and the Inbound Router Clearing Function

In accordance with the terms of the Original Inbound Router Exception, Archipelago has been working to sell its ownership interest in the ATS Inbound Router Function. Archipelago expects to enter into a definitive agreement for the sale of the ATS Inbound Router Function to a third party prior to December 31, 2005. The definitive agreement will condition the sale of the ATS Inbound Router Function upon the satisfaction of certain customary conditions to closing specified in the agreement, and Archipelago would intend to complete the sale as soon as possible following the satisfaction of such conditions. The Original Inbound

Router Exception expires on the earlier of (i) the closing date of the merger of Archipelago and the NYSE and (ii) March 31, 2006. Given the uncertainty regarding the potential closing date of the merger of Archipelago and the NYSE, the Exchange hereby proposes to extend the expiration date of the Original Inbound Router Exception to January 31, 2006 subject to the same conditions as applied to the Original Inbound Router Exception described above.<sup>37</sup> Archipelago and the Exchange believe that this extension would be in keeping with the policy justifications for the Original Inbound Router Exception outlined above, while allowing Archipelago to complete the sale of the ATS Inbound Router Function.

##### iii. TNT

In accordance with the terms of the Original TNT Exception, Mr. Putnam has been working to eliminate the affiliation. Mr. Putnam expects to enter into a definitive agreement to reduce his ownership in TNT by January 31, 2006. The definitive agreement will condition the transaction upon the satisfaction of certain customary conditions to closing specified in the agreement, and Mr. Putnam would intend to complete the transaction as soon as possible following the satisfaction of such conditions; once the transaction is completed, Mr. Putnam would also cease serving as a director of TAL. The Original TNT Exception expires on December 31, 2005. In light of the fact that the transactions would not be consummated by December 31, 2005, the Exchange hereby proposes to extend the Original TNT Exception until January 31, 2006, subject to the same conditions as applied to the Original TNT Exception described above.<sup>38</sup> In proposing such extension, Archipelago and the Exchange note that the NASD is the "Designated Examining Authority" for TNT pursuant to Rule 17d-1 of the Act. Furthermore, during the interim period, TNT would continue to be covered by the scope of the 17d-2 Agreement, which provides for a plan concerning the regulatory responsibilities of NASD with respect to certain members of PCX, including TNT. Archipelago and the Exchange believe that this extension would be in

<sup>37</sup> The Exchange clarified that it proposes to extend the Original Inbound Router Exception to January 31, 2006. Telephone conversation between Janet Angstadt, Deputy General Counsel and Assistant Corporate Secretary, PCX and Heather Seidel, Senior Special Counsel, Division of Market Regulation, Commission, on December 28, 2005 ("Telephone Conversation").

<sup>38</sup> The Exchange acknowledges that the Original TNT Exception was not subject to any conditions. Telephone Conversation.

<sup>30</sup> *Id.* at 56959.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* See *supra* note 25 for a description of Rule 17d-1 under the Act.

<sup>33</sup> See *supra* note 26.

<sup>34</sup> See SEC Order, at 56959.

<sup>35</sup> See SEC Order, at 56960-61.

<sup>36</sup> See SEC Order, at 56960.

keeping with the policy justifications for the Original TNT Exception outlined above, while allowing Mr. Putnam a reasonable amount of time to effectuate the actions necessary to eliminate the affiliation between TNT and Archipelago.

## 2. Statutory Basis

The Exchange believes that the proposed rule change in this filing, as amended, is consistent with Section 6(b) of the Act,<sup>39</sup> in general, and furthers the objectives of Section 6(b)(1),<sup>40</sup> in particular, in that it enables the Exchange to be so organized so as to have the capacity to be able to carry out the purposes of the Act and to comply, and (subject to any rule or order of the Commission pursuant to Section 17(d) or 19(g)(2) of the Act) to enforce compliance by its exchange members and persons associated with its exchange members, with the provisions of the Act, the rules and regulations thereunder, and the rules of the Exchange. The Exchange also believes that this filing, as amended, furthers the objectives of Section 6(b)(5),<sup>41</sup> in particular, because the rules summarized herein would create a governance and regulatory structure with respect to the operation of the business of PCX that is designed to help prevent fraudulent and manipulative acts and practices; to promote just and equitable principals of trade; to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities; and to remove impediments to and 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 does not believe that the proposed rule change, as amended, will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

### C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments on the proposed rule change were neither solicited nor received.

### III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change, as amended, does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act<sup>42</sup> and Rule 19b-4(f)(6) thereunder.<sup>43</sup>

At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.<sup>44</sup>

PCX has asked the Commission to waive the 30-day operative delay. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. Because the Original Wave Exception and the Original TNT Exception each expire on December 31, 2005, and the Original Inbound Router Exception expires on the earlier of (i) the closing date of the merger of Archipelago and the NYSE (which date is uncertain) and (ii) March 31, 2006, such waiver will allow each of Wave, ATS (with respect to the ATS Inbound Router Function), Archipelago Securities (with respect to the Inbound Router Clearing Function), and TNT to remain in compliance with the voting and ownership limitations in the PCXH Certificate of Incorporation. The Commission notes that the Exchange has represented that Archipelago expects to enter into a definitive agreement for the sale of Wave and for the sale of the ATS Inbound Router

Function by December 31, 2005, and that Mr. Putnam expects to enter into a definitive agreement to reduce his ownership in TNT by January 31, 2006. Therefore, the time period for each of the extensions is short and will terminate on January 31, 2006. In addition, the Commission notes that the following protections are and will continue to be in place during the interim period: (i) Wave, ATS, and TNT are members of the NASD as well as PCX, (ii) the NASD is the Designated Examining Authority for Wave, ATS, and TNT pursuant to Rule 17d-1 of the Act, and (iii) Wave, ATS, and TNT are, and will continue to be during the extension, covered by the scope of the 17d-2 Agreement. Further, Archipelago's ownership and operation of Wave, the ATS Inbound Router Function of ATS, and the Inbound Router Clearing Function of Archipelago Securities will continue to be subject to the same conditions as the Original Wave Exception and the Original Inbound Router Exception, as described above and as approved by the Commission in the SEC Order.

For these reasons, the Commission designates the proposal to be effective and operative upon filing with the Commission.<sup>45</sup>

### IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change, as amended, is consistent with the Act. Comments may be submitted by any of the following methods:

#### Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-PCX-2005-139 on the subject line.

#### Paper Comments

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, Station Place, 100 F Street, NE., Washington, DC 20549-9303. All submissions should refer to File Number SR-PCX-2005-139. 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, please use only one method. The Commission will

<sup>45</sup> For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

<sup>42</sup> 15 U.S.C. 78s(b)(3)(A).

<sup>43</sup> 17 CFR 240.19b-4(f)(6). Pursuant to Rule 19b-4(f)(6)(iii) under the Act, the Exchange is required to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Commission has determined to waive this requirement.

<sup>44</sup> The effective date of the original proposed rule change is December 19, 2005, and the effective date of the amendment is December 23, 2005. For purposes of calculating the 30-day operative delay and the 60-day period within which the Commission may summarily abrogate the proposed rule change, as amended, under Section 19(b)(3)(C) of the Act, the Commission considers the period to commence on December 23, 2005, the date on which the Exchange submitted Amendment No. 1. See 15 U.S.C. 78s(b)(3)(C).

<sup>39</sup> 15 U.S.C. 78f(b).

<sup>40</sup> 15 U.S.C. 78f(b)(1).

<sup>41</sup> 15 U.S.C. 78f(b)(5).



post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). 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 in the Commission's Public Reference Room. Copies of such filing also will be available for inspection and copying at the principal office of the PCX. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-PCX-2005-139 and should be submitted on or before January 26, 2006.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.<sup>46</sup>

Nancy M. Morris,  
Secretary.

[FR Doc. E5-8298 Filed 1-4-06; 8:45 am]  
BILLING CODE 8010-01-P

## DEPARTMENT OF STATE

[Public Notice 5268]

### Culturally Significant Objects Imported for Exhibition Determinations: "The Dead Sea Scrolls"

**SUMMARY:** Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.*; 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236 of October 19, 1999, as amended, and Delegation of Authority No. 257 of April 15, 2003 [68 FR 19875], I hereby determine that the objects to be included in the exhibition "The Dead Sea Scrolls", imported from abroad for temporary exhibition within the United States, are of cultural significance. The objects are imported pursuant to loan agreements with the foreign owners or custodians. I also

determine that the exhibition or display of the exhibit objects at Discovery Place, Charlotte, NC, from on or about February 17, 2006, until on or about May 29, 2006, at Pacific Science Center, Seattle, WA, from on or about September 20, 2006, until on or about January 7, 2007, and at possible additional venues yet to be determined, is in the national interest. Public Notice of these Determinations is ordered to be published in the Federal Register.

**FOR FURTHER INFORMATION CONTACT:** For further information, including a list of the exhibit objects, contact Richard Lahne, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: 202/453-8058. The address is U.S. Department of State, SA-44, 301 4th Street, SW, Room 700, Washington, DC 20547-0001.

Dated: December 28, 2005.  
C. Miller Crouch,  
Principal Deputy Assistant Secretary for Educational and Cultural Affairs, Department of State.

[FR Doc. E5-8308 Filed 1-4-06; 8:45 am]  
BILLING CODE 4710-05-P

## DEPARTMENT OF STATE

[Public Notice 5251]

### Advisory Commission on Public Diplomacy; Notice of Meeting

The U.S. Advisory Commission on Public Diplomacy will hold a meeting at the U.S. Department of State at 2201 C Street, NW., Washington, DC on January 18, 2006 in Room 1408 from 10 a.m. to 11 a.m. The Commissioners will discuss progress made in evaluating public diplomacy programs with senior officials of the department.

The Commission was reauthorized pursuant to Public Law 109-108 (H.R.2862, Science, State, Justice, Commerce, and Related agencies Appropriations Act, 2006). The U.S. Advisory Commission on Public Diplomacy is a bipartisan Presidentially appointed panel created by Congress in 1948 to provide oversight of U.S. Government activities intended to understand, inform and influence foreign publics. The Commission reports its findings and recommendations to the President, the Congress and the Secretary of State and the American people. Current Commission members include Barbara M. Barrett of Arizona, who is the Chairman; Harold Pachios of Maine; Ambassador Penne Percy Korth of Washington, DC; Ambassador Elizabeth Bagley of Washington, DC; Charles

"Tre" Evers of Florida; Jay T. Snyder of New York; and Maria Sophia Aguirre of Washington, DC.

For more information, please contact Athena Katsoulos at (202) 203-7880.

Dated: December 16, 2005.  
Athena Katsoulos,  
Executive Director, ACPD, Department of State.

[FR Doc. E5-8307 Filed 1-4-06; 8:45 am]  
BILLING CODE 4710-11-P

## DEPARTMENT OF TRANSPORTATION

### Office of the Secretary

[Docket Nos. OST-2005-20924 and OST-2005-20925]

### Applications of Cargo 360, Inc. for Certificate Authority

**AGENCY:** Department of Transportation.

**ACTION:** Notice of Order to Show Cause (Order 2005-12-19).

**SUMMARY:** The Department of Transportation is directing all interested persons to show cause why it should not issue orders finding Cargo 360, Inc., fit, willing, and able, and awarding it certificates of public convenience and necessity to engage in interstate and foreign scheduled air transportation of property and mail.

**DATES:** Persons wishing to file objections should do so no later than January 12, 2006.

**ADDRESSES:** Objections and answers to objections should be filed in Dockets OST-2005-20924 and OST-2005-20925 and addressed to U.S. Department of Transportation, Docket Operations, (M-30, Room PL-401), 400 Seventh Street, SW., Washington, DC 20590, and should be served upon the parties listed in Attachment A to the order.

**FOR FURTHER INFORMATION CONTACT:** Ms. Lauralyn J. Remo, Air Carrier Fitness Division (X-56, Room 6401), U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590, (202) 366-9721.

Dated: December 29, 2005.  
Michael W. Reynolds,  
Acting Assistant Secretary for Aviation and International Affairs.  
[FR Doc. 06-66 Filed 1-4-06; 8:45 am]  
BILLING CODE 4910-62-P

<sup>46</sup> 17 CFR 200.30-3(a)(12).



**DEPARTMENT OF TRANSPORTATION****Office of the Secretary of Transportation**

[Docket No. OST-2005-23418]

**Applications for Authority for Tax-Exempt Financing of Highway Projects and Rail-Truck Transfer Facilities****AGENCIES:** Office of the Secretary of Transportation (OST), DOT.**ACTION:** Notice of solicitation for requests for allocations of tax-exempt financing and request for comments.

**SUMMARY:** Section 11143 of Title XI of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users amends the Internal Revenue Code by creating a new class of tax-exempt facility bonds for qualified highway and surface freight transfer facilities. The law limits the total amount of such bonds to \$15 billion and directs the Secretary of Transportation to allocate this amount among qualified facilities. This notice solicits requests for such allocations from interested entities that meet the statutory requirements. The Department also requests comments from the public that it may consider in its application of the authority provided by Section 11143.

**DATES:** Comments may be submitted at any time and will be considered as appropriate whenever they are submitted.

**ADDRESSES:** *Comments:* To make sure your comments and related material are not entered more than once in the docket, please submit them identified by docket number OST-2005-23418 by only one of the following means:

(1) *Web Site:* <http://dms.dot.gov>.

Follow the instructions for submitting comments on the electronic docket site.

(2) *Fax:* 202-493-2251.

(3) *Mail:* Dockets Management Facility, U.S. Department of Transportation, M-30, Room PL-401, 400 Seventh Street SW., Washington, DC 20590.

(4) *Hand Delivery:* Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*Instructions:* All submissions must include the agency name and docket number of this notice. Due to security procedures in effect since October 2001 on mail deliveries, mail received through the Postal Service may be subject to delays. Commenters should consider using an express mail firm to ensure the prompt filing of any

comments not submitted electronically or by hand. Note that all comments received will be posted without change to <http://dms.dot.gov>, including any personal information provided. Please see the Privacy Act heading under Regulatory Analysis and Notices.

*Docket:* For access to the docket to read background documents or comments received, go to <http://dms.dot.gov> at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*Applications:* Mr. Jack Bennett, Office of the Assistant Secretary for Transportation Policy, Office of Economic and Strategic Analysis (P-20), Room 10305-E, 400 Seventh Street SW., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Jack Bennett, U.S. Department of Transportation, Office of the Assistant Secretary for Transportation Policy, Office of Economic and Strategic Analysis (P-20), 400 Seventh Street SW., Washington, DC 20590; (202) 366-6222.

**SUPPLEMENTARY INFORMATION:****A. Statutory Background**

Section 11143 of Title XI of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law Number 109-59, 119 Stat. 1144 (Aug. 10, 2005) (the Act), amends § 142 of title 26, United States Code (hereinafter referred to as the Internal Revenue Code or the Code) by adding sections 142(a)(15) and 142(m). These amendments create a new class of tax-exempt financing for qualified highway or surface freight transfer facilities. The law limits the amount of tax-exempt financing available under this provision to \$15 billion nationally and charges the Secretary of Transportation with allocating this \$15 billion among qualified facilities. The relevant statutory provisions of the Code include:

- Section 103(a) of the Code provides that, except as provided in section 103(b), gross income does not include interest on any State or local bond.

- Section 103(b)(1) provides that the exclusion under section 103(a) does not apply to any private activity bond that is not a qualified bond (within the meaning of section 141).

- Section 141(e) provides that the term "qualified bond" includes an exempt facility bond that meets certain requirements.

- New section 142(a)(15) provides that the term "exempt facility bond"

includes qualified highway or surface freight transfer facilities.

- New section 142(m) defines the new class of exempt facility bonds for qualified highway or surface freight transfer facilities.

- Section 142(m)(1) defines "qualified highway or surface freight transfer facilities" as:

(A) Any surface transportation project which receives Federal assistance under title 23, United States Code (as in effect on August 10, 2005, the date of the enactment of section 142(m)),

(B) Any project for an international bridge or tunnel for which an international entity authorized under Federal or State law is responsible and which receives Federal assistance under title 23, United States Code (as so in effect), or

(C) Any facility for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to such transfers) which receives Federal assistance under title 23 or title 49, United States Code (as so in effect).

Examples of intermodal freight transfer facilities for the transfer of freight from truck to rail or rail to truck include cranes, loading docks, and computer-controlled equipment that are integral to such freight transfers. Examples of facilities that are not freight transfer facilities include lodging, retail, industrial, or manufacturing facilities, except to the extent that such facilities also include freight transfer activities.

- Section 142(m)(2)(A) provides a \$15,000,000,000 national limitation on the aggregate amount of tax-exempt financing for qualified highway or surface freight transfer facilities allocated by the Secretary.

- Section 142(m)(2)(B) provides that an issue shall not be treated as an issue described in section 142(a)(15) for a qualified highway or surface freight transfer facility if the aggregate face amount of bonds issued pursuant to such issue for any qualified highway or surface freight transfer facility (when added to the aggregate face amount of bonds previously so issued for such facility) exceeds the amount allocated to such facility by the Secretary of Transportation under section 142(m)(2)(C).

- Section 142(m)(2)(C) provides that the Secretary of Transportation shall allocate the \$15,000,000,000 national limitation among qualified highway or surface freight transfer facilities in such manner as the Secretary determines appropriate.

- Section 142(m)(3) provides that an issue shall not be treated as an issue described in section 142(a)(15) for a

qualified highway or surface freight transfer facility unless at least 95 percent of the net proceeds of the issue is expended for qualified highway or surface freight transfer facilities within the 5-year period beginning on the date of issuance. If at least 95 percent of such net proceeds is not expended within such 5-year period, an issue shall be treated as continuing to meet the 5-year spending requirements of section 142(m)(3) if the issuer uses all unspent proceeds of the issue to redeem bonds of the issue within 90 days after the end of such 5-year period. The Secretary of the Treasury, at the request of the issuer, may extend such 5-year period if the issuer establishes that any failure to meet such period is due to circumstances beyond the control of the issuer.

- Section 142(m)(4) provides an exception to the volume limit in section 142(m)(2) for any bond (or series of bonds) issued to refund a bond issued under section 142(a)(15) if:

(A) The average maturity date of the issue of which the refunding bond is a part is not later than the average maturity date of the bonds to be refunded by such issue (for this purpose, "average maturity" is determined in accordance with section 147(b)(2)(A)),

(B) The amount of the refunding bond does not exceed the outstanding amount of the refunded bond, and

(C) The refunded bond is redeemed not later than 90 days after the date of the issuance of the refunding bond.

- Section 11143(c) of SAFETEA-LU provides that exempt facility bonds described in section 142(a)(15) for qualified highway and surface freight transfer facilities are exempt from general state volume caps on private activity bonds in section 146.

#### B. Applications for Allocations

Parties who wish to take advantage of the tax-exempt financing provided by Section 11143 of SAFETEA-LU are invited to apply to DOT for an allocation of this authority. Upon receipt of such an application, the Department will, after due consideration, either accept or reject the application, or communicate further with the applicant if additional information is needed to fully consider the application. The Department is not specifying any form for an application, nor is it requiring all or any of the information listed below to be included in the initial application. Nevertheless, applicants may wish to include the following information to facilitate the Department's consideration of the application:

1. *Amount of Allocation Requested.*
2. *Proposed Date of Bond Issuance.*

Provide the approximate date when it is anticipated that the tax-exempt bonds would be issued should authority to do so be allocated by the Department.

3. *Date of Inducement by the Bond Issuer.* Provide a copy of a resolution adopted in accordance with state or local law authorizing the issuance of a specific issue of obligations. The resolution may state that issuance of obligations is contingent upon receipt of an allocation from the Secretary of Transportation of a portion of the \$15,000,000,000 national limitation.

4. *Draft Bond Counsel Opinion Letter.* Provide Form of Bond Counsel Opinion or date by which a draft letter will be provided.

5. *Financing/Development Team Information.* Provide the names of the issuer of the bonds, the borrower, and any other key participants in the financing, with complete contact information, including Federal taxpayer identification numbers.

6. *Borrower Information:* For each borrower, provide the official business name, ownership and legal structure (corporation, partnership, or sole proprietorship), Federal taxpayer identification number, and prior experience as it relates to carrying out projects similar to that proposed. For the purposes of this Notice, the term "borrower" includes any borrower of the bond proceeds or any other entity responsible for re-paying the bonds.

7. *Project Description.* Describe the project as a whole and the proposed organizational and legal structure of the project (ownership, franchise or lease arrangements, etc.). Describe the portion of the project and all capital assets to be funded with the proceeds of the exempt facility bonds. If the application is for an international bridge or tunnel under section 142(m)(1)(B), the project description should include a representation that the international entity that has responsibility for the project is authorized under Federal or state law.

8. *Project Schedule.* Provide a timeline showing the estimated start and completion dates for each major phase or milestone of project development. Indicate the current status of milestones on this timeline, including all necessary permits and environmental approvals.

9. *Financial Structure.* Provide a statement of anticipated sources and uses of funds for the project, including separate line items, as applicable, for proceeds of exempt facility bonds or other borrowing, federal grants, state and local grants, other credit assistance,

and private investment. Provide a projected drawdown schedule for the use of funds, project revenue and expenses, and sources of security and repayment for the bonds.

10. *Description of Title 23/49 U.S.C. funding received by the project.* Provide the date (or anticipated date) of receipt and types and amount of financial assistance.

11. *Project Readiness.* Describe the financing/development team's capacity to undertake this project. Discuss readiness to begin the project. List all major permits and approvals necessary for construction of the project and the date, or projected date, of the receipt of such permits or approvals. Include information on engineering work, and procurement of construction.

12. *Signatures.* Applications should be signed by a duly authorized representative of the proposed issuer and a duly authorized representative of each proposed borrower. Applications may be submitted by the proposed issuer or the proposed borrower.

13. *Declarations.* Each application, including any supporting reports or other document, should include the following declaration signed by an individual who has personal knowledge of the relevant facts and circumstances: "Under penalties of perjury, I declare that I have examined this document and, to the best of my knowledge and belief, the document contains all the relevant facts relating to the document, and such facts are true, correct, and complete."

14. *Addresses.* Applications should be submitted (with 10 copies) to: Mr. Jack Bennett, U.S. Department of Transportation, Office of the Assistant Secretary for Transportation Policy, P-20, Room 10305 E, 400 7th Street SW., Washington, DC 20590.

#### C. Consideration of Applications

Upon receipt, the Department will consider the application in light of applicable statutory requirements and the availability of tax-exempt authority for the type and location of the project for which the allocation is requested. If the Department needs additional information from the applicant, the Department will contact the applicant to arrange for the submission the required information.

In making application to the Department, applicants should note that there are no specific standards, beyond those set forth in applicable laws or regulation, that apply to the consideration of the applications.

The Department is particularly concerned that once it makes an allocation, tax-exempt facility bonds are

issued in timely fashion. Hence, if the schedules agreed upon in the final allocation action are not met, the allocation may be withdrawn.

#### D. Compliance With Rules Governing Qualified Private Activity Bonds

The application process described in this Notice only goes to allocation of tax-exempt financing by the Department of Transportation. All representations made as part of this application process are subject to verification on examination. In addition, except as otherwise provided in this Notice, nothing in this Notice shall be construed as overriding any requirements or limitations applicable to exempt facility bonds found in sections 103 and 141 through 150 of the Code and the applicable regulations thereunder, or affecting the ability of the IRS to examine the bond issue for compliance with those requirements or limitations.

#### E. Request for Comments

Interested parties are invited to provide comment on how the Department should exercise the allocation authority provided by Section 11143 of SAFETEA-LU. Comments may address both the process described in this notice and any other matters that the commenter believes would be useful for the Department to consider in its administration of this provision of SAFETEA-LU. This is new authority for the DOT, and the Department will be continually examining its implementation of this provision to ensure that allocations are occurring in a fair and reasonable manner, that this tax-exempt bonding authority is fully utilized, and that this financing opportunity adds to the vitality of the Nation's transportation system.

Jeffrey N. Shane,

*Under Secretary of Transportation for Policy.*  
[FR Doc. E5-8306 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-62-P

### DEPARTMENT OF TRANSPORTATION

#### Federal Aviation Administration

#### Air Traffic Procedures Advisory Committee

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of public meeting.

**SUMMARY:** The FAA is issuing this notice to advise the public that a meeting of the Federal Aviation Air Traffic Procedures Advisory Committee (ATPAC) will be held to review present

air traffic control procedures and practices for standardization, clarification, and upgrading of terminology and procedures.

**DATES:** The meeting will be held Tuesday, January 24, 2006 through Thursday, January 26, 2006, from 8 a.m. to 4:30 p.m. each day.

**ADDRESSES:** The meeting will be held at the National Aeronautics and Space Administration Aviation Safety Reporting System, 385 Moffett Park Drive, Sunnyvale, California 94089.

**FOR FURTHER INFORMATION CONTACT:** Ms. Nancy Kalinowski, Executive Director, ATPAC, System Operations Airspace and AIM, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-9205.

**SUPPLEMENTARY INFORMATION:** Pursuant to Section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 2), notice is hereby given of a meeting of the ATPAC to be held Tuesday, January 24, 2006 through Thursday, January 26, 2006, from 8 a.m. to 4:30 p.m. each day.

The agenda for this meeting will cover: a continuation of the Committee's review of present air traffic control procedures and practices for standardization, clarification, and upgrading of terminology and procedures. It will also include:

1. Approval of Minutes.
2. Submission and Discussion of Areas of Concern.
3. Discussion of Potential Safety Items.
4. Report from Executive Director.
5. Items of Interest.
6. Discussion and agreement of location and dates for subsequent meetings.

Attendance is open to the interested public but limited to space available. With the approval of the Chairperson, members of the public may present oral statements at the meeting. Persons desiring to attend and persons desiring to present oral statement should notify the person listed above not later than January 18, 2006. The next quarterly meeting of the FAA ATPAC is planned to be held from April 24-26, 2006, in Washington, DC.

Any member of the public may present a written statement to the Committee at any time at the address given above.

Issued in Washington, DC, on December 30, 2005.

Nancy B. Kalinowski,  
*Executive Director, Air Traffic Procedures Advisory Committee.*

[FR Doc. E5-8313 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-13-P

### DEPARTMENT OF TRANSPORTATION

#### Federal Motor Carrier Safety Administration

[Docket Nos. FMCSA-99-5748, FMCSA-99-6156, FMCSA-2001-9258, FMCSA-2003-16241]

#### Qualification of Drivers; Exemption Applications; Vision

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Notice of renewal of exemption; request for comments.

**SUMMARY:** FMCSA announces its decision to renew the exemptions from the vision requirement in the Federal Motor Carrier Safety Regulations for 13 individuals. FMCSA has statutory authority to exempt individuals from vision standards if the exemptions granted will not compromise safety. The agency has concluded that granting these exemptions will provide a level of safety that will be equivalent to, or greater than, the level of safety maintained without the exemptions for these commercial motor vehicle (CMV) drivers.

**DATES:** This decision is effective January 3, 2006. Comments must be received on or before February 6, 2006.

**ADDRESSES:** You may submit comments by any of the following methods. Please label your comments with DOT DMS Docket Numbers FMCSA-99-5748, FMCSA-99-6156, FMCSA-2001-9258, or FMCSA-2003-16241.

- Web site: <http://dms.dot.gov>. Follow the instructions for submitting comments on the DOT electronic docket site.

- Fax: 1-202-493-2251.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

All submissions must include the agency name and docket number for this notice. Note that all comments received will be posted without change to <http://dms.dot.gov>, including any personal information provided. To read background documents or comments received, go to <http://dms.dot.gov> or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Dr. Mary D. Gunnels, Chief, Physical Qualifications Division, (202) 366-4001, FMCSA, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001. Office hours are from 8 a.m. to 5 p.m., E.T., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

**Public Comments:** The DMS is generally available 24 hours each day, except when announced system maintenance requires a brief interruption in service. You can get electronic submission and retrieval help guidelines under the "help" section of the DMS web site. If you want us to notify you that we received your comments, please include a self-addressed, stamped envelope or postcard. An acknowledgement page appears after submitting comments online and can be printed to document submission of comments.

**Privacy Act:** Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review the Department of Transportation'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>.

**Exemption Decision**

Under 49 U.S.C. 31315 and 31136(e), FMCSA may renew an exemption from the vision requirements in 49 CFR 391.41(b)(10), which applies to drivers of CMVs in interstate commerce, for a two-year period if it finds "such exemption would likely achieve a level of safety that is equivalent to, or greater than, the level that would be achieved absent such exemption." The procedures for requesting an exemption (including renewals) are set out in 49 CFR part 381. This notice addresses 13 individuals who have requested renewal of their exemptions in a timely manner. FMCSA has evaluated these 13 applications for renewal on their merits and decided to extend each exemption for a renewable two-year period. They are: Woodrow E. Bohley, Kenneth E. Bross, Russell W. Foster, Curtis N. Fulbright, George A. Hoffman, III, Richard L. Loeffelholz, Herman C. Mash, Frank T. Miller, Martin Postma, Ezequiel Ramirez, Robert G. Rascicot, Jon H. Wurtele, and Walter M. Yohn, Jr.

These exemptions are extended subject to the following conditions: (1) That each individual have a physical examination every year (a) by an

ophthalmologist or optometrist who attests that the vision in the better eye continues to meet the standard in 49 CFR 391.41(b)(10), and (b) by a medical examiner who attests that the individual is otherwise physically qualified under 49 CFR 391.41; (2) that each individual provide a copy of the ophthalmologist's or optometrist's report to the medical examiner at the time of the annual medical examination; and (3) that each individual provide a copy of the annual medical certification to the employer for retention in the driver's qualification file and retain a copy of the certification on his/her person while driving for presentation to a duly authorized Federal, State, or local enforcement official. Each exemption will be valid for two years unless rescinded earlier by FMCSA. The exemption will be rescinded if: (1) The person fails to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31315 and 31136(e).

**Basis for Renewing Exemptions**

Under 49 U.S.C. 31315(b)(1), an exemption may be granted for no longer than two years from its approval date and may be renewed upon application for additional two year periods. In accordance with 49 U.S.C. 31315 and 31136(e), each of the 13 applicants has satisfied the entry conditions for obtaining an exemption from the vision requirements (64 FR 40404; 64 FR 66962; 66 FR 66969; 68 FR 69432; 64 FR 54948; 65 FR 159; 66 FR 17743; 66 FR 33990; 68 FR 35772; 68 FR 61857; 68 FR 75715). Each of these 13 applicants has requested timely renewal of the exemption and has submitted evidence showing that the vision in the better eye continues to meet the standard specified at 49 CFR 391.41(b)(10) and that the vision impairment is stable. In addition, a review of each record of safety while driving with the respective vision deficiencies over the past two years indicates each applicant continues to meet the vision exemption standards. These factors provide an adequate basis for predicting each driver's ability to continue to drive safely in interstate commerce. Therefore, FMCSA concludes that extending the exemption for each renewal applicant for a period of two years is likely to achieve a level of safety equal to that existing without the exemption.

**Request for Comments**

FMCSA will review comments received at any time concerning a particular driver's safety record and determine if the continuation of the exemption is consistent with the requirements at 49 U.S.C. 31315 and 31136(e). However, FMCSA requests that interested parties with specific data concerning the safety records of these drivers submit comments by February 6, 2006.

FMCSA believes that the requirements for a renewal of an exemption under 49 U.S.C. 31315 and 31136(e) can be satisfied by initially granting the renewal and then requesting and evaluating, if needed, subsequently comments submitted by interested parties. As indicated above, the agency previously published notices of final disposition announcing its decision to exempt these 17 individuals from the vision requirement in 49 CFR 931.41(b)(10). That final decision to grant the exemption to each of these individuals was based on the merits of each case and only after careful consideration of the comments received to its notices of applications. Those notices of applications stated in detail the qualifications, experience, and medical condition of each applicant for an exemption from the vision requirements. That information is available by consulting the above cited *Federal Register* publications.

Interested parties or organizations possessing information that would otherwise show that any, or all of these drivers, are not currently achieving the statutory level of safety should immediately notify FMCSA. The agency will evaluate any adverse evidence submitted and, if safety is being compromised or if continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31315 and 31136(e), FMCSA will take immediate steps to revoke the exemption of a driver.

Issued on: December 28, 2005.

**Larry W. Minor,**

*Director, Office of Bus and Truck Standards and Operations.*

[FR Doc. E5-8303 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-EX-P



**DEPARTMENT OF TRANSPORTATION****Federal Motor Carrier Safety Administration**

[Docket Nos. FMCSA-2001-10578, FMCSA-2003-16241]

**Qualification of Drivers; Exemption Applications; Vision**

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Notice of renewal of exemption; request for comments.

**SUMMARY:** FMCSA announces its decision to renew the exemptions from the vision requirement in the Federal Motor Carrier Safety Regulations for 17 individuals. FMCSA has statutory authority to exempt individuals from vision standards if the exemptions granted will not compromise safety. The agency has concluded that granting these exemptions will provide a level of safety that will be equivalent to, or greater than, the level of safety maintained without the exemptions for these commercial motor vehicle (CMV) drivers.

**DATES:** This decision is effective December 30, 2005. Comments from interested persons should be submitted by February 6, 2006.

**ADDRESSES:** You may submit comments identified by DOT DMS Docket Numbers FMCSA-2001-10578 or FMCSA-2003-16241 by any of the following methods:

- Web site: <http://dms.dot.gov>.

Follow the instructions for submitting comments on the DOT electronic docket site.

- Fax: 1-202-493-2251.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

All submissions must include the agency name and docket numbers for this notice. For detailed instructions on submitting comments and additional information on the rulemaking process, see the Public Participation heading of the Supplementary Information section of this document. Note that all comments received will be posted without change to <http://dms.dot.gov>, including any personal information provided. Please see the Privacy Act heading under Regulatory Notices.

**Docket:** For access to the docket to read background documents or

comments received, go to <http://dms.dot.gov> at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

**FOR FURTHER INFORMATION CONTACT:** Dr. Mary D. Gunnels, Chief, Physical Qualifications Division, (202) 366-4001, FMCSA, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001. Office hours are from 9 a.m. to 5 p.m., e.t., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

**Public Participation:** The DMS is generally available 24 hours each day, except when announced system maintenance requires a brief interruption in service. You can get electronic submission and retrieval help guidelines under the "help" section of the DMS Web site. If you want us to notify you that we received your comments, please include a self-addressed, stamped envelope or postcard. An acknowledgement page appears after submitting comments online and can be printed to document submission of comments.

**Privacy Act:** Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review the Department of Transportation'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>.

**Exemption Decision**

Under 49 U.S.C. 31315 and 31136(e), FMCSA may renew an exemption from the vision requirements in 49 CFR 391.41(b)(10), which applies to drivers of CMVs in interstate commerce, for a two-year period if it finds "such exemption would likely achieve a level of safety that is equivalent to, or greater than, the level that would be achieved absent such exemption." The procedures for requesting an exemption (including renewals) are set out in 49 CFR part 381. This notice addresses 17 individuals who have requested renewal of their exemptions in a timely manner. FMCSA has evaluated these 17 applications for renewal on their merits and decided to extend each exemption for a renewable two-year period. They are: Ronald G. Austin, Zack Bradford, Rickey C. Dalton, Martiano L. Espinosa, Derek T. Ford, Paul C. Gruenberg, Jr.,

James G. LaBair, Dennis A. Leschke, Lonnie Lomax, Jr., Bennet G. Maruska, James T. McGinnis, Gary L. Miller, Eugene C. Murphy, Carl W. Skinner, Jr., Stephen G. Sniffin, Doyce J. Soriez, and Jack E. Wilson.

These exemptions are extended subject to the following conditions: (1) That each individual have a physical examination every year (a) by an ophthalmologist or optometrist who attests that the vision in the better eye continues to meet the standard in 49 CFR 391.41(b)(10), and (b) by a medical examiner who attests that the individual is otherwise physically qualified under 49 CFR 391.41; (2) that each individual provide a copy of the ophthalmologist's or optometrist's report to the medical examiner at the time of the annual medical examination; and (3) that each individual provide a copy of the annual medical certification to the employer for retention in the driver's qualification file and retain a copy of the certification on his/her person while driving for presentation to a duly authorized Federal, State, or local enforcement official. Each exemption will be valid for two years unless rescinded earlier by FMCSA. The exemption will be rescinded if: (1) The person fails to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31315 and 31136(e).

**Basis for Renewing Exemptions**

Under 49 U.S.C. 31315(b)(1), an exemption may be granted for no longer than two years from its approval date and may be renewed upon application for additional two year periods. In accordance with 49 U.S.C. 31315 and 31136(e), each of the 17 applicants has satisfied the entry conditions for obtaining an exemption from the vision requirements (66 FR 53826; 66 FR 66966; 68 FR 69434; 68 FR 61857; 68 FR 75715). Each of these 17 applicants has requested timely renewal of the exemption and has submitted evidence showing that the vision in the better eye continues to meet the standard specified at 49 CFR 391.41(b)(10) and that the vision impairment is stable. In addition, a review of each record of safety while driving with the respective vision deficiencies over the past two years indicates each applicant continues to meet the vision exemption standards. These factors provide an adequate basis for predicting each driver's ability to continue to drive safely in interstate commerce. Therefore, FMCSA



concludes that extending the exemption for each renewal applicant for a period of two years is likely to achieve a level of safety equal to that existing without the exemption.

#### Request for Comments

FMCSA will review comments received at any time concerning a particular driver's safety record and determine if the continuation of the exemption is consistent with the requirements at 49 U.S.C. 31315 and 31136(e). However, FMCSA requests that interested parties with specific data concerning the safety records of these drivers submit comments by February 6, 2006.

FMCSA believes that the requirements for a renewal of an exemption under 49 U.S.C. 31315 and 31136(e) can be satisfied by initially granting the renewal and then requesting and evaluating, if needed, subsequently comments submitted by interested parties. As indicated above, the agency previously published notices of final disposition announcing its decision to exempt these 17 individuals from the vision requirement in 49 CFR 931.41(b)(10). That final decision to grant the exemption to each of these individuals was based on the merits of each case and only after careful consideration of the comments received to its notices of applications. Those notices of applications stated in detail the qualifications, experience, and medical condition of each applicant for an exemption from the vision requirements. That information is available by consulting the above cited **Federal Register** publications.

Interested parties or organizations possessing information that would otherwise show that any, or all of these drivers, are not currently achieving the statutory level of safety should immediately notify FMCSA. The agency will evaluate any adverse evidence submitted and, if safety is being compromised or if continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31315 and 31136(e), FMCSA will take immediate steps to revoke the exemption of a driver.

Issued on: December 28, 2005.

**Larry W. Minor,**  
Director, Office of Bus and Truck Standards  
and Operations.

[FR Doc. E5-8304 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-EX-P

## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2005-23198]

#### Pipeline Safety: Mechanical Damage Technical Workshop

**AGENCY:** Pipeline and Hazardous  
Materials Safety Administration  
(PHMSA), DOT.

**ACTION:** Notice of workshop.

**SUMMARY:** PHMSA and the National Association of Pipeline Safety Representatives (NAPSR) are hosting this workshop to address pipeline safety issues with mechanical damage. Several pipeline industry trade associations are participating in the development of the workshop agenda. Mechanical damage from third party intrusion and latent defects caused during pipeline construction remains a leading cause of major incidents. This workshop will provide a forum to share information on mechanical damage among pipeline operators, state agencies, technical experts, and the public. Participants will discuss and learn about prevention, detection, and characterization technologies for mechanical damage. This information will aid PHMSA in coordinating actions to address the problems mechanical damage poses in operating natural gas and hazardous liquid pipelines.

**DATES:** PHMSA will hold the meeting on Tuesday, February 28, 2006, from 8 a.m. to 4:30 p.m. and Wednesday, March 1, 2006, from 9 a.m. to 4:30 p.m.

**ADDRESSES:** PHMSA will hold the meeting at the Houston Marriott Westchase, 2900 Briar Park Drive, Houston, Texas 77042. The telephone number for hotel reservations is (713) 978-7400 or 1-(800) 452-5110.

**FOR FURTHER INFORMATION CONTACT:** Please contact Robert Smith at (202) 366-3814, or [robert.w.smith@dot.gov](mailto:robert.w.smith@dot.gov), regarding the subject matter of this notice. For information regarding hotel accommodations for individuals with disabilities, please contact the hotel staff at (713) 978-7400.

#### SUPPLEMENTARY INFORMATION:

**Who Should Attend:** PHMSA urges Federal and State pipeline safety regulators and operators of natural gas transmission and distribution, and hazardous liquid pipelines to attend. Workshop attendees will discuss and see existing and future technology used to prevent, detect and characterize mechanical damage.

**Registration with PHMSA:** To facilitate meeting planning, advance

registration is strongly encouraged. Please visit the Meeting Registration and Document Commenting webpage (<http://primis.phmsa.dot.gov/meetings/>) where PHMSA will post details about the meeting.

**Hotel Registration:** PHMSA has reserved a room rate of \$92.00 per night for the first 100 reservations for both Monday, February 27 and Tuesday, February 28, 2006. Mention the Department of Transportation/PHMSA or the Mechanical Damage Technical Workshop when speaking with the hotel. The hotel must receive reservations by attendees on or before, February 13, 2006.

**Background:** PHMSA and NAPSR are hosting this workshop to address pipeline safety issues with mechanical damage. Several pipeline industry trade associations are participating in the development of the workshop agenda. The participating trade associations are the American Gas Association, Association of Oil Pipe Lines, American Public Gas Association, American Petroleum Institute, Common Ground Alliance, Interstate Natural Gas Association of America, In Line Inspection Association and the Pipeline Research Council International. The results of this workshop and the information shared will further research on mechanical damage and document the state of current damage prevention, detection and characterization technology.

Mechanical damage from third party intrusion and latent defects caused during pipeline construction remains a leading cause of major pipeline incidents. Mechanical damage defect types are commonly identified as denting, metal loss, metal deformation, and cracking. Several existing technologies are in practice to prevent, detect and characterize damage to pipelines. Regulators, operators, and commercial vendors have varying levels of confidence in these technologies. Several organizations fund or conduct research addressing mechanical damage technology. Organizations developing mutual technology goals will lead to aligning resources, better synergy, and better dissemination of information about new technologies. This will promote pipeline safety across the industry. The workshop aims to identify confidence levels with existing technologies, build research synergy, and gauge the state of our efforts to address mechanical damage.

Issued in Washington, DC, on December 30, 2005.

Stacey L. Gerard,  
Associate Administrator for Pipeline Safety.  
[FR Doc. 06-78 Filed 1-4-06; 8:45 am]

BILLING CODE 4910-60-P

## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2004-19857]

#### Pipeline Safety: Public Meeting on Operator Qualifications

**AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

**ACTION:** Notice of availability of materials from public meeting; request for comments.

**SUMMARY:** This notice announces the availability of materials, including a revised concept paper, presented at the public meeting on operator qualification programs on December 15, 2005. PHMSA is preparing a report to Congress on the status and results of these programs to ensure the qualifications of individuals performing safety tasks on pipelines. Participants at the meeting discussed progress on operator qualification programs to help PHMSA prepare the report to Congress. Participants also discussed the potential for strengthening operator qualification programs. PHMSA requests public comment on these matters.

**DATES:** Submit comments on the progress on operator qualification programs by January 20, 2006. Submit comments on the potential for strengthening operator qualification programs by February 10, 2006.

**ADDRESSES:** You may file written comments by mail or deliver them to the Dockets Facility, U.S. Department of Transportation, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590-0001. The Dockets Facility is open from 9 a.m. to 5 p.m., Monday through Friday, except Federal holidays. You also may file written comments to the docket electronically by logging onto the following Internet Web address: <http://dms.dot.gov>. Click on "Help & Information" for instructions on how to file a document electronically. All written comments should reference docket number PHMSA-2004-19857. Anyone who would like confirmation of mailed comments must include a self-addressed stamped postcard.

*Privacy Act Statement:* Anyone may search the electronic form of all

comments received for any of our dockets. 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>.

**FOR FURTHER INFORMATION CONTACT:** Barbara Betsock at (202) 366-4361 or [Barbara.Betsock@dot.gov](mailto:Barbara.Betsock@dot.gov).

**SUPPLEMENTARY INFORMATION:** The Pipeline Safety Improvement Act of 2002 directs PHMSA to file a report to Congress on the status and results of the operator qualification programs by December 17, 2006. To complete this report on time, PHMSA requests comments on the progress of these programs.

In addition, PHMSA is considering additional action to strengthen operator qualification programs. PHMSA announced the December 15, 2005, public meeting in a **Federal Register** notice on October 28, 2005 (70 FR 62161). Before the meeting, PHMSA posted a concept paper on its Web page (<http://ops.dot.gov>). Based on discussions during the public meeting and during a meeting of PHMSA's pipeline safety advisory committees on December 13, 2005, PHMSA posted a revised concept paper. PHMSA requests comments on the approach to strengthening operator qualification programs outlined in this revised concept paper.

Issued in Washington, DC, on December 29, 2005.

Stacey L. Gerard,  
Associate Administrator for Pipeline Safety.  
[FR Doc. 05-24703 Filed 12-30-05; 11:24 am]

BILLING CODE 4910-60-P

## DEPARTMENT OF THE TREASURY

### Departmental Offices; Interim Guidance Concerning the Terrorism Risk Insurance Extension Act of 2005

**AGENCY:** Departmental Offices, Department of the Treasury.

**ACTION:** Notice.

**SUMMARY:** This notice provides interim guidance to insurers, policyholders, state insurance regulators and the public concerning recent statutory amendments to the Terrorism Risk Insurance Act of 2002 (Pub. L. 107-297, 116 Stat. 2322). In particular, this notice provides interim guidance on the types of commercial property and casualty insurance covered by the Act, the requirements to satisfy the Act's mandatory availability ("make

available") provision and on the operation of the new "Program Trigger" provision in section 103(e)(1)(B) of the Act.

**DATES:** This notice is effective immediately and will remain in effect until superseded by regulations or by subsequent notice.

**FOR FURTHER INFORMATION CONTACT:** Howard Leikin, Deputy Director, Terrorism Risk Insurance Program or David J. Brummond, Legal Counsel, Terrorism Risk Insurance Program (202-622-6770).

**SUPPLEMENTARY INFORMATION:** This notice provides interim guidance to assist insurers and policyholders in understanding certain requirements of the Terrorism Risk Insurance Act of 2002 as amended by the Terrorism Risk Insurance Extension Act of 2005 (Pub. L. 109-144, 119 Stat. 2660) pending the issuance of regulations by the Department of the Treasury. The interim guidance contained in this notice may be relied upon by insurers in complying with these statutory requirements prior to the issuance of regulations, but is not the exclusive means of compliance. This interim guidance remains in effect until superseded by regulations or subsequent notice.

#### I. Background

On November 26, 2002, the President signed into law the Terrorism Risk Insurance Act of 2002 (Pub. L. 107-297) (TRIA or the Act). The Act became effective immediately. It established a temporary Terrorism Risk Insurance Program (TRIP or the Program) of shared public and private compensation for insured commercial property and casualty losses resulting from an act of terrorism, as defined in the Act. The Act was scheduled to expire on December 31, 2005.

On December 22, 2005, the President signed into law the Terrorism Risk Insurance Extension Act of 2005 (Extension Act), which extends TRIA through December 31, 2007. In doing so, the Extension Act adds Program Year 4 (January 1-December 31, 2006) and Program Year 5 (January 1-December 31, 2007) to the Program. In addition, the Extension Act made other significant changes to TRIA that include:

- A revised definition of "Insurer Deductible" that adds new Program Years 4 and 5 to the definition. The insurer deductible is set as the value of an insurer's direct earned premium for commercial property and casualty insurance (as now defined in the Act) over the immediately preceding calendar year multiplied by 17.5 percent

for Program Year 4 and 20 percent for Program Year 5.

- A revised definition of "Property and Casualty Insurance" that now excludes commercial automobile insurance; burglary and theft insurance; surety insurance; professional liability insurance; and farm owners multi-peril insurance. Though the definition excludes professional liability insurance, it explicitly retains directors and officers liability insurance.

- Creation of a new "Program Trigger" for any certified act of terrorism occurring after March 31, 2006, that prohibits payment of Federal compensation by Treasury unless the aggregate industry insured losses resulting from that act of terrorism exceed \$50 million for Program Year 4 and \$100 million for Program Year 5.

- A change to the Federal share of compensation for insured losses. Subject to the Program Trigger, the Federal Share is 90 percent of that portion of the amount of insured losses that exceeds the applicable insurer deductible in Program Year 4 and decreases to 85 percent of such amount in Program Year 5.

- Revisions to the recoupment provisions. For purposes of recouping the Federal share of compensation under the Act, the "insurance marketplace aggregate retention amount" for the two additional years of the Program is increased from the level in Program Year 3. For Program Year 4 the "insurance marketplace aggregate retention amount" is established as the lesser of \$25 billion and the aggregate amount, for all insurers, of insured losses during Program Year 4. The "insurance marketplace aggregate retention amount" for Program Year 5 is the lesser of \$27.5 billion and the aggregate amount, for all insurers, of insured losses during Program Year 5.

- A statutory codification of Treasury's litigation management regulatory requirements in section 50.82 of title 31 of the Code of Federal Regulations (as in effect on July 28, 2004), which requires advanced approval by Treasury of proposed settlements of certain causes of action involving insured losses under the Program.

## II. Interim Guidance

Treasury will be issuing regulations to administer and implement TRIA, as amended by the Extension Act. This notice is issued to assist insurers in complying with certain statutory requirements prior to the issuance of such regulations. This notice contains interim guidance concerning compliance with the mandatory

availability or "make available" requirements in section 103(c) of the Act, revisions to commercial lines of property and casualty insurance as defined by section 102(12) of the Act, and the operation of the new Program Trigger in section 103(e) of the Act.

### A. Mandatory Availability

Has the "make available" requirement changed?

For Program Year 4 (Calendar 2006) and Program Year 5 (Calendar 2007) insurers are required to continue to "make available" coverage for insured losses as required by TRIA and Treasury regulations. Amendments to the "make available" requirement in section 103(c) of the Act are simply conforming amendments that continue the requirements through Program Years 4 and 5. Thus, insurers issuing or renewing commercial property and casualty insurance policies in Program Years 4 and 5 must continue to offer coverage for insured losses resulting from an act of terrorism as required by section 103(c) of the Act and 31 CFR 50.20 to 50.24 for their insured loss claims to be eligible for the Federal share of compensation in the extended Program Years.

Does an insurer have to provide a separate, new offer of terrorism risk insurance coverage on January 1, 2006, or shortly thereafter for property and casualty insurance policies that are now in mid-term if the insurer previously complied with the Act's "make available" requirement when the policy was issued or renewed in 2005?

No additional "make available" offer is required if terrorism coverage for the duration of the policy term was offered for policies issued or renewed in 2005. No additional action is required because the "make available" provision of section 103(c) of the Act and 31 CFR 50.20 to 50.24 has been satisfied for coverage periods extending into Program Year 4. For example, policies with "conditional" terrorism coverage exclusions that do not arise or become effective on or after January 1 are policies in which the terrorism coverage portion continues to cover insured losses within meaning of the Act. In such situations, no additional action is required for insurers to remain in compliance with the Act's "make available" provision.

What are the "make available" requirements for insurers who issued terrorism coverage that expired on December 31, 2005, but the remainder of the policy continues in force in 2006?

If terrorism coverage was made available and accepted by the policyholder but the terrorism portion of coverage expired on December 31, the insurer must provide the policyholder with a new offer of terrorism coverage pursuant to section 103(c) of the Act and 31 CFR 50.20 to 50.24 for the remaining period of coverage for the policy. Ideally, policyholders should be given the offer of terrorism coverage before January 1, 2006. However, Treasury recognizes the late date of passage of the Extension Act and the administrative difficulties this poses for some insurers who otherwise have complied with the "make available" provision in 2005. Treasury expects that all insurers will make a good faith effort to provide policyholders whose terrorism coverage expires as of January 1 with a new offer of terrorism coverage along with the appropriate disclosures by January 1, 2006, or as quickly as possible following that date. In this regard, Treasury considers January 31, 2006, to be the latest reasonable date for offers of coverage to midterm policyholders, barring unforeseen or unusual circumstances. If the January 31 date is not met by an insurer, Treasury will expect the insurer to explain any delay as well as its good faith efforts when submitting a claim for the Federal share of compensation under the Program. In its discretion, Treasury will determine whether good faith efforts to comply have been made.

What if terrorism coverage with an expiration of December 31, 2005 was offered and rejected by a policyholder in 2005; must an insurer that offered such coverage renew its offer of terrorism coverage for the remaining term of a policy that extends into 2006?

The Extension Act makes no changes to the "make available" requirement for insurers. However, if an insurer met its "make available" obligation by offering terrorism coverage that expired on December 31, 2005 for a policy otherwise extending into 2006, no further "make available" requirement will be expected of insurers during the remaining 2006 term of that policy if the offer of terrorism coverage was rejected by the policyholder at policy issuance or renewal in 2005. The insurer must nevertheless make an offer of terrorism coverage and appropriate disclosures at time of policy renewal in 2006.

What if a policy renewal or application was processed in 2005 for coverage becoming effective in 2006 and the insurer did not "make available" terrorism coverage for Program Year 4 as contemplated by the Extension Act?

The Extension Act makes no changes to the "make available" requirement for insurers under TRIA. If an insurer wishes to receive Federal compensation under the Program for insured losses, the insurer must "make available" terrorism coverage for insured losses for all policies becoming effective in 2006, even if the policy was processed in late 2005 or early 2006. However, as noted above, Treasury is mindful of the late date of the passage of the Extension Act. Treasury expects that all insurers will make a good faith effort to provide policyholders an offer of terrorism coverage and appropriate disclosures as quickly as possible following January 1, 2006 in circumstances where commercial property and casualty insurance coverage was processed in 2005 to become effective on or after January 1, 2006. As noted above, Treasury considers January 31, 2006 to be the latest reasonable date for offers of coverage, barring unforeseen or unusual circumstances. If the January 31 date is not met by an insurer, Treasury will expect the insurer to explain any delay as well as its good faith efforts when submitting a claim for the Federal share of compensation under the Program. In its discretion, Treasury will determine whether good faith efforts to comply have been made.

May an insurer still use NAIC Model Disclosure Forms to meet the disclosure requirement for property and casualty insurance policies with coverage extending into 2006 or for policies issued, purchased or renewed early in 2006?

Pursuant to 31 CFR 50.17, insurers are permitted to use NAIC Model Disclosure Forms that were in existence on April 18, 2003 to satisfying the disclosure requirements of section 103(b)(2) of the Act. Although the Extension Act made no change to the requirements for clear and conspicuous disclosure to policyholders of the premium charges for insured losses covered by the Program and of the Federal share of compensation for insured losses under the Program, revisions were made to the Act that may require rewording of the NAIC Model Disclosure Forms. It is Treasury's intention that an insurer may continue to use the NAIC Model Forms until such time that Treasury-endorsed revised forms are issued by NAIC. Future rulemaking by Treasury will be

initiated to provide insurers with a safe harbor in satisfying the disclosure requirement of the Act if the insurers use the latest available NAIC Model Disclosure Forms.

#### *B. Property and Casualty Insurance*

How will Treasury determine the types of property and casualty insurance that were recently excluded from the Program?

Section 102(12) of the Act was amended by adding types of insurance that are now excluded from the definition of property and casualty insurance under the Program. To the extent the new exclusions represent specific lines of business as used on the NAIC Annual Statement, Treasury will continue to utilize NAIC line of business definitions to determine coverage and premium issues in implementing the Act. The newly excluded lines of business from the NAIC Annual Statement include: Line 3—Farmowners Multiple Peril; Line 19.3—Commercial Auto No-Fault (personal injury protection); Line 19.4—Other Commercial Auto Liability; Line 21.2—Commercial Auto Physical Damage; Line 26—Burglary and Theft; Line 24—Surety; and Professional Liability Insurance as reported on Line 17—Other Liability (see below).

What about types of insurance that are excluded from the definition of property and casualty insurance but are not specific lines of business on the NAIC Annual Statement?

The only type of insurance that is newly excluded from the Act, but is not a specific line of business on the NAIC Annual Statement, is new subsection 102(12)(xi)—professional liability insurance. Until Treasury issues regulations or provides further guidance on the meaning of the definition of "professional liability insurance", insurers should use the following definition for what constitutes professional liability insurance:

Coverage available to pay for liability arising out of the performance of professional or business duties related to an occupation, with coverage being tailored to the needs of the specific occupation. Examples include abstractors, accountants, insurance adjusters, architects, engineers, insurance agents and brokers, lawyers, real estate agents and stockbrokers.

This interim definition is derived from the definition of "Professional Errors and Omissions Liability" found in the Uniform Property & Casualty Coding Matrix currently utilized by the System for Electronic Rate and Form Filing (SERFF) sponsored by the

National Association of Insurance Commissioners (NAIC).<sup>1</sup> Insurers should use this definition in identifying policies excluded from the Program, as well as for determining policies whose premiums should be subtracted from Line 17—Other Liability on the NAIC Annual Statement when computing direct earned premium for Program purposes. Directors and officers liability insurance, which is sometimes considered a type of professional liability insurance, is not included in the definition as discussed in the next section.

What is the effect of adding the definition of "directors and officers liability insurance" to the definition of "property and casualty insurance" in section 102(12) of the Act?

The explicit addition of this type of insurance to section 102(12) does not substantively modify the previous definition of property and casualty insurance under the Act, but is a statutory clarification that directors and officers liability insurance is distinct from professional liability insurance. Premium for directors and officers liability insurance is already included in Line 17—Other Liability on the NAIC Annual Statement, one of the commercial lines of business under Treasury's previous regulations defining property and casualty insurance (31 CFR 50.5(l)). Treasury recommends that insurers consult the definition of "Directors & Officers Liability" found in the Uniform Property & Casualty Coding Matrix now being utilized by SERFF if further guidance is needed on what constitutes "Directors & Officers Liability".

#### *C. Program Trigger for Federal Share/Certification of Act of Terrorism*

How does the Program Trigger for the Federal share of compensation work and how does it coordinate with the Secretary's certification of an act of terrorism?

The Extension Act adds a new section 103(e)(1)(B) to TRIA entitled "Program Trigger." This new provision directs the Secretary not to compensate insurers under the Program unless the aggregate industry insured losses from a certified act of terrorism exceed certain insured loss or "trigger" amounts.<sup>2</sup>

<sup>1</sup> The Matrix can be found on the NAIC Web site at [http://www.naic.org/industry\\_home.htm](http://www.naic.org/industry_home.htm).

<sup>2</sup> Section 103(e)(1)(B) states: "In the case of a certified act of terrorism occurring after March 31, 2006, no compensation shall be paid by the Secretary under subsection (a), unless the aggregate industry insured losses resulting from such certified act of terrorism exceed—(i) \$50,000,000, with respect to such insured losses occurring in Program

The Extension Act has essentially introduced the concept of a "Program Trigger event" to TRIA. A "Program Trigger event" is a certified act of terrorism occurring after March 31, 2006 in which the aggregate industry insured losses resulting from the event exceed the applicable trigger amount (\$50 million in 2006 and \$100 million in 2007).

The new Program Trigger provision does not apply to acts of terrorism occurring on or before March 31, 2006. The Trigger will apply to such acts that occur after March 31, 2006. Note that the application of the Trigger is based on the date of occurrence and not the date of certification of an act of terrorism. For example, the Program Trigger shall not apply to an act that occurs prior to March 31, 2006, but which is later certified after March 31.

After March 31, unless an act of terrorism is a Program Trigger event, insured losses from that act of terrorism will not be considered in any determination of or calculation leading to any Federal share of compensation under the Act.

Treasury is considering whether further rulemaking or guidance is necessary to address issues associated with the new Program Trigger, including whether any adjustments are necessary to reflect the potential

Year 4; or (ii) \$100,000,000, with respect to such insured losses occurring in Program Year 5."

difference between acts that are certified under the Program and not eligible for compensation and acts that are certified and eligible for compensation under the Program. In terms of TRIA's "make available" requirement contained in section 103(c) and Subpart C of the regulations, insurers should continue to make coverage available for insured losses, although further consideration of issues posed by the new Program Trigger could affect this requirement on a going forward basis.

What losses of an insurer count towards satisfaction of the insurer deductible and how will the Federal share of compensation be determined?

In Program Year 4, only an insurer's insured losses resulting from certified acts of terrorism occurring between January 1 and March 31, 2006, and the insurer's insured losses resulting from Program Trigger events after March 31, will count towards satisfaction of the insurer deductible. Pursuant to section 103(e)(1)(A) of the Act, the Federal share of compensation will be based on 90 percent of the amount of such insured losses in excess of the insurer deductible.

In Program Year 5, only an insurer's insured losses resulting from Program Trigger events occurring in that year will count towards satisfaction of the insurer deductible. Again, pursuant to section 103(e)(1)(A), the Federal share of

compensation will be based on 85 percent of the amount of such insured losses in excess of the insurer deductible.

Treasury will be issuing forms changes and issuing further guidance and rulemaking as necessary to accomplish this compensation payment scheme.

How will Treasury determine and notify insurers that the Program Trigger has been met?

The manner in which Treasury determines whether the Program Trigger has been met will be similar to the process for determining aggregate insured loss amounts in connection with the certification of an act of terrorism. Treasury would contact industry statistical reporting agencies and others to ascertain aggregate industry insured losses. Once the Program Trigger amount has been exceeded, Treasury would notify insurers through press release, notice in the **Federal Register** and postings on the TRIP Web site. This determination may be concurrent with the certification of the act of terrorism.

Dated: December 29, 2005.

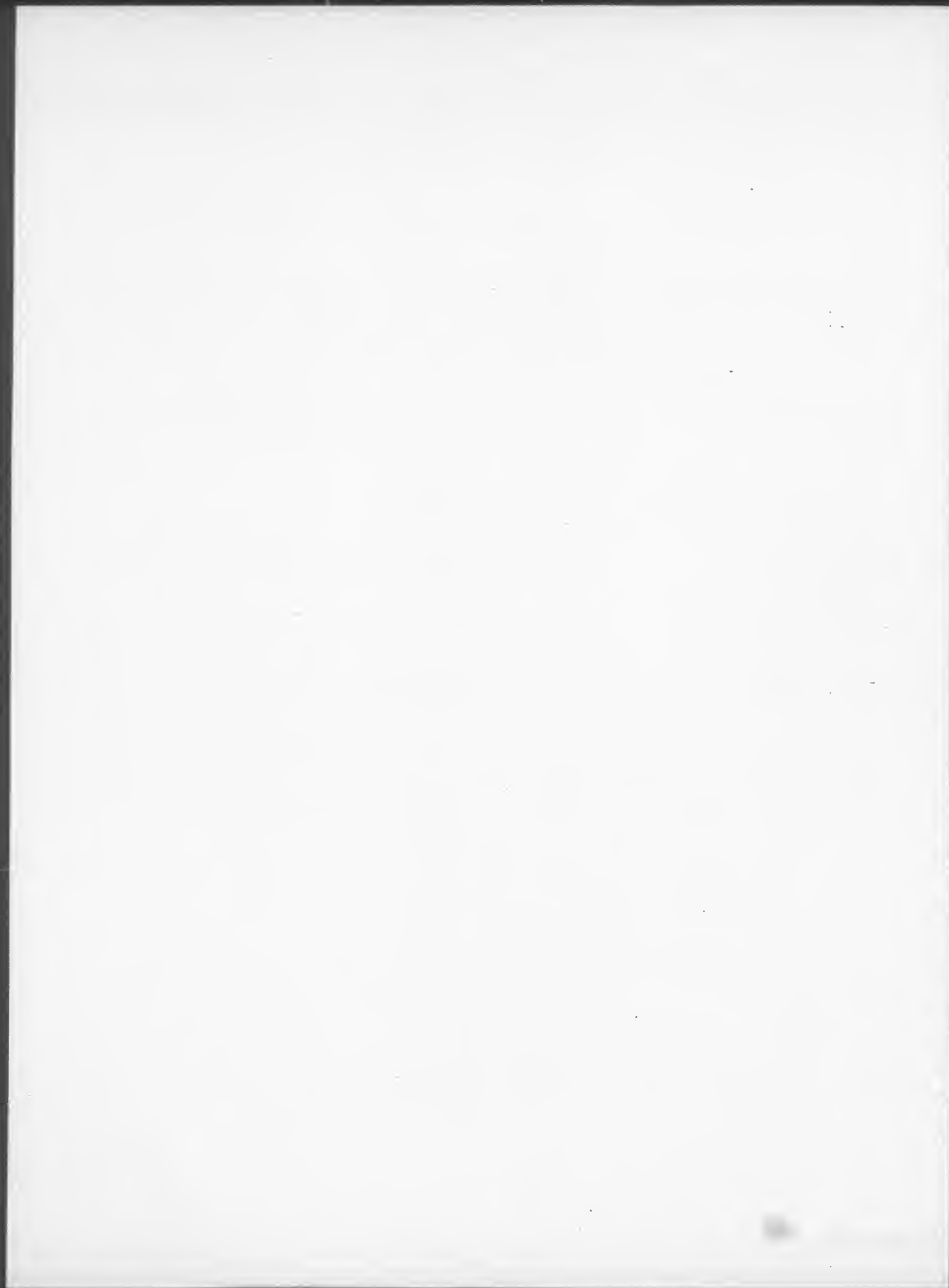
**Howard Leikin,**

*Deputy Director, Terrorism Risk Insurance Program.*

[FR Doc. E5-8281 Filed 1-4-06; 8:45 am]

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# Federal Register

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Thursday,  
January 5, 2006

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Part II

## Environmental Protection Agency

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40 CFR Parts 9, 141, and 142  
National Primary Drinking Water  
Regulations: Long Term 2 Enhanced  
Surface Water Treatment Rule; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**
**40 CFR Parts 9, 141, and 142**
**[EPA-HQ-OW-2002-0039; FRL-8013-1]**
**RIN 2040-AD37**
**National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule**
**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating National Primary Drinking Water Regulations that require the use of treatment techniques, along with monitoring, reporting, and public notification requirements, for all public water systems that use surface water sources. The purposes of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) are to protect public health from illness due to Cryptosporidium and other microbial pathogens in drinking water and to address risk-risk trade-offs with the control of disinfection byproducts.

Key provisions in the LT2ESWTR include the following: source water monitoring for Cryptosporidium, with a screening procedure to reduce monitoring costs for small systems; risk-targeted Cryptosporidium treatment by filtered systems with the highest source water Cryptosporidium levels; inactivation of Cryptosporidium by all unfiltered systems; criteria for the use of Cryptosporidium treatment and control

processes; and covering or treating uncovered finished water storage facilities.

EPA believes that implementation of the LT2ESWTR will significantly reduce levels of infectious Cryptosporidium in finished drinking water. This will substantially lower rates of endemic cryptosporidiosis, the illness caused by Cryptosporidium, which can be severe and sometimes fatal in sensitive subpopulations (e.g., infants, people with weakened immune systems). In addition, the treatment technique requirements of this regulation will increase protection against other microbial pathogens like *Giardia lamblia*.

**DATES:** This final rule is effective on March 6, 2006. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of March 6, 2006. For judicial review purposes, this final rule is promulgated as of January 5, 2006.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-OW-2002-0039. All documents in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) Web site. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are

available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Water Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426.

**FOR FURTHER INFORMATION CONTACT:** Daniel C. Schmelling, Standards and Risk Management Division, Office of Ground Water and Drinking Water (MC 4607M), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 564-5281; fax number: (202) 564-3767; e-mail address: [schmelling.dan@epa.gov](mailto:schmelling.dan@epa.gov). For general information, contact the Safe Drinking Water Hotline, telephone number: (800) 426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding legal holidays, from 9 a.m. to 5 p.m., Eastern time.

**SUPPLEMENTARY INFORMATION:**
**I. General Information**
**A. Who Is Regulated by This Action?**

Entities potentially regulated by the LT2ESWTR are public water systems (PWSs) that use surface water or ground water under the direct influence of surface water (GWUDI). Regulated categories and entities are identified in the following chart.

Category	Examples of regulated entities
Industry .....	Public Water Systems that use surface water or ground water under the direct influence of surface water.
State, Local, Tribal or Federal Governments .....	Public Water Systems that use surface water or ground water under the direct influence of surface water.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in this table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the definition of public water system in § 141.3 of Title 40 of the Code of Federal Regulations and applicability criteria in § 141.700(b) of today's rule. If you have questions regarding the applicability of the LT2ESWTR to a particular entity, consult one of the persons listed in the

preceding section entitled **FOR FURTHER INFORMATION CONTACT.**

**Abbreviations Used in This Document**

ASTM American Society for Testing and Materials  
 AWWA American Water Works Association  
 °C Degrees Centigrade  
 CDC Centers for Disease Control and Prevention  
 CFE Combined Filter Effluent  
 CFR Code of Federal Regulations  
 COI Cost-of-Illness  
 CT The Residual Concentration of Disinfectant (mg/L) Multiplied by the Contact Time (in minutes)  
 CWS Community Water Systems  
 DAPI 4',6-Diamidino-2-phenylindole  
 DBPs Disinfection Byproducts

DBPR Disinfectants/Disinfection Byproducts Rule  
 DE Diatomaceous Earth  
 DIC Differential Interference Contrast (microscopy)  
 EA Economic Analysis  
 EPA United States Environmental Protection Agency  
 GAC Granular Activated Carbon  
 GWUDI Ground Water Under the Direct Influence of Surface Water  
 HAA5 Five Haloacetic Acids (Monochloroacetic, Dichloroacetic, Trichloroacetic, Monobromoacetic and Dibromoacetic Acids)  
 ICR Information Collection Rule (also Information Collection Request)  
 ICSS Information Collection Rule Supplemental Surveys

ICRSSM Information Collection Rule Supplemental Survey of Medium Systems  
 ICRSSL Information Collection Rule Supplemental Survey of Large Systems  
 IESWTR Interim Enhanced Surface Water Treatment Rule  
 Log Logarithm (common, base 10)  
 LRAA Locational Running Annual Average  
 LRV Log Removal Value  
 LT1ESWTR Long Term 1 Enhanced Surface Water Treatment Rule  
 LT2ESWTR Long Term 2 Enhanced Surface Water Treatment Rule  
 MCL Maximum Contaminant Level  
 MCLG Maximum Contaminant Level Goal  
 MG Million Gallons  
 M-DBP Microbial and Disinfectants/Disinfection Byproducts  
 MF Microfiltration  
 NPDWR National Primary Drinking Water Regulation  
 NTTAA National Technology Transfer and Advancement Act  
 NTU Nephelometric Turbidity Unit  
 OMB Office of Management and Budget  
 PE Performance Evaluation  
 PWS Public Water System  
 QC Quality Control  
 QCRV Quality Control Release Value  
 RAA Running Annual Average  
 RFA Regulatory Flexibility Act  
 RO Reverse Osmosis  
 SAB Science Advisory Board  
 SBAR Small Business Advocacy Review  
 SDWA Safe Drinking Water Act  
 SWAP Source Water Assessment Program  
 SWTR Surface Water Treatment Rule  
 TCR Total Coliform Rule  
 TTHM Total Trihalomethanes  
 UF Ultrafiltration  
 UMRA Unfunded Mandates Reform Act

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## II. Summary of the Final Rule

### A. Why Is EPA Promulgating the LT2ESWTR?

EPA is promulgating the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) to further protect public health against Cryptosporidium and other microbial pathogens in drinking water. Cryptosporidium is a protozoan parasite that is common in surface water used as drinking water sources by public water systems (PWSs). In drinking water, Cryptosporidium is a particular concern because it is highly resistant to chemical disinfectants like chlorine. When ingested, Cryptosporidium can cause acute gastrointestinal illness, which may be severe and sometimes fatal for people with weakened immune systems. Cryptosporidium has been identified as the cause of a number of waterborne disease outbreaks in the United States (details in section III.C).

The LT2ESWTR supplements existing microbial treatment regulations and targets PWSs with higher potential risk from Cryptosporidium. Existing regulations require most PWSs using surface water sources to filter the water, and those PWSs that are required to filter must remove at least 99 percent (2-log) of the Cryptosporidium (details in section III.B). As explained in the proposal for today's rule (68 FR 47640, August 11, 2003) (USEPA 2003a), new data on the occurrence, infectivity, and treatment of Cryptosporidium in drinking water indicate that existing regulations are sufficient for most PWSs. A subset of PWSs with greater vulnerability to Cryptosporidium, however, requires additional treatment.

In particular, recent national survey data show that the level of Cryptosporidium in the sources of most filtered PWSs is lower than previously estimated, but also that Cryptosporidium levels vary widely from source to source. Accordingly, a subset of filtered PWSs has relatively high levels of source water Cryptosporidium contamination. In addition, data from human health studies indicate that the potential for Cryptosporidium to cause infection is likely greater than previously recognized (details in section III.E). These findings have led EPA to conclude that existing requirements do not provide adequate public health protection in filtered PWSs with the highest source water Cryptosporidium levels. Consequently, EPA is establishing risk-targeted additional treatment requirements for such filtered PWSs under the LT2ESWTR.



For PWSs that use surface water sources and are not required to filter (i.e., unfiltered PWSs), existing regulations do not require any treatment for *Cryptosporidium*. New survey data suggest that typical *Cryptosporidium* levels in the treated water of unfiltered PWSs are higher than in the treated water of filtered PWSs (USEPA 2003a). Thus, *Cryptosporidium* treatment by unfiltered PWSs is needed to achieve comparable public health protection (details in section III.E). Further, results from recent treatment studies have allowed EPA to develop standards for the inactivation of *Cryptosporidium* by ozone, ultraviolet (UV) light, and chlorine dioxide (details in section IV.D). Based on these developments, EPA is establishing requirements under the LT2ESWTR for all unfiltered PWSs to treat for *Cryptosporidium*, with the required degree of treatment depending on the source water contamination level.

Additionally, the LT2ESWTR addresses risks in uncovered finished water storage facilities, in which treated water can be subject to significant contamination as a result of runoff, bird and animal wastes, human activity, algal growth, insects, fish, and airborne deposition (details in section IV.F). Existing regulations prohibit the building of new uncovered finished water storage facilities but do not deal with existing ones. Under the LT2ESWTR, PWSs must limit potential risks by covering or treating the discharge of such storage facilities.

Most of the requirements in today's final LT2ESWTR reflect consensus recommendations from the Stage 2 Microbial and Disinfection Byproducts (M-DBP) Federal Advisory Committee. These recommendations are set forth in the Stage 2 M-DBP Agreement in Principle (65 FR 83015, December 29, 2000) (USEPA 2000a).

#### *B. What Does the LT2ESWTR Require?*

##### **1. Source Water Monitoring**

The LT2ESWTR requires PWSs using surface water or ground water under the direct influence (GWUDI) of surface water to monitor their source water (i.e., the influent water entering the treatment plant) to determine an average *Cryptosporidium* level. As described in the next section, monitoring results determine the extent of *Cryptosporidium* treatment requirements under the LT2ESWTR.

Large PWSs (serving at least 10,000 people) must monitor for *Cryptosporidium* (plus *E. coli* and turbidity in filtered PWSs) for a period of two years. To reduce monitoring

costs, small filtered PWSs (serving fewer than 10,000 people) initially monitor just for *E. coli* for one year as a screening analysis and are required to monitor for *Cryptosporidium* only if their *E. coli* levels exceed specified "trigger" values. Small filtered PWSs that exceed the *E. coli* trigger, as well as all small unfiltered PWSs, must monitor for *Cryptosporidium* for one or two years, depending on the sampling frequency (details sections IV.A).

Under the LT2ESWTR, specific criteria are set for sampling frequency and schedule, sampling location, using previously collected data (i.e., grandfathering), providing treatment instead of monitoring, sampling by PWSs that use surface water for only part of the year, and monitoring of new plants and sources (details in section IV.A). The LT2ESWTR also establishes requirements for reporting of monitoring results (details in section IV.I), using analytical methods (details in section IV.J), and using approved laboratories (details in section IV.K).

The date for PWSs to begin monitoring is staggered by PWS size, with smaller PWSs starting at a later time than larger ones (details in section IV.G). Today's rule also requires a second round of monitoring to begin approximately 6.5 years after the first round concludes in order to determine if source water quality has changed to a degree that should affect treatment requirements (details in section IV.A).

##### **2. Additional Treatment for *Cryptosporidium***

The LT2ESWTR establishes risk-targeted treatment technique requirements to control *Cryptosporidium* in PWSs using surface water or GWUDI. These treatment requirements supplement those established by existing regulations, all of which remain in effect under the LT2ESWTR.

Filtered PWSs will be classified in one of four treatment categories (or "bins") based on the results of the source water *Cryptosporidium* monitoring described in the previous section. This bin classification determines the degree of additional *Cryptosporidium* treatment, if any, the filtered PWS must provide. Occurrence data indicate that the majority of filtered PWSs will be classified in Bin 1, which carries no additional treatment requirements. PWSs classified in Bins 2, 3, or 4 must achieve 1.0- to 2.5-log of treatment (i.e., 90 to 99.7 percent reduction) for *Cryptosporidium* over and above that provided with conventional treatment. Different additional treatment requirements may

apply to PWSs using other than conventional treatment, such as direct filtration, membranes, or cartridge filters (details in section IV.B). Filtered PWSs must meet the additional *Cryptosporidium* treatment required in Bins 2, 3, or 4 by using one or more treatment or control processes from a "microbial toolbox" of options (details in section IV.D).

The LT2ESWTR requires all unfiltered PWSs to provide at least 2-log (i.e., 99 percent) inactivation of *Cryptosporidium*. If the average source water *Cryptosporidium* level exceeds 0.01 oocysts/L based on the monitoring described in the previous section, the unfiltered PWS must provide at least 3-log (i.e., 99.9 percent) inactivation of *Cryptosporidium*. Further, under the LT2ESWTR, unfiltered PWSs must achieve their overall inactivation requirements (including *Giardia lamblia* and virus inactivation as established by earlier regulations) using a minimum of two disinfectants (details in section IV.C).

##### **3. Uncovered Finished Water Storage Facilities**

Under the LT2ESWTR, PWSs with uncovered finished water storage facilities must take steps to address contamination risks. Existing regulations require PWSs to cover all new storage facilities for finished water but do not address existing uncovered finished water storage facilities. Under the LT2ESWTR, PWSs using uncovered finished water storage facilities must either cover the storage facility or treat the storage facility discharge to achieve inactivation and/or removal of 4-log virus, 3-log *Giardia lamblia*, and 2-log *Cryptosporidium* on a State-approved schedule (details in section IV.F).

##### *C. Will This Regulation Apply to My Water System?*

The LT2ESWTR applies to all PWSs using surface water or GWUDI, including both large and small PWSs, community and non-community PWSs, and non-transient and transient PWSs. Wholesale PWSs must comply with the requirements of today's rule based on the population of the largest PWS in the combined distribution system. Consecutive PWSs that purchase treated water from wholesale PWSs that fully comply with the monitoring and treatment requirements of the LT2ESWTR are not required to take additional steps for that water under today's rule.

### **III. Background Information**

The sections in this part provide summary background information for

today's final LT2ESWTR. Individual sections address the following topics: (A) Statutory requirements and legal authority for the LT2ESWTR; (B) existing regulations for microbial pathogens in drinking water; (C) the problem with *Cryptosporidium* in drinking water; (D) specific public health concerns addressed by the LT2ESWTR; (E) new information for *Cryptosporidium* risk management in PWSs; and (F) recommendations from the Stage 2 M-DBP Advisory Committee for the LT2ESWTR. For additional information on these topics, see the proposed LT2ESWTR (USEPA 2003a) and supporting technical material where cited.

#### A. Statutory Requirements and Legal Authority

The Safe Drinking Water Act (SDWA or the Act), as amended in 1996, requires EPA to publish a maximum contaminant level goal (MCLG) and promulgate a national primary drinking water regulation (NPDWR) with enforceable requirements for any contaminant that the Administrator determines may have an adverse effect on the health of persons, is known to occur or has a substantial likelihood of occurring in public water systems (PWSs) with a frequency and at levels of public health concern, and for which, in the sole judgement of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by PWSs (section 1412(b)(1)(A)).

MCLGs are non-enforceable health goals and are to be set at a level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety (sections 1412(b)(4) and 1412(a)(3)). EPA established an MCLG of zero for *Cryptosporidium* under the Interim Enhanced Surface Water Treatment Rule (IESWTR) (63 FR 69478, December 16, 1998) (USEPA 1998a). In today's rule, the Agency is not making any changes to the current MCLG for *Cryptosporidium*.

The Act also requires each NPDWR for which an MCLG is established to specify a maximum contaminant level (MCL) that is as close to the MCLG as is feasible (sections 1412(b)(4) and 1401(1)(C)). The Agency is authorized to promulgate an NPDWR that requires the use of a treatment technique in lieu of establishing an MCL if the Agency finds that it is not economically or technologically feasible to ascertain the level of the contaminant (sections 1412(b)(7)(A) and 1401(1)(C)). The Act specifies that in such cases, the Agency

shall identify those treatment techniques that would prevent known or anticipated adverse effects on the health of persons to the extent feasible (section 1412(b)(7)(A)).

The Agency has concluded that it is not currently economically or technologically feasible for PWSs to determine the level of *Cryptosporidium* in finished drinking water for the purpose of compliance with a finished water standard. As described in section IV.C, the LT2ESWTR is designed to protect public health by lowering the level of infectious *Cryptosporidium* in finished drinking water to less than 1 oocyst/10,000 L. Approved *Cryptosporidium* analytical methods, which are described in section IV.K, are not sufficient to routinely determine the level of *Cryptosporidium* at this concentration. Consequently, the LT2ESWTR relies on treatment technique requirements to reduce health risks from *Cryptosporidium* in PWSs.

When proposing an NPDWR that includes an MCL or treatment technique, the Act requires EPA to publish and seek public comment on an analysis of health risk reduction and costs. This includes an analysis of quantifiable and nonquantifiable costs and health risk reduction benefits, incremental costs and benefits of each alternative considered, the effects of the contaminant upon sensitive subpopulations (e.g., infants, children, pregnant women, the elderly, and individuals with a history of serious illness), any increased risk that may occur as the result of compliance, and other relevant factors (section 1412(b)(3)(C)). EPA's analysis of health benefits and costs associated with the LT2ESWTR is presented in the Economic Analysis of the LT2ESWTR (USEPA 2005a) and is summarized in section VI of this preamble. The Act does not, however, authorize the Administrator to use a determination of whether benefits justify costs to establish an MCL or treatment technique requirement for the control of *Cryptosporidium* (section 1412(b)(6)(C)).

Finally, section 1412(b)(2)(C) of the Act requires EPA to promulgate a Stage 2 Disinfectants and Disinfection Byproducts Rule within 18 months after promulgation of the LT1ESWTR, which occurred on January 14, 2002. Consistent with statutory requirements for risk balancing (section 1412(b)(5)(B)), EPA is finalizing the LT2ESWTR in conjunction with the Stage 2 DBPR to ensure parallel protection from microbial and DBP risks.

#### B. Existing Regulations for Microbial Pathogens in Drinking Water

This section summarizes existing rules that regulate treatment for pathogenic microorganisms by PWSs using surface water sources. The LT2ESWTR supplements these rules with additional risk-targeted requirements, but does not withdraw any existing requirements.

##### 1. Surface Water Treatment Rule

The Surface Water Treatment Rule (SWTR) (54 FR 27486, June 29, 1989) (USEPA 1989a) applies to all PWSs using surface water or ground water under the direct influence (GWUDI) of surface water as sources (i.e., Subpart H PWSs). It established MCLGs of zero for *Giardia lamblia*, viruses, and *Legionella*, and includes the following treatment technique requirements to reduce exposure to pathogenic microorganisms: (1) Filtration, unless specific avoidance criteria are met; (2) maintenance of a disinfectant residual in the distribution system; (3) removal and/or inactivation of 3-log (99.9%) of *Giardia lamblia* and 4-log (99.99%) of viruses; (4) maximum allowable turbidity in the combined filter effluent (CFE) of 5 nephelometric turbidity units (NTU) and 95th percentile CFE turbidity of 0.5 NTU or less for plants using conventional treatment or direct filtration (with different standards for other filtration technologies); and (5) watershed protection and source water quality requirements for unfiltered PWSs.

##### 2. Total Coliform Rule

The Total Coliform Rule (TCR) (54 FR 27544, June 29, 1989) (USEPA 1989b) applies to all PWSs. It established an MCLG of zero for total and fecal coliform bacteria and an MCL based on the percentage of positive samples collected during a compliance period. Coliforms are used as an indicator of fecal contamination and to determine the integrity of the water treatment process and distribution system. Under the TCR, no more than 5 percent of distribution system samples collected in any month may contain coliform bacteria (no more than 1 sample per month may be coliform positive in those PWSs that collect fewer than 40 samples per month). The number of samples to be collected in a month is based on the number of people served by the PWS.

##### 3. Interim Enhanced Surface Water Treatment Rule

The Interim Enhanced Surface Water Treatment Rule (IESWTR) (63 FR 69478, December 16, 1998) (USEPA 1998a) applies to PWSs serving at least 10,000 people and using surface water or

GWUDI sources. Key provisions established by the IESWTR include the following: (1) An MCLG of zero for *Cryptosporidium*; (2) *Cryptosporidium* removal requirements of 2-log (99 percent) for PWSs that filter; (3) more stringent CFE turbidity performance standards of 1.0 NTU as a maximum and 0.3 NTU or less at the 95th percentile monthly for treatment plants using conventional treatment or direct filtration; (4) requirements for individual filter turbidity monitoring; (5) disinfection benchmark provisions to assess the level of microbial protection that PWSs provide as they take steps to comply with new DBP standards; (6) inclusion of *Cryptosporidium* in the definition of GWUDI and in the watershed control requirements for unfiltered PWSs; (7) requirements for covers on new finished water storage facilities; and (8) sanitary surveys for all surface water systems regardless of size.

The IESWTR was developed in conjunction with the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) (63 FR 69389, December 16, 1998) (USEPA 1998b), which reduced allowable levels of certain DBPs, including trihalomethanes, haloacetic acids, chlorite, and bromate.

#### 4. Long Term 1 Enhanced Surface Water Treatment Rule

The Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) (67 FR 1812, January 14, 2002) (USEPA 2002a) builds upon the microbial control provisions established by the IESWTR for large PWSs through extending similar requirements to small PWSs. The LT1ESWTR applies to PWSs that use surface water or GWUDI as sources and that serve fewer than 10,000 people. Like the IESWTR, the LT1ESWTR established the following: 2-log (99 percent) *Cryptosporidium* removal requirements by PWSs that filter; individual filter turbidity monitoring and more stringent combined filter effluent turbidity standards for conventional and direct filtration plants; disinfection profiling and benchmarking; inclusion of *Cryptosporidium* in the definition of GWUDI and in the watershed control requirements for unfiltered PWSs; and the requirement that new finished water storage facilities be covered.

#### 5. Filter Backwash Recycle Rule

The Filter Backwash Recycling Rule (FBRR) (66 FR 31085, June 8, 2001) (USEPA 2001a) requires PWSs to consider the potential risks associated with recycling contaminants removed during the filtration process. The

provisions of the FBRR apply to all PWSs that recycle, regardless of population served. In general, the provisions include the following: (1) PWSs must return certain recycle streams to a point in the treatment process that is prior to primary coagulant addition unless the State specifies an alternative location; (2) direct filtration PWSs recycling to the treatment process must provide detailed recycle treatment information to the State; and (3) certain conventional PWSs that practice direct recycling must perform a one-month, one-time recycling self assessment.

#### C. Concern With *Cryptosporidium* in Drinking Water

##### 1. Introduction

EPA is promulgating the LT2ESWTR to reduce the public health risk associated with *Cryptosporidium* in drinking water. This section describes the general basis for this public health concern through reviewing information in several areas: the nature of *Cryptosporidium*, health effects, efficacy of water treatment processes, and the incidence of epidemic and endemic disease. Further information about *Cryptosporidium* is available in the following documents: *Cryptosporidium*: Human Health Criteria Document (USEPA 2001b), *Cryptosporidium*: Drinking Water Advisory (USEPA 2001c), and *Cryptosporidium*: Risks for Infants and Children (USEPA 2001d).

##### 2. What Is *Cryptosporidium*?

*Cryptosporidium* is a protozoan parasite that lives and reproduces entirely in one host. Ingestion of *Cryptosporidium* can cause cryptosporidiosis, a gastrointestinal (GI) illness. *Cryptosporidium* is excreted in feces. Transmission of cryptosporidiosis occurs through consumption of water or food contaminated with feces or by direct or indirect contact with infected persons or animals (Casemore 1990).

In the environment, *Cryptosporidium* is present as a thick-walled oocyst containing four organisms (sporozoites); the oocyst wall insulates the sporozoites from harsh environmental conditions. Oocysts are 4–5 microns in length and width. Upon a host's ingestion of oocysts, enzymes and chemicals produced by the host's digestive system cause the oocyst to excyst, or break open. The excysted sporozoites embed themselves in the surfaces of the epithelial cells of the lower small intestine. The organisms then begin absorbing nutrients from their host cells. When these organisms sexually reproduce, they produce thick- and

thin-walled oocysts. The host excretes the thick-walled oocysts in its feces; thin-walled oocysts excyst within the host and contribute to further host infection.

The exact mechanism by which *Cryptosporidium* causes GI illness is not known. Factors may include damage to intestinal structure and cells, changes in the absorption/secretion processes of the intestine, toxins produced by *Cryptosporidium* or the host, and proteins that allow *Cryptosporidium* to adhere to host cell surfaces (Carey et al. 2004).

Upon excretion, *Cryptosporidium* oocysts may survive for months in various environmental media, including soil, river water, seawater, and human and cattle feces at ambient temperatures (Kato et al. 2001, Pokorny et al. 2002, Fayer et al. 1998a and 1998b, and Robertson et al. 1992). *Cryptosporidium* can also withstand temperatures as low as  $-20^{\circ}\text{C}$  for periods of a few hours (Fayer and Nerad 1996) but are susceptible to desiccation (Robertson et al. 1992).

*Cryptosporidium* is a widespread contaminant in surface water used as drinking water supplies. For example, among 67 drinking water sources surveyed by LeChevallier and Norton (1995), 87 percent had positive samples for *Cryptosporidium*. A more recent survey of 80 medium and large PWSs conducted by EPA detected *Cryptosporidium* in 85 percent of water sources (USEPA 2003a).

*Cryptosporidium* contamination can come from animal agriculture, wastewater treatment plant discharges, slaughterhouses, birds, wild animals, and other sources of fecal matter.

Because different species of *Cryptosporidium* are very similar in morphology, researchers have focused on genetic differences in trying to classify them. However, discussion on *Cryptosporidium* taxonomy is complicated by the fact that even within species or strains, there may be differences in infectivity and virulence. *Cryptosporidium parvum* (*C. parvum*) has been the primary species of concern to humans. Until recently, some researchers divided *C. parvum* into two primary strains, genotype 1, which infects humans, and genotype 2, which infects both humans and cattle (Carey et al. 2004). In 2002, Morgan-Ryan et al. proposed that genotype 1 be designated a separate species, *C. hominis*. Additional *Cryptosporidium* species infecting other mammals, birds, and reptiles have been documented. In some cases, these species can infect both immunocompromised (having weakened immune systems) and

otherwise healthy humans (Carey et al. 2004).

### 3. Cryptosporidium Health Effects

Cryptosporidium infection is characterized by mild to severe diarrhea, dehydration, stomach cramps, and/or a slight fever. Incubation is thought to range from 2 to 10 days (Arrowood 1997). Symptoms typically last from several days to 2 weeks, though in a small percentage of cases, the symptoms may persist for months or longer in otherwise healthy individuals.

Symptoms may be more severe in immunocompromised persons (Frisby et al. 1997, Carey et al. 2004). Such persons include those with AIDS, cancer patients undergoing chemotherapy, organ transplant recipients treated with drugs that suppress the immune system, and patients with autoimmune disorders (e.g., Lupus). In AIDS patients, Cryptosporidium has been found in the lungs, ear, stomach, bile duct, and pancreas in addition to the small intestine (Farthing 2000).

Immunocompromised patients with severe persistent cryptosporidiosis may die (Carey et al. 2004). Besides the immunocompromised, children and the elderly may be at higher risk from Cryptosporidium than the general population (discussed in section VII.G).

Studies with human volunteers have demonstrated that a low dose of *C. parvum* (e.g., 10 oocysts) is sufficient to cause infection in healthy adults, although some strains are more infectious than others (DuPont et al. 1995, Chappell et al. 1999, Okhuysen et al. 2002). Studies of immunosuppressed adult mice have demonstrated that a single viable oocyst can induce *C. parvum* infections (Yang et al. 2000, Okhuysen et al. 2002). The lowest dose tested in any of the human challenge studies was 10 oocysts. Because drinking water exposures are generally projected to be at lower levels (e.g., 1 oocyst), statistical modeling is necessary to project the effects of such exposure. Following the advice of its Science Advisory Board (SAB), EPA has developed a range of models to predict effects of exposure to low doses of Cryptosporidium. These models are discussed in section VI and in the LT2ESWTR Economic Analysis (USEPA 2005a).

The degree and duration of the immune response to Cryptosporidium is not well characterized. In a study by Chappell et al. (1999), volunteers with IgG Cryptosporidium antibodies in their blood were immune to low doses of oocysts. The ID50 (the dose that infects 50 percent of the challenged population)

was 1,880 oocysts for those individuals compared to 132 oocysts for individuals that tested negative for those antibodies. However, earlier studies did not observe a correlation between the development of antibodies after Cryptosporidium infection and subsequent protection from illness (Okhuysen et al. 1998).

No cure for cryptosporidiosis is known. Medical care usually involves treatment for dehydration and nutrient loss. Certain antimicrobial drugs like Azithromycin, Paromomycin, and nitazoxanide, the only drug approved for cryptosporidiosis in children, have been partially effective in treating immunocompromised patients (Rossignol et al. 1998). Therapies used to treat retroviruses can be helpful in fighting cryptosporidiosis in people with AIDS and are more effective when used in conjunction with antimicrobial therapy. The effectiveness of antiretroviral therapy is thought to be related to the associated increase in white blood cells rather than the decrease in the amount of virus present.

### 4. Efficacy of Water Treatment Processes on Cryptosporidium

EPA is particularly concerned about Cryptosporidium because, unlike pathogens such as bacteria and most viruses, Cryptosporidium oocysts are highly resistant to standard disinfectants like chlorine and chloramines (Korich et al. 1990, Ransome et al. 1993, Finch et al. 1997). Consequently, control of Cryptosporidium in most treatment plants is dependent on physical removal processes. However, due to their size (4–5 microns), oocysts can sometimes pass through filters.

Monitoring data on finished water show that Cryptosporidium is sometimes present in filtered, treated drinking water (LeChevallier et al. 1991, Aboytes et al. 2004). For example, Aboytes et al. (2004) analyzed 1,690 finished water samples from 82 plants. Of these, 22 plants had at least one positive sample for infectious Cryptosporidium (1.4 percent of all samples were positive). All positive samples occurred at plants that met existing regulatory standards and many had very low turbidity.

Waterborne outbreaks of cryptosporidiosis have occurred even in areas served by filtered surface water supplies (Solo-Gabriele and Neumeister, 1996). In some cases, outbreaks were attributed to treatment deficiencies, but in others, the treatment provided by the water system met the regulatory requirements in place at that time. These data indicate that even surface water systems that filter and disinfect

can still be vulnerable to Cryptosporidium, depending on the source water quality and treatment effectiveness.

Certain alternative disinfectants can be more effective in treating for Cryptosporidium. Both ozone and chlorine dioxide have been shown to inactivate Cryptosporidium, albeit at doses much higher than those required to inactivate Giardia, which has typically been used to set disinfectant doses (summarized in USEPA 2003a). Studies have also demonstrated a synergistic effect of treatment using ozone followed by chlorine or monochloramine (Rennecker et al. 2000, Driedger et al. 2001). Significantly, UV light has recently been shown to achieve high levels of Cryptosporidium inactivation at feasible doses (summarized in USEPA 2003a).

Other processes that can help reduce Cryptosporidium levels in finished water include watershed management programs, pretreatment processes like bank filtration, and additional clarification and filtration processes during water treatment. Further, optimizing treatment performance and achieving very low levels of turbidity in the finished water has been shown to improve Cryptosporidium removal in treatment plants (summarized in USEPA 2003a).

### 5. Epidemic and Endemic Disease From Cryptosporidium

Cryptosporidium has caused a number of waterborne disease outbreaks since 1984 when the first was reported in the United States. Data from the Centers for Disease Control and Prevention (CDC) include ten outbreaks caused by Cryptosporidium in drinking water between 1984 and 2000, with approximately 421,000 cases of illness (CDC 1993, 1996, 1998, 2000, and 2002). The most serious outbreak occurred in 1993 in Milwaukee; an estimated 403,000 people became sick (MacKenzie et al. 1994), and at least 50 Cryptosporidium-associated deaths occurred among the severely immunocompromised (Hoxie et al. 1997). Further, a study by McDonald et al. (2001) using blood samples from Milwaukee children suggests that Cryptosporidium infection was more widespread than might be inferred from the illness estimates by MacKenzie et al. (1994).

The number of identified and reported outbreaks in the CDC database is believed to substantially understate the actual incidence of waterborne disease outbreaks and cases (Craun and Calderon 1996, National Research Council 1997). This under reporting is



due to a number of factors. Many people experiencing gastrointestinal illness do not seek medical attention. Where medical attention is provided, the pathogenic agent may not be identified through routine testing. Physicians and patients often lack sufficient information to attribute gastrointestinal illness to any specific origin, such as drinking water, and few States have an active outbreak surveillance program. In addition, if drinking water is investigated as the source of an outbreak, oocysts may not be detected in water samples even if they are present, due to limitations in analytical methods. Consequently, outbreaks may not be recognized in a community or, if recognized, may not be traced to a drinking water source.

In addition, an unknown but probably significant portion of waterborne disease is endemic (i.e., isolated cases not associated with an outbreak) and, thus, is even more difficult to recognize. In an outbreak, if the pathogen has been identified, medical providers and public health investigators know what to look for. In endemic disease, there is no investigation, so the illness may never be identified, or if it is, it may not be linked to a source (e.g., drinking water, person-to-person transmission). In addition, where a pathogen is identified, lab results may not be reported to public health agencies.

Because of this under reporting, the actual incidence of cryptosporidiosis associated with drinking water is unknown. However, indications of this incidence rate can be roughly extrapolated from different sources. Mead et al. (1999) estimated approximately 300,000 total cases of cryptosporidiosis annually that result in a physician visit, with 90 percent of these attributed to waterborne (drinking water and recreational water) and secondary transmission. This estimate is based on the percentage of stools that test positive for *Cryptosporidium* and applying this percentage to the approximately 15 million physician visits for diarrhea each year. While the fraction of cryptosporidiosis cases that result in a physician visit is unknown, Corso et al. (2003) reported that during the 1993 outbreak in Milwaukee, medical care was sought in approximately 12 percent of all cryptosporidiosis cases.

Surveillance data from the CDC for 2001 show an overall incidence of 1.5 laboratory diagnosed cases of cryptosporidiosis per 100,000 population (CDC, 2002). Although the fraction of all cryptosporidiosis cases that are laboratory confirmed is unknown, during the 1993 Milwaukee

outbreak, 739 cases from an estimated 403,000 cases total were confirmed by a laboratory (MacKenzie et al., 1994). These data indicate a ratio of 1 laboratory confirmed case per 545 people estimated to be ill with cryptosporidiosis.

A few studies have attempted to determine exposure in certain areas by measuring seroprevalence of *Cryptosporidium* antibodies (the frequency at which antibodies are found in the blood). Detection of such antibodies (seropositivity), however, does not mean that the person actually experienced symptoms of cryptosporidiosis. An individual can be asymptotically infected and still excrete oocysts. Seroprevalence, though, is still a method for estimating the exposure to *Cryptosporidium* that has occurred within a limited time period (the antibodies may last only a few months).

Frost et al. (2001) conducted a paired city study, in which the serological response of blood donors in a city using ground water as its water source was compared to that of donors in a city using surface water as its source. Rates of seropositivity were higher (49 vs. 36 percent) in the city with the surface water source. A similar study in two other cities (Frost et al. 2002) showed a seropositivity rate of 54 percent in the city served by surface water compared to 38 percent in the city served by ground water. These studies suggest that drinking water from surface sources may be a factor in the higher rates of seropositivity.

#### *D. Specific Concerns Following the IESWTR and LT1ESWTR*

In the LT2ESWTR, EPA is addressing a number of public health concerns that remain following implementation of the IESWTR and LT1ESWTR. These are as follows:

- The need for filtered PWSs with higher levels of source water *Cryptosporidium* contamination to provide additional risk-based treatment for *Cryptosporidium* beyond IESWTR or LT1ESWTR requirements;
- The need for unfiltered PWSs to provide risk-based treatment for *Cryptosporidium* to achieve equivalent public health protection with filtered PWSs; and
- The need for PWSs with uncovered finished water storage facilities to take steps to reduce the risk of contamination of treated water prior to distribution to consumers.

EPA and stakeholders identified each of these issues as public health concerns during development of the IESWTR (USEPA 1994, 1997). However, the

Agency was unable to address these concerns in those regulations due to data gaps in the areas of health effects, occurrence, analytical methods, and treatment. Consequently, EPA followed a two-stage strategy for microbial and disinfection byproducts rules. Under this strategy, the IESWTR and LT1ESWTR were promulgated to provide an initial improvement in public health protection in large and small PWSs, respectively, while additional data to support a more comprehensive regulatory approach were collected.

Since promulgating the IESWTR and LT1ESWTR, EPA has worked with stakeholders to collect and analyze significant new information to fill data gaps related to *Cryptosporidium* risk management in PWSs. The next section presents EPA's evaluation of these data and their implications for both the risk of *Cryptosporidium* in filtered and unfiltered PWSs and the feasibility of steps to limit this risk. In addition, the Agency has evaluated additional data related to mitigating risks with uncovered finished water storage facilities, which are presented in section IV.F.

#### *E. New Information on Cryptosporidium Risk Management*

EPA and stakeholders determined during development of the IESWTR that in order to establish risk-based treatment requirements for *Cryptosporidium*, additional information was needed in the following areas: (1) The risk associated with a given level of *Cryptosporidium* (i.e., infectivity); (2) the occurrence of *Cryptosporidium* in PWS sources; (3) analytical methods that would suffice for making site-specific source water *Cryptosporidium* density estimates; and (4) the use of treatment technologies to achieve specific levels of *Cryptosporidium* disinfection (USEPA 1997).

In today's final LT2ESWTR, EPA is promulgating risk-based *Cryptosporidium* treatment requirements for filtered and unfiltered PWSs. The Agency believes that the critical data gaps in the areas of infectivity, occurrence, analytical methods, and treatment that prevented the adoption of such an approach under earlier regulations have been addressed. The new information that the Agency and stakeholders evaluated in each of these areas and its significance for today's LT2ESWTR are summarized as follows. See section VI.L for a summary of public comments on EPA's use of *Cryptosporidium* infectivity and



occurrence data in assessing benefits of the LT2ESWTR.

### 1. Infectivity

Infectivity relates the probability of infection to the number of *Cryptosporidium* oocysts that a person ingests. It is used to predict the disease burden associated with a particular *Cryptosporidium* level in drinking water. Information on *Cryptosporidium* infectivity comes from dose-response studies where healthy human volunteers ingest different numbers of oocysts (i.e., the "dose") and are subsequently evaluated for signs of infection and illness (i.e., the "response").

Prior to the IESWTR, data from a human dose-response study of one *Cryptosporidium* isolate (IOWA) had been published (DuPont et al. 1995). Following IESWTR promulgation, a study of two additional isolates (TAMU and UCP) was completed and published (Okhuysen et al. 1999). This 1999 study also reanalyzed the IOWA study results. The measured infectivity of *Cryptosporidium* oocysts varied over a wide range in the Okhuysen et al. (1999) study. The UCP oocysts were much less infective than the IOWA oocysts, and the TAMU oocysts were much more infective.

EPA analyzed these new data for the proposed LT2ESWTR using two different dose-response models. This analysis suggested that the overall infectivity of *Cryptosporidium* is greater than was estimated for the IESWTR (USEPA 2003a). Specifically, EPA estimated the mean probability of infection from ingesting a single infectious oocyst ranges from 7 to 10 percent. This infection rate is approximately 20 times higher than the estimate of 0.4 percent used in the IESWTR.

Since the publication of the proposed LT2ESWTR, EPA has evaluated three additional studies of *Cryptosporidium* infectivity. EPA also received a recommendation from the SAB that it analyze *Cryptosporidium* infectivity data using a wider range of models. Accordingly, EPA re-estimated *Cryptosporidium* infectivity using the new data and six different dose-response models, including the two models used at proposal. Estimates from the new data and models for the probability of infection from ingesting a single infectious oocyst range from 4 to 16 percent. A detailed discussion of the models and their varying assumptions is provided in the LT2ESWTR Economic Analysis (USEPA 2005a).

As is apparent from these results, substantial uncertainty about the

infectivity of *Cryptosporidium* remains in several areas. These include the variability in host susceptibility, response at very low oocyst doses typical of drinking water ingestion, and the relative infectivity and occurrence of different *Cryptosporidium* isolates in the environment. To address this uncertainty, EPA conducted its health risk reduction and benefits analyses using a representative range of model results. In the summary tables for these analyses, three sets of estimates are presented: A "high" estimate based on the model that showed the highest mean baseline risk; a "medium" estimate, based on the models and data used at proposal, which also happens to be in the middle of the range of estimates produced by the six models using the newly available data; and a "low" estimate, based on the model that showed the lowest mean baseline risk.

These estimates should not be construed as upper and lower bounds on illnesses avoided and benefits. For each model, a distribution of effects is estimated, and the "high" and "low" estimates show only the means of these distributions for two different model choices. The detailed distribution of effects is presented for the proposal model in the Economic Analysis (USEPA 2005a). Further, the six dose-response models used in this analysis do not cover all possible variations of models that might have been used with the data, and it is possible that estimates with other models would fall outside the range presented. However, as discussed in the Economic Analysis, EPA believes that the models used in the analyses reflect a reasonable range of results based on important dimensions of model choice.

Regardless of which model is chosen, the available infectivity data suggest that the risk associated with a given concentration of *Cryptosporidium* is most likely higher than EPA had estimated for the IESWTR. This finding supports the need for increased treatment for *Cryptosporidium* as required under the LT2ESWTR.

### 2. Occurrence

Information on the occurrence of *Cryptosporidium* oocysts in drinking water sources is a critical parameter for assessing risk and the need for additional treatment for this pathogen. For the IESWTR, EPA had no national survey data on *Cryptosporidium* occurrence and relied instead on several studies that were local or regional. After promulgating the IESWTR, EPA obtained data from two national surveys, the Information Collection Rule (ICR) and the ICR Supplemental Surveys

(ICRSS), which were designed to provide improved estimates of occurrence on a national basis.

The ICR included monthly sampling for *Cryptosporidium* and other water quality parameters from the sources of approximately 350 large PWSs over 18 months. The ICRSS involved twice-per-month *Cryptosporidium* sampling from the sources of a statistically random sample of 40 large and 40 medium PWSs over 12 months. In addition, the ICRSS required the use of an improved analytical method for *Cryptosporidium* analysis that had a higher method recovery (the likelihood that an oocyst present in the sample will be counted) and enhanced sample preparation procedures.

EPA analyzed ICR and ICRSS data using a statistical model to account for factors like method recovery and sample volume analyzed. As described in more detail in EPA's Occurrence and Exposure Assessment for the LT2ESWTR (USEPA 2005b), the ICR and ICRSS results demonstrate two main differences for filtered PWSs in comparison to *Cryptosporidium* occurrence data used for the IESWTR:

(1) The occurrence of *Cryptosporidium* in many drinking water sources is lower than was indicated by the data used in IESWTR. For example, median *Cryptosporidium* levels for the ICR and ICRSS data are approximately 0.05/L, which is nearly 50 times lower than the median IESWTR estimates of 2.3 oocysts/L (USEPA 1998a).

(2) *Cryptosporidium* occurrence is more variable from location to location than was shown by the data considered for the IESWTR. This finding demonstrates that, although median occurrence levels are below those estimated for the IESWTR, a subset of PWSs contains *Cryptosporidium* levels that are considerably greater than the median.

These results, therefore, indicate that *Cryptosporidium* levels are relatively low in most water sources, but a subset of sources with relatively higher concentrations may require additional treatment. These findings support a risk-targeted approach for the LT2ESWTR wherein additional *Cryptosporidium* treatment is required only for filtered PWSs with the highest source water pathogen levels.

Only the ICR provided data to evaluate *Cryptosporidium* occurrence in unfiltered PWS sources. The median *Cryptosporidium* level among unfiltered PWS sources was 0.0079 oocysts/L. This level is approximately 10 times lower than the median level for filtered PWS sources.

When the *Cryptosporidium* removal that filtered PWSs achieve is taken into account, these occurrence data suggest that unfiltered PWSs typically have

higher concentrations of *Cryptosporidium* in their treated water than filtered PWSs. EPA has estimated that on average, conventional filtration plants remove around 99.9 percent (3-log) of the *Cryptosporidium* present in the source water. Most unfiltered PWSs, however, provide no treatment for *Cryptosporidium*. If an unfiltered PWS had a source water *Cryptosporidium* level 10 times lower than a filtered PWS and the filtered PWS achieved 3-log *Cryptosporidium* removal, then the *Cryptosporidium* level in the treated water of the unfiltered PWS would be 100 times higher than in the filtered PWS.

These results suggest that to achieve public health protection equivalent to that provided by filtered PWSs, unfiltered PWSs must take additional steps. Thus, this finding supports the need for *Cryptosporidium* treatment requirements for unfiltered PWSs under the LT2ESWTR.

### 3. Analytical Methods

To establish risk-targeted treatment requirements, analytical methods must be available to estimate the contaminant densities in PWS sources. These density estimates are used to determine the level of treatment that is needed at a particular site.

When EPA developed the IESWTR, the best available method for measuring *Cryptosporidium* was the Information Collection Rule Protozoan Method (ICR Method). The ICR Method provided a quantitative measurement of *Cryptosporidium* oocysts, but typically undercounted the actual occurrence due to low method recovery. For example, in a spiking study (studies in which known quantities of oocysts are added to water samples) conducted during the ICR survey, the mean recovery of spiked *Cryptosporidium* oocysts was only 12 percent (Scheller et al. 2002). EPA concluded that the ICR Method was adequate for making national occurrence estimates in the ICR survey but would not suffice for making estimates of *Cryptosporidium* levels at specific sites.

Subsequent to promulgating the IESWTR, EPA developed an improved *Cryptosporidium* method, EPA Method 1622 (and later, 1623), to achieve higher recovery rates and lower inter- and intra-laboratory variability than previous methods. Methods 1622 and 1623 incorporate improvements in the concentration, separation, staining, and microscope examination procedures. During the ICRSS, which required the use of Method 1622 or 1623, a spiking study demonstrated a mean *Cryptosporidium* recovery of 43 percent

(Connell et al. 2000). Thus, mean *Cryptosporidium* recovery with Methods 1622 and 1623 was more than 3.5 times higher compared to the ICR Method performance in the earlier spiking study. In addition, the relative variation in recovery from sample to sample was lower with Methods 1622 and 1623.

As described in section IV of this preamble, EPA has concluded that a monitoring program using Methods 1622 or 1623 can be effective in characterizing PWSs source water *Cryptosporidium* levels for purposes of determining the need for additional treatment requirements. This finding supports the feasibility of risk-targeted treatment requirements under the LT2ESWTR.

### 4. Treatment

To establish risk-targeted *Cryptosporidium* treatment requirements, feasible treatment processes must be available that allow PWSs to inactivate or remove *Cryptosporidium*. PWSs may then implement these treatment processes to comply with additional treatment requirements.

During development of the IESWTR, EPA recognized that chlorine, the most commonly used disinfectant, is ineffective for inactivating *Cryptosporidium*. Studies suggested that other disinfectants like ozone and chlorine dioxide could be effective against *Cryptosporidium*. However, EPA concluded that data available at that time were not sufficient to define how any disinfectant could be applied to achieve a specific level of *Cryptosporidium* inactivation (USEPA 1997). This conclusion was due in part to methodological inconsistencies and shortcomings in the available studies.

With the completion of major studies since promulgation of the IESWTR, EPA has acquired the data necessary to establish standards for *Cryptosporidium* inactivation by several disinfectants. For ozone and chlorine dioxide, EPA reviewed new studies by Rennecker et al. (1999), Owens et al. (1999, 2000), Oppenheimer et al. (2000), Ruffell et al. (2000), and Li et al. (2001). Collectively, these studies cover a wide range of both natural and laboratory water conditions. Based on these studies, EPA has developed tables that specify the product of ozone or chlorine dioxide concentration and time of exposure (i.e., CT tables) needed to achieve up to 3-log *Cryptosporidium* inactivation. Section IV.D of this preamble shows these tables.

Most significantly, many recent studies have demonstrated that UV light

is efficient for inactivating high levels of *Cryptosporidium*. These studies include Clancy et al. (1998, 2000, 2002), Bukhari et al. (1999), Craik et al. (2000, 2001), Landis et al. (2000), Sommer et al. (2001), Shin et al. (2001), and Oppenheimer et al. (2002). Using results from these studies, EPA has defined the UV light intensity and exposure time required for up to 4-log *Cryptosporidium* inactivation. Section IV.D presents these values. EPA has determined that UV light is a feasible technology for PWSs of all sizes to inactivate *Cryptosporidium*.

EPA has also developed standards for processes that physically remove *Cryptosporidium* contamination. These processes include river bank filtration, sedimentation basins, bag filters, cartridge filters, and membranes. Section IV.D presents design and operational standards for these processes, along with a summary of supporting studies.

The development of these standards for *Cryptosporidium* inactivation and removal processes overcomes a significant limitation that existed when EPA developed the IESWTR. These standards will allow PWSs to implement cost-effective strategies to comply with additional *Cryptosporidium* treatment requirements under the LT2ESWTR.

### F. Federal Advisory Committee Recommendations

EPA convened the Stage 2 M-DBP Federal Advisory Committee in March 1999 to evaluate new information and develop recommendations for the LT2ESWTR and Stage 2 DBPR. The Committee was comprised of representatives from EPA, State and local public health and regulatory agencies, local elected officials, Indian Tribes, drinking water suppliers, chemical and equipment manufacturers, and public interest groups. A technical workgroup provided analytical support for the Committee's discussions.

Committee members signed an Agreement in Principle in September 2000 stating consensus recommendations of the group. The Agreement was published in a December 29, 2000 Federal Register notice (USEPA 2000a). For the LT2ESWTR, the consensus recommendations of the Committee are summarized as follows:

- (1) Supplemental risk-targeted *Cryptosporidium* treatment by filtered PWSs with higher source water contaminant levels as shown by monitoring results;
- (2) *Cryptosporidium* inactivation by all unfiltered PWSs, which must meet

overall treatment requirements using a minimum of 2 disinfectants;

(3) A "toolbox" of treatment and control processes for PWSs to comply with *Cryptosporidium* treatment requirements;

(4) Reduced monitoring burden for small filtered PWSs;

(5) Future monitoring to confirm or revise source water quality assessments;

(6) Development of guidance for UV disinfection and other toolbox components; and

(7) Cover or treat existing uncovered finished water reservoirs (i.e., storage facilities) or implement risk mitigation plans.

These recommendations reflect a Committee judgement that, based on available information, additional risk-based *Cryptosporidium* treatment requirements for filtered and unfiltered PWSs are appropriate and feasible under the LT2ESWTR. Much of today's final LT2ESWTR reflects the Committee's recommendations. The next part of this preamble describes specific requirements of the rule.

#### IV. Explanation of Today's Action

##### A. Source Water Monitoring Requirements

Today's rule requires PWSs using surface water or GWUDI sources to monitor their source water to assess the level of *Cryptosporidium*. Monitoring results assign a PWS to a *Cryptosporidium* treatment bin, which determines the extent of additional *Cryptosporidium* treatment requirements (sections IV.B and IV.C described treatment requirements for filtered and unfiltered PWSs, respectively).

Source water monitoring under the LT2ESWTR is designed to ascertain the mean level of *Cryptosporidium* in the influent to a surface water treatment plant. Requirements differ by PWS size (above or below 10,000 people served) and treatment plant type (filtered or unfiltered PWS). This section describes monitoring requirements for sampling parameters and frequency, sampling location, sampling schedule, monitoring plants that operate only part of the year, failing to monitor, providing treatment instead of monitoring, grandfathering previously collected data, ongoing watershed assessment, second round of monitoring, and new source monitoring.

Other sections of this preamble describe additional requirements related to monitoring, including compliance schedules (section IV.G), reporting of monitoring results (section IV.I), use of approved analytical methods, including minimum sample volume (section IV.J),

and use of approved laboratories (section IV.K). As described in section IV.G, monitoring compliance dates under the LT2ESWTR are staggered: smaller PWSs begin monitoring after larger PWSs.

For additional information, see Source Water Monitoring Guidance Manual for Public Water Systems under the Long Term 2 Enhanced Surface Water Treatment Rule. This document provides guidance on sampling location, procedures for collecting and shipping samples, contracting with laboratories, and related topics to assist PWSs in complying with LT2ESWTR monitoring requirements. It may be acquired from EPA's Safe Drinking Water Hotline, which can be contacted as described under **FOR FURTHER INFORMATION CONTACT** at the beginning of this document.

##### 1. Today's Rule

a. *Sampling parameters and frequency.* Requirements for the source water parameters that PWSs must measure under the LT2ESWTR, as well as the sampling frequency and duration, are stated as follows for large and small PWSs, including both filtered and unfiltered plants:

###### *Large Filtered PWSs*

Filtered PWSs serving at least 10,000 people must sample at least monthly for *Cryptosporidium*, *E. coli*, and turbidity for a period of two years. Sampling may be conducted at a higher frequency (e.g., twice-per-month, once-per-week) but the sampling must be evenly spaced throughout the monitoring period. As described in section IV.B, filtered PWSs that sample at least twice-per-month over two years use a different calculation, which is less conservative, to determine their treatment bin classification under the LT2ESWTR.

###### *Large Unfiltered PWSs*

Unfiltered PWSs serving at least 10,000 people must also sample for *Cryptosporidium* at least monthly for a period of 2 years. No *E. coli* or turbidity monitoring is required for unfiltered PWSs. Unfiltered PWSs may choose to sample more frequently; however, as described in section IV.C, a higher sampling frequency does not change the calculation used to determine unfiltered PWS *Cryptosporidium* treatment requirements.

###### *Small Filtered PWSs*

Filtered PWSs serving fewer than 10,000 people (i.e., small PWSs) monitor under the LT2ESWTR using a two-phase strategy that begins with an indicator screening analysis. Small

filtered PWSs must initially sample for *E. coli* at least once every two weeks for a period of one year. *Cryptosporidium* monitoring is required of these PWSs only if the indicator monitoring results meet one of the following conditions:

(1) For PWSs using lake/reservoir sources, the annual mean *E. coli* concentration is greater than 10 *E. coli*/100 mL.

(2) For PWSs using flowing stream sources, the annual mean *E. coli* concentration is greater than 50 *E. coli*/100 mL.

PWSs using ground water under the direct influence of surface water must comply with the requirement to monitor for *Cryptosporidium* based on the *E. coli* level that applies to the nearest surface water body. If no surface water body is nearby, the PWS must comply based on the requirements that apply to PWSs using lake/reservoir sources.

The State may approve small filtered PWSs to monitor for an indicator other than *E. coli*. The State also may approve an alternative *E. coli* concentration to trigger *Cryptosporidium* monitoring. This approval must be in writing and must be based on a State determination that the alternative indicator and/or trigger level will more accurately identify whether a PWS will exceed the Bin 1 *Cryptosporidium* level of 0.075 oocysts/L, as stated in section IV.B.1 of this preamble. EPA will issue guidance to States on alternative indicators and trigger levels, if warranted, based on large PWS monitoring results.

Small filtered PWSs may elect to skip *E. coli* monitoring if they notify the State that they will monitor for *Cryptosporidium*. PWSs must notify the State no later than three months prior to the date the PWS is required to begin monitoring (see section IV.G for specific dates).

Small filtered PWSs that are required to monitor for *Cryptosporidium* must conduct this monitoring using either of two frequencies: (1) Sample at least twice-per-month for a period of one year or (2) sample at least once-per-month for a period of two years. Note that the same treatment compliance dates apply to the PWS regardless of which *Cryptosporidium* sampling frequency is used (i.e., selecting the two-year *Cryptosporidium* sampling frequency does not extend *Cryptosporidium* treatment compliance deadlines).

###### *Small Unfiltered PWSs*

All unfiltered PWSs serving fewer than 10,000 people must monitor for *Cryptosporidium*. The *E. coli* screening analysis used by small filtered PWSs is not applicable to small unfiltered PWSs. Small unfiltered PWSs must use either

of the same two *Cryptosporidium* sampling frequencies available to small filtered PWSs: (1) Sample twice-per-month for one year or (2) sample once-per-month for two years. As with small filtered PWSs, the same treatment compliance dates apply to the PWS regardless of which *Cryptosporidium* sampling frequency is used.

b. *Sampling location.* PWSs must collect source water samples for each plant that treats a surface water or GWUDI source. However, where multiple plants receive all of their water from the same influent, such as plants that draw water from the same intake or pipe, the State may approve one set of monitoring results to be applied to all plants.

PWSs must collect source water samples prior to chemical treatment, such as coagulants, oxidants, and disinfectants, unless the following condition is met: The State may approve a system to collect a sample after chemical treatment if the State determines that collecting a sample prior to chemical treatment is not feasible and that the chemical treatment is unlikely to have a significant adverse effect on the analysis of the sample. PWSs that recycle filter backwash must collect samples prior to the point of filter backwash addition due to the likely presence of coagulant and other treatment chemicals in the backwash. See section IV.D.6 for directions on sampling location for PWSs using bank filtration.

For plants that use multiple water sources at the same time, PWSs must collect samples from a tap where the sources are combined prior to treatment, if available. If a blended source tap is not available, PWSs must collect samples from each source and either analyze a weighted composite (blended) sample or analyze samples from each source separately and determine a weighted average of the results. The weighting of sources must reflect the relative usage of the different sources by the treatment plant at the time the sample is collected.

PWSs must submit a description of their proposed sampling location(s) to the State no later than three months prior to the date the PWS must begin monitoring (see section IV.G for specific dates). This description must address the position of the sampling location in relation to the PWS's water source(s) and treatment processes, including points of chemical addition and filter backwash recycle. If the State does not respond to a PWS regarding sampling location(s), the PWS must begin sampling at the reported location. See Source Water Monitoring Guidance

Manual for Public Water Systems under the Long Term 2 Enhanced Surface Water Treatment Rule, which can be acquired as stated previously, for guidance on sampling location descriptions.

c. *Sampling schedule.* PWSs must collect samples in accordance with a schedule that the PWS develops and reports prior to initiating monitoring. The sampling schedule must specify the calendar dates when the PWS will collect each required sample in a particular round of monitoring. Scheduled sampling dates must be evenly distributed throughout the monitoring period, but may be arranged to accommodate holidays, weekends, and other events when collecting or analyzing a sample would be problematic (e.g., a PWS is not required to schedule samples on the same calendar date each month).

PWSs must submit sampling schedules no later than three months prior to the date the PWS must begin a round of monitoring (see section IV.G for specific dates). Unless the State approves an alternative procedure, large PWSs (serving at least 10,000 people) must report their sampling schedule for initial source water monitoring to EPA using the LT2ESWTR electronic data reporting and review system described in section IV.I. Schedules for initial monitoring by small PWSs and for the second round of monitoring by all PWSs must be reported to the State. PWSs should verify that their laboratory can accommodate the scheduled sampling dates before submitting the schedule.

EPA will not formally approve sampling schedules but will notify a PWS if its sampling schedules does not meet the requirements of today's rule (e.g., does not include the required number of samples). If a PWS does not receive notification from the State or EPA regarding the sampling schedule, the PWS must begin monitoring according to the reported sampling schedule.

PWSs must collect samples within two days before or two days after the dates indicated in their sampling schedules (i.e., within a 5-day period around the schedule date) unless one of the following two conditions applies:

(1) If an extreme condition or situation exists that may pose danger to the sample collector, or that cannot be avoided and causes the PWS to be unable to sample in the scheduled 5-day period, the PWS must sample as close to the scheduled date as is feasible unless the State approves an alternative sampling date. The PWS must submit an explanation for the delayed sampling date to the State concurrent with the

shipment of the samples to the laboratory.

(2) If a PWS is unable to report a valid analytical result for a scheduled sampling date due to equipment failure, loss of or damage to the sample, failure to comply with the analytical method requirements, or the failure of an approved laboratory to analyze the sample, then the PWS must collect a replacement sample. Collection of the replacement sample must occur within 21 days of the PWS receiving information that an analytical result cannot be reported for the scheduled date unless the PWS demonstrates that collecting a replacement sample within this time frame is not feasible or the State approves an alternative resampling date. The PWS must submit an explanation for the resampling date to the State concurrent with the shipment of the sample to the laboratory.

Failure to collect a required sample within the 5-day period around a scheduled date that does not meet one of these two conditions is a monitoring violation. PWSs must revise their sampling schedules to add dates for collecting all missed samples and must submit the revised schedule to the State for approval prior to when the PWS begins collecting the missed samples.

d. *Plants operating only part of the year.* Some PWSs operate surface water treatment plants for only part of the year. This includes PWSs that provide water for only a fraction of the year (e.g., resorts open only in the summer) and PWSs that use a surface water plant to supplement another source only during periods of high demand.

Most LT2ESWTR monitoring, treatment, and implementation schedule requirements apply to such plants. Monitoring requirements, however, differ in two respects:

(1) PWSs must conduct sampling only during months of the 2 year monitoring period when the plant operates unless the State specifies another monitoring period based on plant operating practices; and

(2) For plants that operate less than six months per year and where *Cryptosporidium* monitoring is required, PWSs must collect at least six *Cryptosporidium* samples per year during each of two years of monitoring.

e. *Failing to monitor.* Today's rule requires PWSs to provide a Tier 3 public notice for violation of monitoring and testing procedure requirements, including the failure to collect one or two source water *Cryptosporidium* samples. If a PWS fails to collect three or more *Cryptosporidium* samples, other than in specifically exempted situations (see section IV.A.1.c), the PWS must



provide a Tier 2 special public notice. Violations for failing to monitor persist until the State determines that the PWS has begun sampling on a revised schedule that includes dates for the collection of missed samples. Section IV.H provides further details on public notice requirements of the LT2ESWTR.

PWSs must report their bin classification (or mean Cryptosporidium level for unfiltered PWSs) no later than six months after the end of the scheduled monitoring period (specific dates in section IV.G). Failure by a PWS to collect the required number of Cryptosporidium samples to report its bin classification or mean Cryptosporidium level by the compliance date is a treatment technique violation and the PWS must provide a Tier 2 special public notice (unless the PWS has already provided a Tier 2 public notice for missing three sampling dates and is successfully meeting a State-approved schedule for sampling). The treatment technique violation and public notice requirements persist until the State determines that the PWS is implementing a State-approved monitoring plan to allow bin classification or will install the highest level of treatment required under the rule, as described next.

*f. Providing treatment instead of monitoring.* PWSs are not required to conduct source water monitoring under the LT2ESWTR for plants that will provide the highest level of treatment required under the rule. This applies both to plants that provide this level of treatment at the time the plant would otherwise begin source water monitoring and to plants that commit to install technology to achieve this level of treatment by the applicable compliance date for meeting Cryptosporidium treatment requirements under the LT2ESWTR.

Filtered PWSs are not required to monitor at plants that will provide a total of at least 5.5-log of treatment for Cryptosporidium, equivalent to meeting the treatment requirements of Bin 4 as discussed in section IV.B. Unfiltered PWSs are not required to monitor for plants that will provide a total of at least 3-log of Cryptosporidium inactivation, equivalent to meeting the treatment requirements for unfiltered PWSs with source water Cryptosporidium levels above 0.01 oocysts/L as discussed in section IV.C.

PWSs that intend to provide this level of treatment rather than initiate monitoring must notify the State no later than three months prior to the month the PWS must otherwise begin monitoring. PWSs submit this

notification in lieu of submitting a sampling schedule. In addition, a PWS may choose to stop sampling at any point after it has initiated monitoring if it notifies the State that it will provide the highest level of treatment. In both cases, the PWSs must install and operate technologies to achieve this level of treatment no later than the applicable Cryptosporidium treatment compliance date for the PWS as specified in section IV.G. Failure to provide this treatment by the compliance date is a treatment technique violation.

*g. Grandfathering previously collected data.* If the State approves, PWSs may comply with the initial source water monitoring requirements of today's rule by using (i.e., grandfathering) sample results collected before the PWS is required to begin monitoring. PWSs may grandfather monitoring results either in lieu of or in addition to conducting new monitoring under the rule. To be eligible for grandfathering, monitoring results must be equivalent in data quality to monitoring PWSs conduct under today's rule and the PWS must comply with reporting requirements. Details of these requirements follow.

#### *Grandfathered Data Quality Requirements*

- Analysis of *E. coli* samples must meet the analytical method and approved laboratory requirements for source water monitoring under today's rule. PWSs are not required to report *E. coli* and turbidity data in order to grandfather Cryptosporidium monitoring results, although EPA requests that PWSs report these data if they are available. PWSs that grandfather Cryptosporidium data without associated *E. coli* and turbidity data are not required to conduct separate monitoring for these parameters when they have satisfied Cryptosporidium monitoring requirements.

- Analysis of Cryptosporidium samples must meet the criteria of a validated version of EPA Method 1622 or 1623, which are described in USEPA 1999a, USEPA 1999b, USEPA 2001e, USEPA 2001f, USEPA 2005c, and USEPA 2005d. The volume analyzed for each sample must meet the criteria described in section IV.J, which are at least 10 L of sample or at least 2 mL of packet pellet volume or as much volume as two approved filters can accommodate before clogging.

- The sampling location must meet the criteria for LT2ESWTR monitoring, as described previously.

- For Cryptosporidium samples, the sampling frequency must be at least

monthly and on a regular schedule. The collection of individual samples may deviate from a regular schedule under the same criteria that apply to deviation from LT2ESWTR sampling schedules, as described previously. Additionally, deviations in the sampling frequency of previously collected data are allowed under the following conditions: (1) PWSs may grandfather data where there are gaps in the sampling frequency if the State approves and if the PWS conducts additional monitoring when specified by the State to ensure the data used for bin classification are seasonally representative and unbiased; and (2) PWSs may grandfather data where the sampling frequency varies (e.g., one year of sampling monthly and one year of sampling twice-per-month); monthly average sample concentrations must be used to calculate the bin classification, as described in section IV.B.

#### *Grandfathered Data Reporting Requirements*

PWSs that request to grandfather previously collected monitoring results must report the following information by the applicable dates listed in this section. PWSs serving at least 10,000 people must report this information to EPA unless the State approves an alternate procedure for reporting. PWSs serving fewer than 10,000 people must report this information to the State.

PWSs must report that they intend to submit previously collected monitoring results for grandfathering. This report must specify the number of previously collected results the PWS will submit, the dates of the first and last sample, and whether a PWS will conduct additional source water monitoring for initial bin classification. PWSs must report this information no later than three months prior to the date the PWSs is required to start monitoring, as shown in section IV.G.

PWSs must report previously collected monitoring results for grandfathering, along with the required documentation listed in this section, no later than two months after the month the PWS is required to start monitoring, as shown in section IV.G.

- For each sample Cryptosporidium or *E. coli* result, PWSs must report the applicable data elements in section IV.I.1.

- PWSs must certify to EPA or the State that the reported monitoring results include all results the PWS generated during the time period beginning with the first reported result and ending with the final reported result. This applies to samples that were collected from the sampling location specified for source water monitoring



under this subpart, not spiked, and analyzed using the laboratory's routine process for the analytical methods listed in this section.

- PWSs must certify to EPA or the State that the samples were representative of a plant's source water(s) and the source water(s) have not changed. PWSs must submit to EPA a description of the sampling location(s) for each water treatment plant, which must address the position of the sampling location in relation to the PWS's water source(s) and treatment processes, including points of chemical addition and filter backwash recycle.

- For Cryptosporidium samples, the laboratory or laboratories that analyzed the samples must provide a letter certifying that the quality control criteria specified in the methods listed in this section were met for each sample batch associated with the reported results. Alternatively, the laboratory may provide bench sheets and sample examination report forms for each field, matrix spike, initial precision and recovery (IPR), ongoing precision and recovery (OPR), and method blank sample associated with the reported results.

- If the State determines that a previously collected data set submitted for grandfathering was generated during source water conditions that were not normal for the PWS, such as a drought, the State may disapprove the data. Alternatively, the State may approve the previously collected data if the PWS reports additional source water monitoring data, as determined by the State, to ensure that the overall data set used for bin classification represents average source water conditions for the PWS.

If a PWS submits previously collected data that fully meet the number of samples required for initial source water monitoring and some of the data are rejected due to not meeting the requirements of this section, PWSs must conduct additional monitoring to replace rejected data on a schedule the State approves. PWSs are not required to begin this additional monitoring until at least two months after notification that data have been rejected and additional monitoring is necessary.

**h. Ongoing watershed assessment.** Today's rule includes provisions to assess changes in a PWS's source water quality following initial bin classification. As required by 40 CFR 142.16(b)(3)(i), source water is one of the components that States must address during the sanitary surveys that are required for surface water PWSs. These sanitary surveys must be conducted every 3 years for community

PWSs and every 5 years for non-community PWSs. Under today's rule, if the State determines during the sanitary survey or an equivalent source water assessment that significant changes have occurred in the watershed that could lead to increased contamination of the source water by Cryptosporidium, the PWS must take actions specified by the State to address the contamination. These actions may include additional source water monitoring and/or implementing options from the microbial toolbox discussed in section IV.D.

**i. Second round of monitoring.** PWSs must begin a second round of source water monitoring beginning six years after initial bin classification (see compliance dates in section IV.G). If EPA does not modify LT2ESWTR requirements by issuing a new regulation prior to the second round of monitoring, PWSs must carry out this monitoring according to the requirements that apply to the initial round of source water monitoring. PWSs will then be reclassified in LT2ESWTR treatment bins based on the second-round monitoring result. However, if EPA changes the LT2ESWTR treatment bin structure to reflect a new analytical method or new risk information, PWSs will undergo a risk characterization in accordance with the revised rule.

**j. New source monitoring.** A PWS that begins using a new surface water source after the date the PWS is required to conduct source water monitoring under the LT2ESWTR must monitor the new source on a schedule approved by the State. This applies to both new plants that begin operation and previously operating plants that bring a new source on-line after the required monitoring date for the PWS. The State may determine that monitoring should be conducted before a new plant or source is brought on-line or initiated within some time period afterward. The new source monitoring must meet all LT2ESWTR requirements as specified previously in this section. The PWS must also determine its treatment bin classification and comply with any additional Cryptosporidium treatment requirements based on the monitoring results on a schedule approved by the State.

## 2. Background and Analysis

Monitoring requirements in today's rule are designed to ascertain Cryptosporidium levels with suitable accuracy for making treatment bin classifications and in a time frame that does not delay the installation of Cryptosporidium treatment where needed. The following discussion

summarizes the basis for monitoring requirements with respect to sampling parameters and frequency, sampling location, sampling schedule, monitoring plants that operate for only part of the year, failing to monitor, grandfathering previously collected data, ongoing watershed assessment, and the second round of monitoring. Most of these requirements were part of the August 11, 2003, proposal for today's final rule, and supporting analyses are presented in greater detail in the proposal (USEPA 2003a). Differences from proposed requirements are noted in the following discussion where applicable.

**a. Sampling parameters and frequency.** The requirements in today's final rule for the parameters and frequency of source water monitoring are unchanged from those in the proposed rule (USEPA 2003a), with the exception of an additional option for lower frequency Cryptosporidium sampling by small PWSs. These requirements reflect recommendations by the Stage 2 M-DBP Advisory Committee. They are designed to ensure a low potential for misclassification in assigning PWSs to Cryptosporidium treatment bins. The supporting analyses are summarized as follows for Cryptosporidium and indicator (*E. coli*) monitoring:

### *Cryptosporidium Monitoring*

EPA analyzed bin misclassification rates for different Cryptosporidium monitoring programs by evaluating the likelihood of two types of errors:

- (1) A PWS with a true mean Cryptosporidium concentration of 0.5-log (i.e., factor of 3.2) above a bin boundary is incorrectly assigned to a lower bin (false negative) and
- (2) A PWS with a true mean concentration of 0.5-log below a bin boundary is incorrectly assigned to a higher bin (false positive).

The first type of error, a false negative, could lead to PWSs not providing an adequate level of treatment while the second type of error, a false positive, could lead to PWSs incurring additional costs for unnecessary treatment.

EPA evaluated false positive and false negative rates for monitoring programs that differed based on the number of samples collected and the calculation used to determine the bin classification. The analysis accounted for the sample volume assayed, variation in source water Cryptosporidium occurrence, variation in analytical method recovery, and other factors.

Results of this analysis indicate that PWSs must collect at least 24 samples in order to keep the likelihood of both false positives and false negatives at five

percent or less. Under a monitoring program involving fewer samples, such as eight or twelve, a very conservative calculation for bin classification would be required to achieve a low false negative rate (e.g., bin classification based on the maximum or second highest sample concentration). However, such an approach would result in false positive rates in the range of 50 to 70 percent. Conversely, collecting more than 24 samples can further reduce false positive and false negative rates, albeit to a small degree. See the proposed LT2ESWTR for additional details on this analysis (USEPA 2003a).

Based on the results of this analysis, EPA concluded that PWSs operating year-round should collect at least 24 samples when they monitor for *Cryptosporidium*. This number of samples ensures a high likelihood of appropriate bin classification. Today's rule does not allow bin classification based on fewer samples (except in the case of PWSs operating only part of the year) as this would involve unacceptably high false positive or false negative rates and would, therefore, be an inappropriate basis to determine *Cryptosporidium* treatment requirements. EPA believes, though, that PWSs should have the choice to collect more than 24 samples to further improve the accuracy of bin classification, and today's rule allows this.

In regard to the time frame for LT2ESWTR monitoring, the Agency considered the trade-off between monitoring over a long period to better capture temporal fluctuations and the desire to prescribe additional treatment quickly to PWSs with higher *Cryptosporidium* levels. Today's rule requires large PWSs to evaluate their source water *Cryptosporidium* levels using two years of monitoring. This will account for some degree of yearly variability, without significantly delaying additional public health protection where needed.

Because many small PWSs will monitor for *E. coli* for one year before monitoring for *Cryptosporidium*, today's rule allows two options. Small PWSs can collect 24 *Cryptosporidium* samples over just one year (resulting in a total of two years of source water monitoring when *E. coli* monitoring is considered) or they can spread their 24 *Cryptosporidium* samples over two years. Spreading the *Cryptosporidium* monitoring over two years will reduce the monitoring costs a PWS incurs in a single year but will not push back the treatment compliance deadline. This allowance for small PWSs to monitor for

*Cryptosporidium* over two years is a change from the proposal (USEPA 2003a). It stems from recognition of the benefit this approach will provide to some small PWSs in budgeting for monitoring.

#### *Indicator Monitoring*

Due to the relatively high cost of analyzing samples for *Cryptosporidium*, the Advisory Committee and EPA investigated indicators that are less costly to analyze to determine if any could be used in place of *Cryptosporidium* monitoring. No indicators were identified that correlated strongly with *Cryptosporidium* and could fully substitute for *Cryptosporidium* monitoring for determining treatment bin classifications. However, this investigation did identify an indicator, *E. coli*, that can be used to identify some of the water sources that are unlikely to exceed a *Cryptosporidium* level of 0.075 oocysts/L—the level at which filtered PWSs must provide additional treatment under the LT2ESWTR.

Data from the ICR and ICRSS were used in the investigation of indicators. With these data, *E. coli* performed the best in identifying sources with low *Cryptosporidium* levels. In addition, analyzing plants separately based on source water type was necessary due to a different relationship between *E. coli* and *Cryptosporidium* in reservoir/lake sources compared to flowing stream sources.

The analysis of *E. coli* concentrations that could trigger *Cryptosporidium* monitoring was based on false negative and false positive rates. For this indicator, false negatives occur when sources do not exceed the *E. coli* trigger value but exceed a *Cryptosporidium* level of 0.075 oocysts/L. False positives occur when sources exceed the *E. coli* trigger value but do not exceed a *Cryptosporidium* level of 0.075 oocysts/L. The false negative rate is critical because it characterizes the ability of the indicator to identify those plants with higher *Cryptosporidium* levels that should conduct *Cryptosporidium* monitoring to determine if additional treatment is needed.

For plants with flowing stream sources, a mean *E. coli* trigger concentration of 50/100 mL produced zero false negatives for both ICR and ICRSS data sets. This means that in these data sets, all plants that exceeded mean *Cryptosporidium* concentrations of 0.075 oocysts/L also exceeded the *E. coli* trigger concentration. The false positive rate for this trigger concentration was near 50 percent, meaning it was not highly specific in

targeting only those plants with high *Cryptosporidium* levels. However, at a higher *E. coli* trigger concentration, such as 100/100 mL, the false negative rate increased without a significant reduction in the false positive rate.

For plants with lake or reservoir sources, a mean *E. coli* trigger of 10/100 mL resulted in a false negative rate of 20 percent with ICR data and 67 percent with ICRSS data. While this false negative rate in the ICRSS data set appears high, it is based on just three plants in this survey that used a reservoir/lake source and had a mean *Cryptosporidium* level above 0.075 oocysts/L. With a lower *E. coli* trigger concentration, such as 5/100 mL, the number of false negatives in both data sets decreased by one plant, but the false positive rate increased from 20 to 40 percent.

After evaluating these results, the Advisory Committee recommended that all large PWSs monitor for *Cryptosporidium*, rather than using *E. coli* in a screening analysis. EPA concurred with this recommendation because it achieves the highest certainty that these PWSs will be classified in the correct *Cryptosporidium* treatment bin and provide the appropriate level of public health protection. In addition, the Advisory Committee recommended and today's rule requires that large filtered PWSs collect *E. coli* and turbidity samples along with *Cryptosporidium*. EPA will use these data to confirm or, if necessary, further refine the use of *E. coli* and possibly turbidity as indicators for monitoring by small filtered PWSs.

*Cryptosporidium* monitoring places a relatively greater economic burden on small PWSs, and EPA will have additional *E. coli* and *Cryptosporidium* data from large PWS monitoring prior to the initiation of small PWS monitoring. Based on these considerations and the available data on *E. coli* as an indicator of sources with lower *Cryptosporidium* levels, the Advisory Committee recommended that small filtered PWSs initially monitor for *E. coli* for one year as a screening analysis. Biweekly sampling (i.e., 1 sample every two weeks) for *E. coli* is required to achieve high confidence in the results, since no additional monitoring is required if the *E. coli* level is less than the trigger value. Mean *E. coli* concentrations above 10 and 50/100 mL trigger *Cryptosporidium* monitoring in PWSs using reservoir/lake and flowing stream sources, respectively.

EPA concurred with these recommendations by the Advisory Committee and believes they achieve an appropriate balance between enhancing

public health protection and reducing the economic impact of today's rule on small PWSs. Survey data indicate that approximately 75 to 80 percent of small PWSs will not exceed the *E. coli* trigger values and, consequently, will not be required to monitor for *Cryptosporidium*. Because *E. coli* is far less costly to analyze than *Cryptosporidium* (costs listed in USEPA 2005a), this approach will significantly reduce the burden of today's rule for these PWSs. Further, EPA will review indicator data from large PWS monitoring and, if appropriate, issue guidance to States on alternative indicator triggers prior to when small PWSs begin monitoring. Today's rule allows States to approve alternative approaches to indicator monitoring for small PWSs.

EPA could not identify an indicator screening analysis for unfiltered PWSs. As described in section IV.C, a mean *Cryptosporidium* concentration of 0.01 oocysts/L determines whether unfiltered PWSs are required to provide 2- or 3-log *Cryptosporidium* inactivation. No *E. coli* concentration was effective in determining whether PWSs were likely to fall above or below this level. Consequently, today's rule requires all unfiltered PWSs to monitor for *Cryptosporidium*, unless they choose to provide 3-log *Cryptosporidium* inactivation.

*b. Sampling location.* The requirements in today's final rule for the source water sample collection location are similar to those in the proposed rule (USEPA 2003a). They are designed to achieve two objectives: (1) Characterize the influent water to the treatment plant at the time each sample is collected and (2) ensure that samples are not affected by treatment chemicals that could interfere with *Cryptosporidium* analysis.

The first objective is the basis for requiring PWSs that use multiple sources to either analyze a blended source sample or calculate a weighted average of sources that reflects the influent at the time of sample collection. It is also the reason that PWSs are required to sample after certain pretreatment processes like bank filtration (described in section IV.D) that do not involve chemical addition.

The second objective is why PWSs are generally required to sample upstream of chemical addition and prior to backwash addition (for PWSs that recycle filter backwash). However, EPA recognizes that in some situations, sampling prior to chemical addition will not be feasible and discontinuing chemical addition for a period of time prior to sampling will not be advisable.

This situation could occur when a treatment chemical is added at an intake that is difficult to access. Further, some treatment chemicals may not interfere with *Cryptosporidium* analyses when present at very low levels. Consequently, today's rule allows States to approve PWSs sampling after chemical addition when the State determines that collection prior to chemical treatment is not feasible and the treatment chemical is not expected to interfere with the analysis of the sample.

EPA believes that States should review source water monitoring locations for their PWSs. State review of monitoring locations will ensure that PWSs collect source water samples at the correct location to determine the appropriate level of public health protection. Consequently, today's rule requires PWSs to report a description of their monitoring location to the State. This requirement is a change from the proposed rule, which did not require PWSs to report a description of their sampling location (USEPA 2003a). This change reflects public comment on the proposal, as described later, which strongly supported State review of monitoring locations. If a PWS does not hear back from the State by the time it is scheduled to begin sampling, it may assume that its monitoring location is acceptable.

*c. Sampling schedule.* The requirement in today's final rule that PWSs must develop a schedule for sample collection before the start of monitoring was part of the proposal (USEPA 2003a). This requirement will help to ensure that monitoring determines the mean concentration of *Cryptosporidium* in the treatment plant influent. To achieve this objective, the timing of sample collection must not be adjusted in response to fluctuations in water quality—for example, the avoidance of sampling when the influent water is expected to be of poor quality.

EPA believes that the 5-day window for sample collection and associated allowances for sampling outside this window provide sufficient flexibility. If circumstances arise that prevent the PWS from sampling within the scheduled 5-day window, such as a weather event or plant emergency, the PWS must collect a sample as soon as feasible. In this case, feasibility includes both the ability of the PWS to safely collect a sample and the availability of an approved laboratory to conduct the analysis within method specifications. In addition, today's rule allows States to authorize a different date for collecting the delayed sample. Such an

authorization may be appropriate in cases where sampling is significantly delayed and collecting the delayed sample during the same time period in the following year of monitoring is preferable.

PWSs that collect a sample as scheduled but are unable to have the sample analyzed as required due to problems like shipping or laboratory analysis must collect a replacement sample within 21 days of receiving information that one is needed, unless the PWS demonstrates that collecting a replacement sample within this time frame is not feasible. This time frame is a minor change from the proposal, which allowed only 14 days for resampling (USEPA 2003a), and it provides greater flexibility for scheduling replacement samples. Information that resampling is needed includes information the PWS acquires directly, as well as notice from the shipping company, laboratory, State, or EPA. Today's rule allows States to authorize an alternative date for collection of the replacement sample. This may be needed for resampling to occur during the same conditions as the originally scheduled sample.

If collecting a sample was feasible but the PWS failed to do so, EPA believes that the PWSs must develop a revised sampling schedule and submit it to the State. This will allow for State consultation regarding the reason for the missed sample(s) and strategies for the PWS to complete the required monitoring.

*d. Plants operating only part of the year.* The proposed LT2ESWTR did not include distinct monitoring requirements for plants that operate only part-year. However, EPA requested comment in the proposal on an approach to plants that operate only part-year that is similar to the requirements in today's final rule (USEPA 2003a).

Monitoring requirements for plants that operate only part-year derive from three considerations: (1) A PWS should sample only during the months when a treatment plant operates; (2) the mean *Cryptosporidium* level used for bin classification can be determined with fewer samples in plants that operate only part-year because source water quality typically varies less during the shorter operating period; and (3) a minimum number of samples is necessary to classify any plant in an LT2ESWTR bin with high confidence.

The basis for the first consideration is straightforward. Source water monitoring under the LT2ESWTR is used to establish treatment requirements, and these should be based

on the water quality when a plant is in operation. The rationale for the second and third considerations stems from analyses, similar to those described previously, of potential misclassification rates in assigning plants to LT2ESWTR treatment bins.

Source water variability is one factor that influences the number of samples needed to accurately classify plants in LT2ESWTR treatment bins. As variability increases, more samples are needed to determine the mean Cryptosporidium level with high confidence. EPA does not have data on source water variability specifically in plants that operate only part-year. However, survey data show that pathogen levels vary seasonally, and plants operating part-year will generally experience less variability during a given year than plants operating year-round. Consequently, fewer samples are typically needed to determine the mean Cryptosporidium level during the period of operation for a part-year plant.

Nevertheless, even when a plant operates for only a few months per year and source water exhibits little variability, a minimum number of samples is necessary for bin classification. This is due to the relatively low sample volume, variable method recovery, nonhomogeneous distribution of Cryptosporidium in water, and other factors that limit the accuracy of any individual sample for characterizing the source water. Data suggest that for plants operating for six months per year or less, collecting a minimum of six samples per year over two years may allow bin classification with comparable accuracy to that achieved by year-round plants sampling monthly (USEPA 2005a).

Based on these considerations, today's rule requires similar source water monitoring for plants that operate only part-year during their months of operation as is required for year-round plants. However, if the plant is required to monitor for Cryptosporidium and operates for six months or less, the PWS must collect at least six Cryptosporidium samples per year over two years.

*e. Failing to monitor.* Requirements for PWSs that fail to conduct source water monitoring are based on the need for PWSs to determine a Cryptosporidium bin classification and provide the appropriate level of public health protection within the compliance time frame. The LT2ESWTR proposal required PWSs that did not complete all source water monitoring requirements to meet the requirements of the highest treatment bin (USEPA 2003a). In today's final rule, EPA has significantly

changed requirements from those in the proposal for PWSs that fail to monitor. These changes are intended to give States more flexibility in working with PWSs to fulfill monitoring requirements and ensure they achieve the appropriate Cryptosporidium treatment level.

For most monitoring and testing procedure violations under the LT2ESWTR, PWSs must provide a Tier 3 public notification, which is standard for this type of violation under an NPDWR. However, if a PWS fails to collect three or more Cryptosporidium samples, the violation is elevated to a Tier 2 special public notice. The reason for elevating the public notice at this point is the persistence of the violation and the difficulty the PWS will have in collecting the required number of samples for bin classification by the compliance date. Section IV.H provides further details on public notice requirements of the LT2ESWTR.

As described in section IV.G, today's rule requires bin classification within six months following the end of the monitoring period specified for the PWS. This six-month period provides some opportunity for collecting and analyzing missed samples. The number of samples that can be made up in this period is limited, though, due to the need for samples to be evenly distributed throughout the year, as well as for PWSs and States to spend time during this period evaluating monitoring results to determine bin classification. In consideration of these factors, EPA believes that elevating the public notice when a PWS has missed three or more Cryptosporidium samples is appropriate. This violation will end when the State determines that the PWS has begun sampling on a schedule to collect the required number of samples.

Failure by a PWS to collect the required number of Cryptosporidium samples for bin classification by the compliance date is a treatment technique violation with a required Tier 2 public notice. This violation reflects the inability of the PWS to determine and comply with its Cryptosporidium treatment requirements under the LT2ESWTR and provide the appropriate level of public health protection. The violation ends when the State determines that the PWS is carrying out a monitoring plan that will lead to bin classification. A PWS that has already provided a Tier 2 public notice for missing three sampling dates and is successfully meeting a State-approved sampling schedule is not required to issue another public notice for missing the bin classification date. Alternatively, the PWS can choose to provide the highest level of Cryptosporidium

treatment required under the rule, which is 5.5-log for filtered PWSs and 3-log for unfiltered PWSs.

*f. Grandfathering previously collected data.* Requirements for grandfathering previously collected monitoring data in today's final rule are similar to those in the proposal (USEPA 2003a). These requirements are based on the principle that to be eligible for grandfathering, previously collected data must be equivalent in quality to data that will be collected under the rule.

The Stage 2 M-DBP Advisory Committee recommended that EPA accept previously collected Cryptosporidium data that are "equivalent in sample number, frequency, and data quality (e.g. volume analyzed, percent recovery) to data that would be collected under the LT2ESWTR \* \* \* to determine bin classification in lieu of further monitoring" (USEPA 2000a). The Advisory Committee recognized that accepting previously collected data could have a number of benefits, including early determination of LT2ESWTR compliance needs, increasing laboratory capacity, and allowing PWSs to determine their bin classification using a larger, and potentially more representative, data set.

To ensure equivalent data quality, today's rule requires that grandfathered data meet the same requirements for analytical methods, sampling location, and sample volume as data collected under the rule. PWSs must not selectively report monitoring results for grandfathering. Further, grandfathered Cryptosporidium data must generally be collected at least monthly and on a regular schedule, with the same provisions for delayed or replacement samples as allowed for regular monitoring. Today's final rule differs from the proposal, however, in making allowances for use of previously collected data where irregularities or gaps in the sampling frequency occur.

EPA recognizes that when PWSs collected Cryptosporidium data prior to the proposed or final LT2ESWTR, there may have been months when a PWS either failed to collect or lost a sample due to problems with equipment, transportation, laboratory analysis, or other reasons. If the PWS did not collect a replacement sample, gaps in the previously collected data set occurred. EPA believes that grandfathering of such a data set may be appropriate despite these gaps if the PWS conducts additional monitoring, as necessary, to "fill-in" gaps and ensure that the data set is unbiased. Consequently, today's rule allows grandfathering of data with



gaps in the sampling frequency if approved by the State.

In addition, if the frequency of sampling in a previously collected data set varies, EPA believes the data could still be appropriate for use in bin classification. For example, a PWS might have sampled for *Cryptosporidium* once per month for a number of months and then increased the sampling frequency to twice per month. Today's rule allows the use of such a data set. However, to avoid bias, the PWS must calculate a monthly average for each month of sampling and then determine the bin classification using these monthly averages, rather than the individual sample concentrations.

Today's rule requires PWSs that plan to grandfather monitoring data to notify EPA or the State regarding the number and time span of sample results no later than three months prior to when the PWS must begin monitoring. The timing for submission of this notice is concurrent with the submission of a sampling schedule. This notification is necessary for the State to determine that a PWS is not required to submit a sampling schedule (when a PWS will fully comply with initial monitoring through grandfathering) or that a sampling schedule may include less than the full number of required samples (when a PWS will conduct new monitoring in conjunction with grandfathering to complete a data set). Further, this notice will assist EPA and States in determining the resources necessary to ensure timely review of grandfathered data.

PWSs must submit all monitoring results for grandfathering to EPA or the State, along with required supporting documentation, no later than two months after the PWS is required to begin monitoring. This timing will allow a PWS to continue collecting data for grandfathering until the month the PWS is required to begin monitoring under today's rule, plus an additional two months for sample analysis and compilation of the data for submission.

This reporting deadline for grandfathering monitoring results is a change from the proposed rule. In the proposal, a PWS that intended to grandfather data in lieu of conducting new monitoring under the rule had to submit its grandfathered results no later than four months prior to when the PWS was otherwise required to begin monitoring under the rule. This proposed approach had the shortcoming that a PWS could not complete its monitoring for grandfathering within this four month period. In today's final rule, a PWS may continue monitoring

for grandfathering all the way until the date when the PWS must begin monitoring under the rule, if necessary. PWSs that conclude their monitoring for grandfathering earlier may submit the data at an earlier date.

*g. Ongoing watershed assessment.* Treatment requirements under the LT2ESWTR are based on source water quality. Consequently, today's rule requires watershed assessment and, as described in the next section, a second round of monitoring following initial bin classification to determine if source water quality has changed to the degree that the treatment level should be modified. These requirements are unchanged from those in the proposed LT2ESWTR (USEPA 2003a), with the exception of an allowance for States to use programs other than the sanitary survey to assess changes in the watershed.

Today's rule leverages the existing requirement for States to perform sanitary surveys on surface water PWSs. During the source water review in the sanitary survey, today's rule requires States to determine if significant changes have occurred in the watershed that could lead to increased contamination by *Cryptosporidium*. The State can also choose to make this determination through an equivalent review of the source water under a program other than the sanitary survey, such as a Source Water Protection Assessment. If the State determines that significant changes have occurred, the State may specify that the PWS conduct additional source water monitoring or treat the potential contamination. This approach allows the PWS and State to respond to a significant change in source water quality prior to initiating a second round of monitoring or any time thereafter.

*h. Second round of monitoring.* A more rigorous reassessment of the source water occurs through a second round of monitoring that begins six years after initial bin classification. If EPA does not develop and finalize modifications to the LT2ESWTR prior to the date when PWSs must begin the second round of monitoring, then this second round must conform to the same requirements that applied to the initial round of monitoring. PWSs may be classified in a different treatment bin, depending on the results of the second round of monitoring.

The Stage 2 M-DBP Advisory Committee recommended that EPA initiate a stakeholder process several years prior to the second round of monitoring to review new information and determine if today's rule should be modified. If the Agency modifies the

LT2ESWTR, the second round of monitoring would potentially involve a new analytical method and a different treatment bin structure.

### 3. Summary of Major Comments

Public comment on the August 11, 2003, LT2ESWTR proposal generally supported the use of source water monitoring to determine additional treatment requirements. The following discussion summarizes major comments and EPA's responses in regard to sampling parameters and frequency, sampling location, sampling schedule, monitoring plants that operate only part-year, failing to monitor, providing treatment instead of monitoring, grandfathering previously collected data, ongoing source water assessment, second round of monitoring, and new source monitoring.

*a. Sampling parameters and frequency.* Most commenters supported the proposed requirements for large PWSs to sample monthly for *Cryptosporidium*, as well as for *E. coli* and turbidity in filtered PWSs, for 24 months. Alternatives recommended by some commenters included ending monitoring after one year if no oocysts are detected, allowing large PWSs to use an *E. coli* screening analysis to determine if *Cryptosporidium* monitoring is necessary, and using watershed data to determine treatment needs instead of source water monitoring.

In response, EPA continues to believe that large PWSs should complete 24 months of *Cryptosporidium* monitoring, regardless of the first-year results, in order to capture a degree of annual variability in *Cryptosporidium* occurrence. Moreover, for the reasons discussed previously in this preamble, EPA continues to support the Advisory Committee recommendation that all large PWSs should monitor for *Cryptosporidium*, rather than use the *E. coli* screening analysis. EPA is not aware of studies that support the use of other watershed data in place of *Cryptosporidium* monitoring to determine treatment needs.

Regarding requirements for small PWSs, most commenters supported the *E. coli* screening analysis for small filtered PWSs. Several commenters recommended more options for *Cryptosporidium* monitoring by small PWSs, such as allowing monitoring to be spread over two years, instead of the one year required in the proposal, or allowing fewer samples. EPA agrees that budgeting for *Cryptosporidium* monitoring by some small PWSs will be easier if it is spread over two years, and today's rule allows this as an option.



However, based on the analysis of false negative and false positive rates described previously, EPA continues to believe that at least 24 *Cryptosporidium* samples are necessary to determine the appropriate bin classification for year-round plants.

b. *Sampling location.* With respect to sampling location requirements, several commenters recommended that PWSs be allowed to collect samples either before or after pretreatment processes. These commenters stated that the chemicals used in pretreatment processes are unlikely to affect the analysis of *Cryptosporidium* oocysts at typical concentrations. Further, where sampling is conducted prior to a pretreatment process like presedimentation, commenters supported allowing PWSs to receive additional treatment credit for the process.

In response, EPA continues to believe that common pretreatment chemicals like oxidants and coagulants have the potential to adversely affect the performance of *Cryptosporidium* analytical methods. Consequently, today's rule requires that in most cases, PWSs must sample upstream of chemical addition. Where PWSs sample prior to pretreatment processes like presedimentation with coagulation, they are eligible to receive additional treatment credit for the process. However, if sampling prior to chemical addition is not feasible for a particular plant and the treatment chemical is present at a very low level that is unlikely to interfere with sample analysis, the State may approve sampling after chemical addition.

Many commenters recommended that States approve sampling locations for their PWSs. Commenters indicated that State review and approval of monitoring plans will help to prevent confusion and PWSs potentially sampling at an incorrect location. EPA agrees with these commenters and has established a requirement in today's rule for PWSs to report a description of the sampling location to the State. If a PWS does not hear back from the State by the time it is scheduled to begin sampling, it may assume that its monitoring location is acceptable.

c. *Sampling schedule.* In regard to sampling schedule requirements, several commenters requested that PWSs be given a time window larger than 5 days around scheduled sampling dates to collect samples. Recommended alternatives included a 7 or 9-day window, or only requiring that PWSs collect a sample within a specified month. In addition, commenters identified situations that interfere with

sample collection, such as plant interruptions and laboratory or transportation problems, and noted that some of these are outside the conditions under which the proposal allowed a PWS to collect a delayed or replacement sample without penalty.

In response, EPA continues to believe that for routine sample collection, a 5-day window provides sufficient flexibility, given that PWSs will pick the sampling days and can schedule around holidays, weekends, and other times when sampling would be problematic. However, today's rule allows PWSs to sample outside of this window without penalty if necessary due to unforeseen conditions. Further, if a PWS collects a sample but is unable to have it analyzed due to problems with equipment, transportation or the laboratory, today's rule allows the PWS to collect a replacement sample without penalty.

In regard to the time frame for collecting missed or replacement samples, commenters recommended a number of approaches. These include adding extra sampling days to the original sampling schedule, which a PWS could then use in the event of missed sampling dates, and allowing PWSs to collect make-up samples either immediately after the scheduled sampling date or at the end of the monitoring period.

In general, EPA considers it preferable for PWSs to collect missed or replacement samples as close as is feasible to scheduled sampling dates. However, if there is a significant delay with respect to the original sampling date, collecting make-up samples at an alternate time may be appropriate to ensure that sampling results are seasonally representative. Therefore, today's rule requires PWSs to collect a missed sample as close as is feasible to the scheduled sampling date, and to collect replacement samples within 21 days of receiving information that one is needed, unless doing so within this time frame is not feasible. However, the State can authorize alternative sampling dates so that monitoring is not seasonally biased. This could include sampling during the same time in the following year, if the missed sample occurred during the first year of monitoring, or sampling after the end of the scheduled monitoring period.

d. *Plants operating only part of the year.* Commenters on monitoring requirements for surface water plants that operate for only part of the year generally recommended that sampling occur only during the period of operation. However, several different options were put forward for how the sampling be conducted. Some

commenters recommended a minimum of 12 samples per year for two years distributed evenly over the period that the plant operates. Others suggested allowing the PWS to collect the required number of samples over a longer time period in order to limit the frequency of required samples when the plant is operating. Several commenters said that State input is critical to determining the appropriate monitoring period since States may have historical knowledge of plant operating practices.

In response, EPA agrees that monitoring of plants that operate only part-year under today's rule should be conducted only during months when the plant is operating, unless the State determines that a longer monitoring period is appropriate due to historical operating practices. Further, plants that operate only part-year should maintain the same sampling frequency as plants operating year-round, with the exception that plants monitoring for *Cryptosporidium* must collect at least six samples per year to allow for appropriate bin classification. EPA does not believe extending monitoring over more years in plants that operate only part-year is appropriate, as this would delay the installation of additional treatment where needed.

e. *Failing to monitor.* Most commenters opposed automatically classifying PWSs in the highest treatment bin (Bin 4) if they fail to complete required monitoring, as the proposed rule stipulated. Commenters suggested alternative approaches, such as giving States the flexibility to address missed samples using current enforcement mechanisms, classifying a PWS only one level higher than the bin determined by the collected data, allowing an additional year of sampling, and allowing States to use other information (e.g., sanitary surveys, other monitoring data) to aid in the classification. A few commenters, however, supported Bin 4 classification for PWSs that fail to monitor, on the basis that any other approach would create an incentive for PWSs to stop testing if poor water quality is suspected.

EPA agrees that States should have flexibility in dealing with PWSs that fail to monitor. Further, providing the highest level of treatment may not be in the best interests of consumers where a PWS has minor problems in carrying out source water monitoring. However, EPA also believes that violations for monitoring failures must reasonably ensure that PWSs complete monitoring as required to determine a bin classification within the compliance

date. Failure to do so would potentially compromise public health protection.

Based on these considerations, EPA has not established an automatic Bin 4 classification for monitoring failures under today's rule. Rather, if a PWS misses three or more *Cryptosporidium* samples, this persistent violation requires a Tier 2 public notice (other violations require a Tier 3 notice). Further, if a PWS is unable to determine a bin classification by the compliance date due to failure to collect the required number of *Cryptosporidium* samples, this is a treatment technique violation with a required Tier 2 public notice (unless the PWS has already issued a Tier 2 notice for missing 3 *Cryptosporidium* samples and is monitoring on a State-approved schedule). These violations last until the State determines that a PWS has begun monitoring on a schedule that will lead to bin classification or the PWS agrees to install treatment instead of monitoring.

*f. Providing treatment instead of monitoring.* Commenters supported the option for a PWS to provide the highest level of *Cryptosporidium* treatment required under today's rule rather than conducting source water monitoring. Several commenters recommended that a PWS should be allowed to take this option after having initiated monitoring. EPA agrees, and today's rule allows a PWS to stop monitoring at any time by notifying the State that it will provide 5.5-log *Cryptosporidium* treatment for filtered PWSs or 3-log *Cryptosporidium* inactivation for unfiltered PWSs by the compliance deadline specified in section IV.G.

*g. Grandfathering previously collected data.* With respect to grandfathering previously collected data, many commenters expressed concern with a proposed requirement that samples must have been collected in equal time intervals. Commenters stated that although PWSs may have sampled on a regular schedule, previously collected data sets are likely to have gaps due to samples rejected for method QC violations or periods when the PWS was unable to collect a sample. In addition, there are instances where PWSs have changed the frequency of sampling, such as from monthly to twice per month.

EPA agrees that if a PWS has collected samples according to a regular schedule and met other data quality standards, then rejecting a large data set due to isolated gaps in the sampling frequency would be inappropriate. Consequently, today's rule allows States to approve grandfathering of previously collected data with omissions in the sampling

interval, provided the PWS conducts additional monitoring if required by the State to ensure the data set is seasonally representative. Further, PWSs may grandfather previously collected data sets in which the sampling frequency varies, as long as samples were collected at least monthly. In this situation, PWSs must use monthly average concentrations, rather than individual sample concentrations, for bin classification.

With respect to data quality standards, such as meeting analytical method QC criteria, sampling at the correct location, and analyzing the minimum sample volume, several commenters stated that EPA should apply the same acceptance standards to previously collected data as are applied to data collected under today's rule. Other commenters, though, suggested that States should have the flexibility to accept previously collected data that deviate from the data quality standards for monitoring under the rule. These commenters stated that such data sets might include samples collected over a longer period of time and may reflect more worst-case weather events.

In response, EPA believes that data quality standards should be uniformly applied under today's rule, so that previously collected data should not be held to a lower standard than new data or evaluated differently from State to State. The requirements in today's rule with respect to *Cryptosporidium* analytical methods and minimum sample volume reflect recommendations of the Advisory Committee, which also recommended that the same data quality standards be applied for grandfathering. Further, because today's rule allows PWSs to collect make-up samples to address gaps in previously collected data sets, PWSs will have the opportunity to collect make-up samples for results that are rejected due to data quality standards without losing an entire data set.

In regard to notification of the acceptability of data for grandfathering, commenters recommended that if previously collected data submitted by a PWS are rejected, the PWS should have at least two months between notification and the date new monitoring must be initiated. These two months will give the PWS time to address rejection of the data and prepare for sampling. EPA agrees with this recommendation. Under today's rule, if a PWS properly submits a complete data set for grandfathering and the PWS must conduct new monitoring due to rejection of the data, the PWS has at least two months following notification by the State to initiate sampling.

*h. Ongoing watershed assessment.* Commenters asked for greater flexibility in the requirement for States to determine whether there have been significant changes in the watersheds of their PWSs that could lead to increased contamination. The proposed rule specified that States must make this determination during sanitary surveys. However, several commenters noted that some States perform source water protection assessments on the same frequency as sanitary surveys, and these detailed assessments might be a better mechanism to monitor changes in the watershed. EPA agrees and today's rule allows States to determine whether significant changes have occurred in the watershed through either a sanitary survey or an equivalent review of the source water under another program.

*i. Second round of monitoring.* Some commenters supported the proposed requirement for a second round of source water monitoring, but most opposed requiring it for all PWSs. These commenters recommended that States should be authorized to use sanitary surveys, source water assessments, ambient water quality data, treatment plant data, and other information to determine if a second round of monitoring is necessary for a PWS. Some commenters suggested that EPA fund research to allow the use of finished water monitoring as the determinant for treatment requirements in a second round of monitoring.

In response, EPA continues to believe that PWSs should conduct a second round of monitoring to determine if the level of treatment required as a result of the first round of monitoring is still appropriate. Consequently, today's rule requires this. However, EPA agrees that prior to a second round of monitoring, the Agency should evaluate the results of the first round of monitoring, along with whatever new information is available on *Cryptosporidium* analytical methods, risk, and other relevant issues. If EPA determines that there should be changes to the requirements for a second round of monitoring in today's rule, the Agency will issue a new rule establishing those changes.

*j. New source monitoring.* EPA requested comment in the proposal on monitoring requirements for new plants and sources (USEPA 2003a). Most commenters recommended that new plants and sources undergo monitoring equivalent to that required for existing plants and sources, and suggested that States should have discretion to determine when monitoring should take place. EPA agrees with these recommendations and today's rule requires PWS to conduct source water

monitoring for new plants and sources on a schedule approved by the State. This schedule must include dates for the PWS to determine its treatment bin classification and, if necessary, comply with additional Cryptosporidium treatment requirements.

**B. Filtered System Cryptosporidium Treatment Requirements**

**1. Today's Rule**

Today's rule requires filtered PWSs using surface water or GWUDI sources to provide greater levels of treatment if their source waters have higher concentrations of Cryptosporidium.

Specifically, filtered PWSs are classified in one of four treatment bins based on results from the source water monitoring described in the previous section. PWSs classified in the lowest concentration bin are subject to no additional treatment requirements, while PWSs assigned to higher concentration bins must reduce Cryptosporidium levels beyond IESWTR and LT1ESWTR requirements. All PWSs must continue to comply with the requirements of the SWTR, IESWTR, and LT1ESWTR, as applicable.

This section addresses procedures for classifying filtered PWSs in Cryptosporidium treatment bins and the

treatment requirements associated with each bin. Section IV.D presents the treatment and control options, collectively termed the "microbial toolbox," that PWSs must use to meet additional Cryptosporidium treatment requirements under today's rule.

a. *Bin classification.* After completing initial source water monitoring, filtered PWSs must calculate a Cryptosporidium bin concentration for each treatment plant where Cryptosporidium monitoring is required. This Cryptosporidium bin concentration is used to classify filtration plants in one of the four treatment bins shown in Table IV.B-1.

TABLE IV.B-1.—BIN CLASSIFICATION TABLE FOR FILTERED PWSs

For PWSs that are:	with a Cryptosporidium bin concentration of . . .	The bin classification is . . .
* * * required to monitor for Cryptosporidium	less than 0.075 oocysts/L	Bin 1.
	0.075 oocysts/L or higher, but less than 1.0 oocysts/L	Bin 2.
	1.0 oocysts/L or higher, but less than 3.0 oocysts/L	Bin 3.
	3.0 oocysts/L or higher	Bin 4.
* * * serving fewer than 10,000 people and NOT required to monitor for Cryptosporidium <sup>1</sup> .	NA	Bin 1.

<sup>1</sup> Filtered PWSs serving fewer than 10,000 people are not required to monitor for Cryptosporidium if they monitor for E. coli and demonstrate a mean concentration of E. coli less than or equal to 10/100 mL for lake/reservoir sources or 50/100 mL for flowing stream sources or do not exceed an alternative State-approved indicator trigger (see section IV.A.1).

In general, the Cryptosporidium bin concentration is calculated by averaging individual sample results from one or more years of monitoring. Specific procedures vary, however, depending on the frequency and duration of monitoring. These procedures are as follows:

(1) For PWSs that collect a total of at least 24 but not more than 47 Cryptosporidium samples over two or more years, the Cryptosporidium bin concentration is equal to the highest arithmetic mean of all sample concentrations in any 12 consecutive months of Cryptosporidium monitoring.

(2) For PWSs that collect a total of at least 48 samples, the Cryptosporidium bin concentration is equal to the arithmetic mean of all sample concentrations.

(3) For PWSs that serve fewer than 10,000 people and monitor for Cryptosporidium for only one year (i.e., collect 24 samples in 12 months), the Cryptosporidium bin concentration is equal to the arithmetic mean of all sample concentrations.

(4) For PWSs with plants that operate only part-year that monitor for less than 12 months per year, the Cryptosporidium bin concentration is equal to the highest arithmetic mean of all sample concentrations during any year of Cryptosporidium monitoring.

In data sets with variable sampling frequency, PWSs must first calculate an arithmetic mean for each month of sampling and then apply one of these four procedures using the monthly mean concentrations. As described in section IV.A, PWSs may grandfather previously collected Cryptosporidium data where the sampling frequency varies (e.g., one year of monthly sampling and one year of twice-per-month sampling).

Filtered PWSs serving fewer than 10,000 people are not required to monitor for Cryptosporidium if they demonstrate a mean E. coli concentration less than or equal to 10/100 mL for lake/reservoir sources or 50/100 mL for flowing stream sources or do not exceed an alternative State-approved indicator trigger. PWSs that meet this criterion are classified in Bin 1 as shown in Table IV.B-1.

When determining the Cryptosporidium bin concentration, PWSs must calculate individual sample concentrations as the total number of oocysts counted, divided by the volume assayed (see section V.K for details). In samples where no oocysts are detected, the result is assigned a value of zero for the purpose of calculating the bin concentration. Sample analysis results are not adjusted for analytical method

recovery or the percent of Cryptosporidium oocysts that are infectious.

PWSs must report their treatment bin classification to the State for approval following initial source water monitoring (see section IV.G for specific compliance dates). The report must include a summary of the data and calculation procedure used to determine the bin concentration. If EPA does not amend today's rule before the second round of monitoring described in section IV.A, PWSs must recalculate their bin classification after completing the second round of monitoring and report the results to the State for approval. If the State does not respond to a PWS regarding its bin classification after either report, the PWS must comply with the Cryptosporidium treatment requirements of today's rule based on the reported bin classification.

b. *Bin treatment requirements.* Table IV.B-2 shows the additional Cryptosporidium treatment requirements associated with the four treatment bins for filtered PWSs under today's rule. All filtered PWSs must comply with these treatment requirements based on their bin classification, which must be determined using the procedures just described.

TABLE IV.B-2.—TREATMENT REQUIREMENTS FOR LT2ESWTR BIN CLASSIFICATIONS

If your bin classification is . . .	And you use the following filtration treatment in full compliance with the SWTR, IESWTR, and LT1ESWTR (as applicable), then your additional treatment requirements are . . .		
	Conventional filtration treatment <sup>1</sup> , diatomaceous earth filtration, or slow sand filtration	Direct filtration	Alternative filtration technologies
Bin 1 .....	No additional treatment .....	No additional treatment .....	No additional treatment.
Bin 2 .....	1-log treatment <sup>2</sup> .....	1.5-log treatment <sup>2</sup> .....	As determined by the State <sup>2,4</sup>
Bin 3 .....	2-log treatment <sup>3</sup> .....	2.5-log treatment <sup>3</sup> .....	As determined by the State <sup>3,5</sup>
Bin 4 .....	2.5-log treatment <sup>3</sup> .....	3-log treatment <sup>3</sup> .....	As determined by the State <sup>3,6</sup>

<sup>1</sup> Applies to a treatment train using separate, sequential, unit processes for coagulation/flocculation, clarification, and granular media filtration. Clarification includes any solid/liquid separation process following coagulation where accumulated solids are removed during this separate component of the treatment system.

<sup>2</sup> PWSs may use any technology or combination of technologies from the microbial toolbox in section IV.D.

<sup>3</sup> PWSs must achieve at least 1-log of the required treatment using ozone, chlorine dioxide, UV, membranes, bag filtration, cartridge filtration, or bank filtration.

<sup>4</sup> Total Cryptosporidium removal and inactivation must be at least 4.0 log.

<sup>5</sup> Total Cryptosporidium removal and inactivation must be at least 5.0 log.

<sup>6</sup> Total Cryptosporidium removal and inactivation must be at least 5.5 log.

The total Cryptosporidium treatment required for plants in Bins 2, 3, and 4 is 4.0-log, 5.0-log, and 5.5-log, respectively. Conventional treatment (including softening), slow sand, and diatomaceous earth filtration plants in compliance with the IESWTR or LT1ESWTR, as applicable, receive a prescribed 3.0-log Cryptosporidium treatment credit toward these total bin treatment requirements. Accordingly, these plant types must provide 1.0- to 2.5-log of additional treatment when classified in Bins 2-4, respectively. Direct filtration plants in compliance with existing regulations receive a prescribed 2.5-log treatment credit and, consequently, must achieve 0.5-log greater treatment to comply with Bins 2-4. Section IV.D describes how States may award a level of treatment credit that differs from the prescribed credit based on a demonstration of performance by the PWS.

For PWSs using alternative filtration technologies, such as membranes, bag filters, or cartridge filters, no prescribed treatment credit is available because the performance of these processes is specific to individual products. Consequently, when PWSs using these processes are classified in Bins 2-4, the State must determine additional treatment requirements based on the credit the State awards to a particular technology. The additional treatment requirements must ensure that plants classified in Bins 2-4 achieve total Cryptosporidium reductions of 4.0- to 5.5-log, respectively. Section IV.D describes challenge testing procedures to determine treatment credit for membranes, bag filters, and cartridge filters.

PWSs can achieve additional Cryptosporidium treatment credit through implementing pretreatment

processes like presedimentation or bank filtration, by developing a watershed control program, and by applying additional treatment steps like ozone, chlorine dioxide, UV, and membranes. In addition, PWSs can receive a higher level of credit for existing treatment processes through achieving very low filter effluent turbidity or through a demonstration of performance. Section IV.D presents criteria for awarding Cryptosporidium treatment credit to these and other treatment and control options, which collectively comprise the microbial toolbox.

PWSs in Bin 2 can meet additional Cryptosporidium treatment requirements by using any option or combination of options from the microbial toolbox. For Bins 3 and 4, PWSs must achieve at least 1-log of the additional treatment requirement by using ozone, chlorine dioxide, UV, membranes, bag filtration, cartridge filtration, or bank filtration.

## 2. Background and Analysis

Today's rule will increase protection against Cryptosporidium and other pathogens in PWSs with the highest source water contamination levels. This targeted approach builds upon existing regulations under which all filtered PWSs must provide the same level of treatment regardless of source water quality. EPA's intent with today's rule is to ensure that PWSs with higher risk source waters achieve public health protection commensurate with PWSs with less contaminated sources.

The Cryptosporidium treatment requirements for filtered PWSs in today's rule are unchanged from the August 11, 2003 proposal (USEPA 2003a) and reflect consensus recommendations by the Stage 2 M-DBP Advisory Committee (USEPA 2000a).

The following discussion summarizes the Agency's basis for establishing risk-targeted Cryptosporidium treatment requirements and for setting the specific bin concentration ranges and treatment requirements that apply to filtered PWSs in today's rule.

a. *Basis for targeted treatment requirements.* In developing today's rule, EPA evaluated the degree to which new information on Cryptosporidium warranted moving beyond existing regulations. As discussed in section III, the IESWTR established a Cryptosporidium MCLG of zero and requires large filtered PWSs to achieve 2-log Cryptosporidium removal. The LT1ESWTR extended this requirement to small PWSs. After these rules were promulgated, advances were made in analytical methods and treatment for Cryptosporidium, and EPA collected new information on Cryptosporidium occurrence and infectivity. Consequently, EPA assessed the implications of these developments for further controlling Cryptosporidium to approach the zero MCLG.

The risk-targeted approach for filtered PWSs in today's final rule stems from four general findings based on new information on Cryptosporidium:

(1) New data on Cryptosporidium infectivity suggest that the risk associated with a particular level of Cryptosporidium is most likely higher than EPA estimated at the time of earlier rules;

(2) New data on Cryptosporidium occurrence indicate that levels are relatively low in most water sources, but a subset of sources has substantially higher concentrations;

(3) The finding that UV light can readily inactivate Cryptosporidium, as well as other technology developments, makes achieving high levels of

treatment for *Cryptosporidium* feasible for PWSs of all sizes; and

(4) EPA Methods 1622 and 1623 are capable of assessing annual mean levels of *Cryptosporidium* in drinking water sources.

These findings led EPA to conclude that most filtered PWSs currently provide sufficient treatment for *Cryptosporidium*, but additional treatment is needed in those PWSs with the highest source water *Cryptosporidium* levels to protect public health. Further, PWSs can characterize *Cryptosporidium* levels in their source waters with available analytical methods and can provide higher levels of treatment with available technologies. Consequently, risk-targeted treatment requirements for *Cryptosporidium* based on source water contamination levels are appropriate and feasible to implement.

b. *Basis for bin concentration ranges and treatment requirements.* To establish the risk-targeted treatment requirements in today's rule, EPA had to determine the degree of treatment that should be required for different source water *Cryptosporidium* levels to protect public health. This determination involved addressing several questions:

- What is the risk associated with *Cryptosporidium* in a drinking water source?
- How much *Cryptosporidium* removal do filtration plants achieve?
- What is the appropriate statistical measure for classifying PWSs into treatment bins?
- What degree of additional treatment is needed for higher source water *Cryptosporidium* levels?
- How should PWSs calculate their treatment bin classification?

This section summarizes how EPA evaluated these questions in developing today's rule. See the proposed LT2ESWTR for further details (USEPA 2003a).

*What is the Risk Associated With Cryptosporidium in a Drinking Water Source?*

The risk of infection from *Cryptosporidium* in drinking water is a function of exposure (i.e., the dose of oocysts ingested) and infectivity (i.e., likelihood of infection as a function of ingested dose). Primary (i.e., direct) exposure to *Cryptosporidium* depends on the concentration of oocysts in the source water, the fraction removed by the treatment plant, and the volume of water consumed (secondary exposure

occurs through interactions with infected individuals). Thus, the daily risk of infection (DR) is as follows:  

$$DR = (\text{oocysts/L in source water}) \times (\text{fraction remaining after treatment}) \times (\text{liters consumed per day}) \times (\text{likelihood of infection per oocyst dose}).$$

Assuming 350 days of consumption per year for people served by community water systems (CWSs), the annual risk (AR) of infection is as follows:

$$AR = 1 - (1 - DR)^{350}.$$

As discussed in section III.E, EPA has estimated the mean likelihood of infection from ingesting one *Cryptosporidium* oocyst to range from 4 to 16 percent. Median individual daily water consumption is estimated as 1.07 L/day. Figure IV.B-1 illustrates ranges for the annual risk of infection by *Cryptosporidium* in CWSs based on these values for different source water infectious oocyst concentrations and treatment plant removal efficiencies. The dashed lines represent the uncertainty associated with *Cryptosporidium* infectivity for each log-removal curve. See Chapter 5 of the LT2ESWTR Economic Analysis for details (USEPA 2005a).

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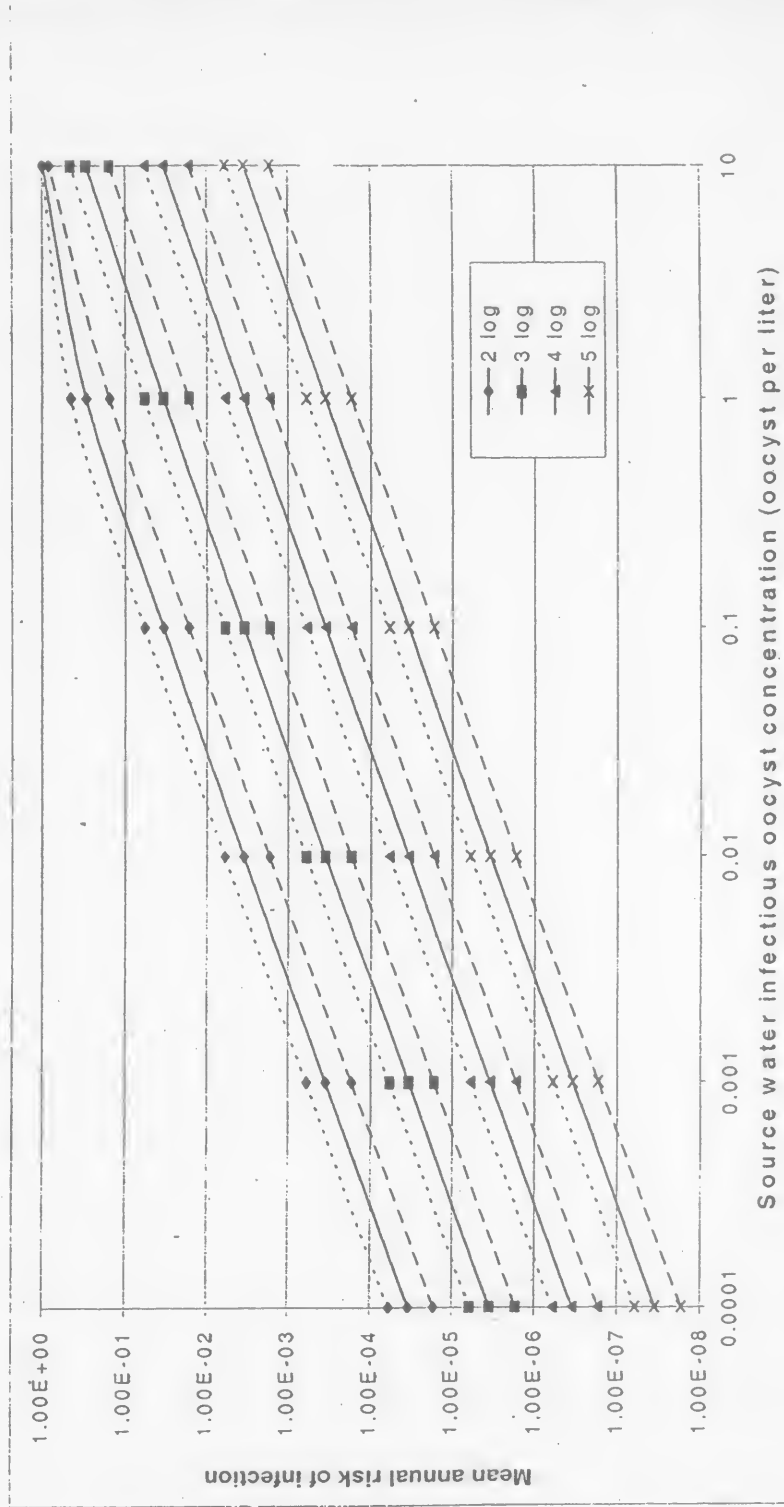


Figure IV.B-1.- Annual risk of *Cryptosporidium* infection as a function of source water infectious oocyst concentration for treatment plants achieving 2-log, 3-log, 4-log, or 5-log removal of oocysts.

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The results in Figure IV.B-1 show, for example, that if a treatment plant had a

concentration of infectious *Cryptosporidium* in the source water of

0.1 oocysts/L and the plant achieved 3-log removal, the mean annual risk of

Cryptosporidium infection would range from 0.0017 to 0.0060 (17 to 60 infections per 10,000 consumers). In comparison, if the same plant had a source water infectious Cryptosporidium level of 0.01 oocysts/L, the annual infection risk would range from 1.7 to 6 per 10,000 consumers.

*How much Cryptosporidium removal do filtration plants achieve?*

The amount of Cryptosporidium removal that filtration plants achieve was a key factor in assessing the additional treatment that plants with higher source water Cryptosporidium levels should provide. To evaluate this factor, EPA reviewed studies of Cryptosporidium removal by common treatment processes. As described in the proposal for today's rule, these processes were conventional treatment, direct, slow sand, and diatomaceous earth filtration, as well as membrane, bag, and cartridge filtration (USEPA 2003a).

The majority of plants treating surface water use conventional treatment, which is defined in 40 CFR 141.2 as coagulation, flocculation, sedimentation, and filtration. In the proposal, EPA reviewed studies of conventional treatment by Dugan et al. (2001), Nieminski and Bellamy (2000), McTigue et al. (1998), Patania et al. (1999), Huck et al. (2000), Emelko et al. (2000), and Harrington et al. (2001). Based on these studies, EPA estimated that conventional treatment plants in compliance with the IESWTR or LT1ESWTR typically achieve a Cryptosporidium removal efficiency of approximately 3-log. Consequently, conventional treatment plants receive 3-log credit toward Cryptosporidium treatment requirements under today's rule.

This 3-log credit for conventional treatment is consistent with the Stage 2 M-DBP Agreement in Principle (USEPA 2000a), which states as follows:

"The additional treatment requirements in the bin requirement table are based, in part, on the assumption that conventional treatment plants in compliance with the IESWTR achieve an average of 3 logs removal of Cryptosporidium."

The M-DBP Advisory Committee did not recommend a level of Cryptosporidium treatment credit for other types of filtration plants.

EPA also reviewed studies of the performance of clarification processes like dissolved air flotation, which can be used in place of sedimentation in a conventional treatment train (Gregory and Zabel 1990, Plummer et al. 1995, Edzwald and Kelley 1998). These studies indicate that plants using clarification processes other than sedimentation that are located after coagulation and prior to filtration can achieve performance equivalent to conventional treatment plants. As a result, any treatment train that includes coagulation/flocculation, clarification, and granular media filtration is regarded as conventional treatment for purposes of awarding treatment credit under today's rule. The clarification step must be a solid/liquid separation process where accumulated solids are removed during this separate component of the treatment system.

Direct filtration plants use coagulation, flocculation, and filtration processes just as conventional treatment plants do, but they lack a sedimentation basin or equivalent clarification process. In the proposal, EPA reviewed studies of sedimentation by Dugan et al. (2001), States et al. (1997), Edzwald and Kelly (1998), Payment and Franco (1993), Kelly et al. (1995), and Patania et al. (1995). Results from these studies demonstrate that sedimentation basins can achieve 0.5-log or greater Cryptosporidium removal. In addition, some studies have observed that direct filtration achieves less Cryptosporidium removal than conventional treatment (Patania et al. 1995) and the incidence of Cryptosporidium in the treated water

is higher (McTigue et al. 1998). Given these findings, EPA has awarded direct filtration plants a 2.5-log credit towards Cryptosporidium treatment requirements under today's rule (i.e., 0.5-log less credit than for conventional treatment).

Slow sand filtration involves passing raw water through a bed of sand at low velocity and without prior coagulation. Diatomaceous earth filtration is a process by which a filtration medium is initially deposited onto a support membrane and medium is added throughout the operation to keep the filter from clogging. In the proposal, EPA reviewed slow sand filtration studies by Fogel et al. (1993), Hall et al. (1994), Schuler and Ghosh (1991), and Timms et al. (1995) and diatomaceous earth filtration studies by Schuler and Gosh (1990) and Ongerth and Hutton (1997, 2001). For both processes, these studies indicate that a well-designed and properly operated filter can achieve Cryptosporidium removal efficiencies similar to those observed for conventional treatment plants. Slow sand and diatomaceous earth filtration plants, therefore, receive a 3-log credit towards Cryptosporidium treatment requirements under today's rule.

Estimating a typical Cryptosporidium removal efficiency for filtration technologies like membranes, bag filters, and cartridge filters is not possible because the performance of such filters is specific to a particular product. As a result, credit for these devices must be determined by the State based on product-specific testing using the procedures described in section IV.D or other criteria approved by the State.

Table IV.B-3 summarizes the credits various types of filtration plants receive toward Cryptosporidium treatment requirements under today's rule. This credit determines the degree of additional treatment that plants classified in Bins 2-4 must apply, as shown in Table IV.B-2.

TABLE IV.B-3.—CRYPTOSPORIDIUM TREATMENT CREDIT TOWARDS LT2ESWTR REQUIREMENTS<sup>1</sup>

Plant type	Conventional treatment (includes softening)	Direct filtration	Slow sand or diatomaceous earth filtration	Alternative filtration technologies
Treatment credit .....	3.0-log .....	2.5-log .....	3.0-log .....	Determined by State. <sup>2</sup>

<sup>1</sup> Applies to plants in full compliance with the IESWTR or LT1ESWTR as applicable.

<sup>2</sup> Credit must be determined through product or site-specific assessment.

As discussed previously, studies indicate that conventional treatment plants producing very low filtered water turbidity can achieve a higher level of Cryptosporidium removal than 3-log, and today's rule allows such plants to

receive additional treatment credit. Further, States can award a higher or lower level of credit to an individual plant based on a site-specific demonstration of performance. Section

IV.D provides details on both of these topics.

The Cryptosporidium removal credits for filtration plants in today's rule differ from the amount of credit awarded under the IESWTR and LT1ESWTR. As

discussed in section III, those rules require all filtered PWSs to achieve 2-log removal of *Cryptosporidium*. PWSs using conventional treatment, or direct, slow sand, or diatomaceous earth filtration are in compliance with this requirement if they meet specified filtered water turbidity standards. These regulatory criteria were based on consideration of the minimum level of removal that all these filtration processes will achieve (USEPA 1998a). However, in the risk assessments that supported these regulations, EPA estimated that most filtration plants will achieve significantly more removal, with median *Cryptosporidium* reductions near 3-log.

Today's rule will supplement IESWTR and LT1ESWTR requirements by mandating additional treatment at certain PWSs based on source-water *Cryptosporidium* levels. When assessing the need for additional treatment at potentially higher risk PWSs, EPA believes that considering the full removal efficiency achieved by different types of treatment plants is appropriate. Because making a site-specific assessment of removal efficiency at all treatment plants individually is not feasible, establishing prescribed treatment credits based on available data is necessary. Accordingly, EPA has concluded that available data support the higher levels of prescribed credit towards *Cryptosporidium* treatment requirements for filtration plants established by today's rule.

*What is the appropriate statistical measure for classifying PWSs into treatment bins?*

EPA and the Advisory Committee evaluated different statistical measures for characterizing *Cryptosporidium* monitoring results to determine if additional treatment should be required. These measures included the arithmetic mean, median, 90th percentile, and maximum.

EPA concluded, consistent with Advisory Committee recommendations, that *Cryptosporidium* levels should be characterized by an arithmetic mean. This conclusion is based on two factors: (1) Available data suggest that the mean concentration directly relates to the average risk of the exposed population (i.e., drinking water consumers); and (2) with a limited number of samples, the mean can be estimated more accurately than other statistical measures, such as a 90th percentile estimate.

*What degree of additional treatment is needed for higher source water Cryptosporidium levels?*

Development of the risk-based treatment requirements in today's rule involved first determining the threshold source-water *Cryptosporidium* level at which filtered PWSs should provide additional treatment to protect public health. The key factors in making this determination were the estimations of *Cryptosporidium* risk and treatment plant removal efficiency discussed previously, along with the performance of analytical methods for classifying PWSs in different treatment bins.

EPA and Advisory Committee deliberations focused on mean source-water *Cryptosporidium* concentrations in the range of 0.01 to 0.1 oocysts/L as threshold levels for requiring additional treatment. Based on the type of risk information shown in Figure IV.B-1, these levels are estimated to result in an annual infection risk in the range of  $1.7 \times 10^{-4}$  to  $6.0 \times 10^{-3}$  (or 1.7 to 60 infections per 10,000 consumers) for a treatment plant achieving 3-log *Cryptosporidium* removal (the treatment efficiency estimated for conventional plants under existing regulations).

A shortcoming with establishing the threshold for additional treatment at 0.01 oocysts/L, however, is that a PWS would exceed this concentration with only a very few oocysts being detected. For a PWS collecting monthly 10-L samples and bin classification based on the maximum running annual average, as required under today's rule, detecting two oocysts during one year of monitoring would exceed a mean of 0.01 oocysts/L. Given the uncertainty associated with *Cryptosporidium* monitoring, EPA and the Advisory Committee did not support requiring additional treatment for filtered PWSs based on so few counts. Although this shortcoming could theoretically be addressed by a higher sampling frequency, the feasibility of increased sampling is limited by the capacity of laboratories and the cost of sample analysis.

A related concern in establishing the threshold concentration for requiring additional treatment was bin misclassification. If the threshold concentration was set at 0.1 oocysts/L, for example, some PWSs with actual mean source-water concentrations greater than this level would measure a concentration less than this level and would be misclassified in the bin that requires no additional treatment. Consequently, they would not provide sufficient public health protection. As discussed previously, this type of error

is due to the limited number and volume of samples that can be analyzed, imperfect method recovery, and variability in *Cryptosporidium* occurrence.

Based on these considerations, the Advisory Committee recommended and today's rule establishes that filtered PWSs must provide additional treatment for *Cryptosporidium* when their mean source-water concentration exceeds 0.075 oocysts/L. At this concentration, PWSs collecting monthly 10-L samples must count at least nine oocysts in one year (9 oocysts per 120 L total sample volume) before additional treatment is required. Further, any PWS with a mean source-water infectious *Cryptosporidium* level above 0.1 oocysts/L, which corresponds to an estimated infection risk range of 1.7 to  $6.0 \times 10^{-3}$ , is highly likely to be appropriately classified in a bin requiring additional treatment.

After identifying this first threshold for requiring additional treatment, determining the *Cryptosporidium* concentrations that should bound higher treatment bins was necessary. In making these determinations, EPA concurred with Advisory Committee recommendations that sought to balance the possibility of bin misclassification against equitable risk reduction and public health protection.

Treatment bins that span a wider concentration range result in lower bin misclassification rates. The analysis summarized in section IV.A shows that the monitoring required under today's rule can accurately characterize a PWS's mean *Cryptosporidium* level within a 0.5-log margin, but error rates increase for smaller margins (USEPA 2005a). Conversely, treatment bins that span a narrower concentration range provide more equitable protection from risk among different PWSs. This is due to identical treatment requirements applying to all PWSs in the same bin. In consideration of these issues, today's rule establishes two higher treatment bins at *Cryptosporidium* concentrations of 1.0 oocysts/L and 3.0 oocysts/L. These values result in the four bins shown in Table IV.B-1. Available occurrence data indicate that few PWSs will measure mean *Cryptosporidium* concentrations greater than 3.0 oocysts/L, so there is no need to establish a treatment bin above this level.

With respect to the degree of additional *Cryptosporidium* treatment that PWSs in Bins 2-4 must provide, EPA and the Advisory Committee considered values of 0.5-log and greater. Today's rule establishes a 1-log additional treatment requirement for conventional plants in Bin 2. Because

the concentration range of Bin 2 spans approximately one order of magnitude, this degree of treatment ensures that plants classified in Bin 2 will achieve treated water *Cryptosporidium* levels comparable to plants in Bin 1. Conventional plants in Bins 3 and 4 must provide 2.0- and 2.5-log of additional treatment, respectively. As recommended by the Advisory Committee, these higher additional treatment levels are required based on the recognition that plants in Bins 3 and 4 have a much greater potential vulnerability to *Cryptosporidium*. Consequently, significantly higher treatment is appropriate to protect public health.

These additional treatment requirements for conventional treatment plants in Bins 2-4 are based on a prescribed 3-log *Cryptosporidium* treatment credit for compliance with the IESWTR or LT1ESWTR, as discussed previously. They translate to total *Cryptosporidium* treatment requirements of 4.0-, 5.0-, and 5.5-log for Bins 2, 3, and 4, respectively. Plants receiving higher or lower levels of prescribed treatment credit are required to provide less or more additional treatment if classified in Bins 2-4.

Plants using slow sand or diatomaceous earth filtration, which also receive a 3-log treatment credit, incur the same additional treatment requirements as conventional plants if classified in Bins 2-4. Direct filtration plants, however, must provide 0.5-log greater additional treatment if classified in Bins 2-4 because they receive a 2.5-log prescribed credit. EPA expects, though, that most direct filtration plants will be classified in Bin 1 because direct filtration is typically applied only to higher quality source waters.

Because EPA is unable to establish a prescribed treatment credit for other types of filtration technologies like membranes, bag filters, and cartridge filters, today's rule requires that States assign a treatment credit to a particular filtration product. This credit then determines the amount of additional treatment that a plant using this product must provide if classified in Bins 2-4 in order to achieve the required total treatment level. Section IV.D provides criteria for assigning *Cryptosporidium* treatment credit to membranes, bag filters, and cartridge filters.

As described in Section IV.D, today's rule establishes a wide range of treatment and control options through the microbial toolbox for PWSs to meet additional *Cryptosporidium* treatment requirements. PWSs may choose any option or combination of options from the microbial toolbox to meet the

treatment requirements of plants in Bin 2. For plants in Bins 3 or 4, though, PWSs must achieve at least 1-log of the additional treatment requirement using UV, ozone, chlorine dioxide, membranes, bag filters, cartridge filters, or bank filtration. EPA is establishing this provision in today's rule as recommended by the Advisory Committee because these processes will serve as significant additional treatment barriers for PWSs with the highest levels of pathogens in their sources.

*How should PWSs calculate their treatment bin classification?*

The specific calculations that PWSs use to determine their bin classification are based on analyses of misclassification rates and bias. As described in section IV.A, today's rule requires PWSs to collect at least 24 samples (except for plants that operate only part-year) when they monitor for *Cryptosporidium*. Most PWSs will collect these 24 samples over two years, but PWSs may sample at a higher frequency and small PWSs may complete this monitoring in one year. These differences affect the bin classification calculation.

PWSs that sample monthly over two years (24 samples total) must use the maximum running annual average (Max-RAA) for bin classification because this achieves a low false negative rate (the likelihood a PWS will be incorrectly classified in a lower bin). In comparison, if such PWSs used the mean of all samples over two years for bin classification, the false negative rate would be almost four times higher (see Table IV.B.4).

PWSs that choose to sample at least twice per month over two years (48 samples total) must use the mean of all 48 samples for their bin classification. This approach achieves a low false negative rate similar to the Max-RAA for 24 samples and, in addition, reduces the false positive rate (the likelihood a PWS will be incorrectly classified in higher bin—see Table IV.B.4). Due to the lower false positive rate associated with 48 samples, EPA expects that some PWSs will choose to sample for *Cryptosporidium* twice per month.

Small PWSs (serving fewer than 10,000 people) that complete their *Cryptosporidium* monitoring over one year must use the mean of all 24 samples for bin classification. This approach has a higher false negative rate than the approaches allowed for PWSs that monitor over two years. However, it is the only feasible option for PWSs that conduct just one year of *Cryptosporidium* sampling. Averaging sample concentrations over less than

one year is not appropriate (except in the case of plants that operate only part-year that monitor for less than one year) as this would bias the bin classification due to seasonal variation in water quality.

TABLE IV.B-4.—FALSE POSITIVE AND FALSE NEGATIVE RATES FOR MONITORING AND BINNING STRATEGIES CONSIDERED FOR THE LT2ESWTR

Strategy	False positive <sup>1</sup>	False negative <sup>2</sup>
48 sample arithmetic mean ...	1.7%	1.4%
24 sample Max-RAA .....	5.3%	1.7%
24 sample arithmetic mean ...	2.8%	6.2%

<sup>1</sup> False positive rates calculated for systems with *Cryptosporidium* concentrations 0.5 log below the Bin 1 boundary of 0.075 oocysts/L.

<sup>2</sup> False negative rates calculated for systems with *Cryptosporidium* concentrations 0.5 log above the Bin 1 boundary of 0.075 oocysts/L.

Two additional considerations that relate to characterizing *Cryptosporidium* monitoring results to determine treatment requirements are (1) fewer than 100 percent of oocysts in a sample are recovered and counted by the analyst and (2) not all the oocysts measured with Methods 1622 or 1623 are capable of causing infection. These two factors are offsetting, in that oocyst counts not adjusted for recovery tend to underestimate the true concentration, while the total oocyst count typically overestimates the infectious concentration that presents a health risk.

As described in section III, matrix spike data indicate that average recovery of *Cryptosporidium* oocysts with Methods 1622 or 1623 in a national monitoring program will be approximately 40 percent. Regarding the fraction of oocysts that are infectious, LeChevallier et al. (2003) tested natural waters for *Cryptosporidium* using both Method 1623 and a method (cell culture-PCR) to test for infectivity. Results suggested that 37 percent of the *Cryptosporidium* oocysts detected by Method 1623 were infectious. This finding is consistent with the observation that 37 percent of the oocysts counted during the ICRSS using Methods 1622 or 1623 had internal structures, which indicate a higher likelihood of infectivity (among the remaining oocysts, 47 percent had amorphous structures and 16 percent were empty).

While it is not possible to establish a precise value for method recovery or the fraction of oocysts that are infectious,

available data suggest that these parameters may be of similar magnitude. Consequently, the Advisory Committee recommended that monitoring results should not be adjusted to account for either recovery or the fraction infectious. EPA concurs with this recommendation and today's rule requires that PWSs be classified in treatment bins using the total number of *Cryptosporidium* oocysts counted, without further adjustment. The LT2ESWTR treatment bins in today's rule are constructed to reflect this approach.

### 3. Summary of Major Comments

For filtered PWS treatment requirements in the LT2ESWTR proposal, EPA received significant public comment on the risk-based approach to requiring additional treatment, the role of States in determining bin classification, and the treatment credit for filtration plants. The following discussion summarizes comments in these areas and EPA's responses.

Most commenters supported the risk-based approach of the LT2ESWTR in which filtered PWSs monitor for microbial contaminants and only those PWSs finding higher levels of contamination are required to provide additional treatment for *Cryptosporidium*. Among these comments, many stated support for the four treatment bins for filtered PWSs, with some noting that future research will indicate whether the bins should be restructured in a later rulemaking. Several commenters expressed support for EPA's combination of the Stage 2 DBPR and LT2ESWTR as essential to creating a balanced approach between DBP control and microbial risk.

A few commenters opposed the expenditure of funds to reduce risk from *Cryptosporidium* on the basis that epidemiological evidence suggests this risk is low, and most communities have not experienced cryptosporidiosis outbreaks. EPA agrees that additional treatment for *Cryptosporidium* in drinking water is not warranted in all communities. Under today's rule, most PWSs are expected to be classified in the lowest bin, which requires no additional treatment. However, based on risk information presented in USEPA (2005a) and summarized in this preamble, EPA believes that additional treatment is necessary to protect public health in PWSs with the highest *Cryptosporidium* levels. Further, as described in USEPA (2005a), EPA's assessment of *Cryptosporidium* risk in drinking water is consistent with the

limited available epidemiological data on disease incidence.

With respect to the role of States in bin classification, most commenters recommended that States assign or approve the bin classification for their PWSs. Commenters maintained that State approval of bin classification is an inherent governmental function and will avoid confusion as to the level of treatment each PWS must provide. Further, the approval process will provide an opportunity for dialog between States and PWSs. EPA agrees with these comments and today's rule requires PWSs to submit their calculation of bin classification to the State for review. If the PWS does not hear back from the State, it must proceed to apply the level of treatment appropriate for its calculated bin classification in accordance with its applicable compliance schedule.

In regard to the *Cryptosporidium* treatment credit that should be awarded to filtration plants, many commenters supported the 3-log *Cryptosporidium* removal credit for conventional treatment and slow sand filtration. Some comments included data showing that conventional treatment can achieve greater than 4-log removal of *Cryptosporidium*, and several commenters stated concerns that EPA has underestimated the level of treatment achievable through conventional treatment. Commenters supported the inclusion of plants using softening and dissolved air flotation for conventional treatment credit and requested that EPA extend this credit to similar treatment trains using other types of clarification processes.

EPA recognizes that studies show conventional treatment can achieve more than 3-log *Cryptosporidium* removal under optimal conditions. However, studies also demonstrate that removal efficiencies can be significantly less for suboptimal plant set-up and operation. EPA does not expect that all plants will operate under optimal conditions at all times. Consequently, today's rule awards a prescribed 3-log credit to conventional plants complying with the IESWTR or LT1ESWTR and allows plants to receive higher credit through demonstrating low finished water turbidity or through an alternative demonstration of performance, as describe in section IV.D. EPA agrees that plants using alternative clarification process that involves solids removal between coagulation and filtration should qualify for 3-log credit and today's rule provides for this.

### C. Unfiltered System *Cryptosporidium* Treatment Requirements

#### 1. Today's Rule

Today's rule requires all PWSs that use a surface water or GWUDI source and are unfiltered to provide treatment for *Cryptosporidium*. The degree of required treatment depends on the level of *Cryptosporidium* in the source water, as determined through required monitoring. Further, unfiltered PWSs must meet overall treatment requirements using at least two disinfectants and must continue to meet all applicable filtration avoidance criteria. Details of these requirements follow.

a. *Determination of mean Cryptosporidium level.* Following completion of the required initial source water monitoring described in section IV.A, each unfiltered PWS must determine the arithmetic mean of all its *Cryptosporidium* sample results generated during the monitoring period. As required for filtered PWSs, individual sample results must be calculated as the total number of oocysts counted, divided by the volume assayed (see section V.K for details). Samples are not adjusted for method recovery and, in samples where no oocysts are detected, the result is treated as zero.

Unfiltered PWSs must report their mean *Cryptosporidium* level to the State for approval (see section IV.G for specific reporting dates). The report must include a summary of the data used to determine the mean concentration. If the State does not respond to a PWS regarding its mean *Cryptosporidium* level, the PWS must comply with the *Cryptosporidium* treatment requirements of today's rule, as described next, based on the reported level.

If EPA does not amend today's rule before the second round of monitoring described in section IV.A, unfiltered PWSs must recalculate their mean *Cryptosporidium* level using results from the second round of monitoring. Unfiltered PWSs must report this level to the State as described for the initial round of monitoring.

b. *Cryptosporidium treatment requirements.* Unfiltered PWSs must comply with the following treatment requirements based on their mean source-water *Cryptosporidium* level: if the level is less than or equal to 0.01 oocysts/L then at least 2-log *Cryptosporidium* inactivation is required; if the level is greater than 0.01 oocysts/L, or if the unfiltered PWS chooses not to monitor for *Cryptosporidium*, then at least 3-log *Cryptosporidium* inactivation is



required. See section IV.G for treatment compliance dates.

EPA has developed criteria, described in section IV.D, to award Cryptosporidium inactivation credit for treatment with chlorine dioxide, ozone, or UV light. Unfiltered PWSs may use any of these disinfectants to meet their Cryptosporidium inactivation requirements under today's rule. Further, unfiltered PWSs must achieve the following with respect to disinfection treatment:

(1) A PWS that uses chlorine dioxide or ozone and fails to achieve the required level of Cryptosporidium inactivation on more than one day in the calendar month is in violation of the treatment technique requirement.

(2) A PWS that uses UV light and fails to achieve the required level of Cryptosporidium inactivation in at least 95 percent of the water delivered to the public every month is in violation of the treatment technique requirement.

c. *Use of two disinfectants.* Unfiltered PWSs must use at least two different disinfectants to provide 4-log virus, 3-log *Giardia lamblia*, and 2- or 3-log Cryptosporidium inactivation as required under 40 CFR 141.72(a) and today's rule. Further, each of two disinfectants must achieve by itself the total inactivation required for one of these target pathogens. This requirement does not modify the existing requirement under 40 CFR 141.72(a) for PWSs to provide a disinfectant residual in the distribution system.

## 2. Background and Analysis

The intent of the Cryptosporidium treatment requirements for unfiltered PWSs in today's final rule is to ensure that they achieve public health protection equivalent to that achieved by filtered PWSs. These requirements are unchanged from the August 11, 2003 proposal (USEPA 2003a), and they reflect consensus recommendations by the Stage 2 M-DBP Advisory Committee (USEPA 2000a). The following discussion summarizes the Agency's basis for establishing risk-targeted Cryptosporidium treatment requirements for unfiltered PWSs in today's rule and for requiring the use of two disinfectants.

a. *Basis for Cryptosporidium treatment requirements.* As described in section III, available data suggest that unfiltered PWSs must take additional steps to achieve public health protection against Cryptosporidium equivalent to that provided by filtered PWSs.

In occurrence data from the ICR, the median Cryptosporidium level in unfiltered PWS sources was 0.0079 oocysts/L, which is approximately 10

times less than the median level of 0.052 oocysts/L in filtered PWS sources. In translating these source water levels to finished water concentrations, EPA and the Advisory Committee assumed that conventional filtration treatment plants in compliance with the IESWTR or LT1ESWTR achieve an average of 3-log (99.9 percent) removal of Cryptosporidium. Existing regulations do not require unfiltered PWSs to provide any treatment for Cryptosporidium.

If the median source water Cryptosporidium level in filtered PWSs is approximately 10 times higher than in unfiltered PWSs, and filtered PWSs achieve 3-log Cryptosporidium removal, then the median finished water Cryptosporidium level in filtered PWSs is approximately 100 times lower than in unfiltered PWSs. Thus, these data suggest that most unfiltered PWSs must provide 2-log Cryptosporidium treatment to ensure equivalent public health protection.

Some unfiltered PWSs must provide greater than 2-log Cryptosporidium treatment to ensure equitable protection, depending on their source water level. Under today's rule, the Cryptosporidium treatment requirements for filtered PWSs, as described in section IV.B.1, will achieve mean finished water Cryptosporidium levels of less than 1 oocyst/10,000 L. An unfiltered PWS with a mean source water Cryptosporidium concentration above 0.01 oocysts/L would have to provide at least 3-log inactivation to achieve an equivalent finished water Cryptosporidium level.

As stated earlier, EPA has determined that UV light is a feasible technology for PWSs of all sizes, including unfiltered PWSs, to inactivate Cryptosporidium. In addition, treating for Cryptosporidium using ozone is feasible for some unfiltered PWSs. Inactivating Cryptosporidium with chlorine dioxide, while allowed under today's rule, does not appear to be feasible for most unfiltered PWSs due to regulatory limits on chlorite—a chlorine dioxide byproduct.

Based on these findings, today's rule requires all unfiltered PWSs to provide at least 2-log Cryptosporidium inactivation, and to provide at least 3-log inactivation if the mean source water level exceeds 0.01 oocysts/L. These treatment requirements will ensure that unfiltered PWSs achieve public health protection against Cryptosporidium that is comparable to filtered PWSs in the finished water that is distributed to consumers.

Available data indicate that no unfiltered PWSs will show measured

mean source water Cryptosporidium levels of 0.075 oocysts/L or higher—the level at which a filtered PWS must provide at least 4-log Cryptosporidium under today's rule. Consequently, EPA is not establishing treatment requirements in today's rule to address Cryptosporidium at this higher level. Under existing regulations (40 CFR 141.171 and 141.521), unfiltered PWSs must maintain a watershed control program that minimizes the potential for contamination by Cryptosporidium oocysts in the source water. If the measured mean Cryptosporidium level in an unfiltered PWS is 0.075 oocysts/L or higher, EPA believes the State should critically evaluate the adequacy of the watershed control program.

Under today's rule, unfiltered PWSs using ozone or chlorine dioxide to treat for Cryptosporidium must demonstrate the required 2- or 3-log inactivation every day the PWS serves water to the public, except any one day each month. Existing regulations (40 CFR 141.72(a)(1)) require unfiltered PWSs to ensure inactivation of 3-log *Giardia lamblia* and 4-log viruses every day except any one day per month. Consequently, today's rule extends this compliance standard to Cryptosporidium inactivation.

For unfiltered PWSs that use UV to treat for Cryptosporidium, today's rule requires demonstration of the required 2- or 3-log inactivation in at least 95 percent of the water delivered to the public every month. EPA intends this standard to be comparable to the "every day except any one day per month" standard established for ozone and chlorine dioxide. Because UV disinfection systems will typically consist of multiple reactors that will be monitored continuously, EPA believes that a compliance standard based on the percentage of water disinfected to the required level is more appropriate than a single daily measurement. Section IV.D describes an equivalent standard for filtered PWSs.

b. *Basis for requiring the use of two disinfectants.* Unfiltered PWSs must use at least two different disinfectants to meet the inactivation requirements for Cryptosporidium (2- or 3-log), *Giardia lamblia* (3-log) and viruses (4-log), and each of two disinfectants must achieve by itself the total inactivation required for one of these target pathogens. For example, a PWS could use UV light to achieve 3-log inactivation of *Giardia lamblia* and Cryptosporidium and use chlorine to provide 4-log virus inactivation. The use of two disinfectants protects public health by creating multiple barriers against microbial pathogens. This has two

general advantages over a single barrier: improved reliability and a broader spectrum of efficacy.

Because unfiltered PWSs rely solely on inactivation for microbial treatment, an unfiltered PWS using only one disinfectant would provide no primary microbial treatment if that disinfection process were to fail. While disinfection processes should be designed for a high level of reliability, they are not generally 100 percent reliable. Existing regulations and today's rule recognize this limitation by allowing unfiltered PWSs to fail to achieve required disinfection levels one day per month. Consequently, EPA believes that for effective public health protection, unfiltered PWSs should use at least two primary disinfection processes. If one process fails, a second process will provide some degree of protection against pathogens.

A second advantage of a PWS using multiple disinfectants is that this approach will typically be more effective against a broad spectrum of pathogens. The efficacy of different disinfectants against different types of pathogens varies widely. For example, UV light appears to be very effective for inactivating protozoa like *Cryptosporidium* and *Giardia lamblia*, but is less effective against certain enteric viruses like adenovirus. Chlorine, however, is highly effective against enteric viruses but less effective against protozoa. As a result, multiple disinfectants will generally provide more effective inactivation of a wide range of pathogens than a single disinfectant.

*c. Filtration avoidance.* Today's rule does not withdraw or modify any existing criteria for avoiding filtration under 40 CFR 141.71. Accordingly, unfiltered PWSs must continue to comply with all existing filtration avoidance criteria. EPA believes these criteria help to ensure that watershed protection provides a microbial barrier in those PWSs that do not filter.

Further, today's rule does not establish any new criteria for filtration avoidance. In the proposed LT2ESWTR, EPA indicated that compliance with DBP standards under the Stage 2 DBPR would be incorporated into the criteria for filtration avoidance. However, EPA has not done this in today's final rule in order to give States more flexibility in working with unfiltered PWSs to comply with the Stage 2 DBPR.

### 3. Summary of Major Comments

EPA received significant public comment on the following treatment requirements for unfiltered PWSs in the LT2ESWTR proposal: the requirement

for all unfiltered PWSs to provide at least 2-log *Cryptosporidium* inactivation, treatment requirements for unfiltered PWSs with high *Cryptosporidium* levels, and the requirement for unfiltered PWSs to use at least two disinfectants. A summary of these comments and EPA's responses follows.

Several commenters supported the requirement that all unfiltered PWSs achieve at least 2-log inactivation of *Cryptosporidium*, noting that this was part of the Agreement in Principle (USEPA 2000a). Some commenters, however, requested that EPA not establish a minimum *Cryptosporidium* treatment level due to the following factors: monitoring of unfiltered PWS sources has shown very low levels of *Cryptosporidium*, and some sources may have no *Cryptosporidium*; the *Cryptosporidium* in an unfiltered PWS source are likely to be of non-human origin and are less likely to infect humans; and disease incidence data have not established a link between unfiltered PWSs and cryptosporidiosis in consumers.

In response, EPA continues to believe that all unfiltered PWSs should provide treatment for *Cryptosporidium* to protect public health. Monitoring has shown that unfiltered PWS sources are contaminated with *Cryptosporidium*, and no source is likely to be entirely free of *Cryptosporidium* due to the ubiquity of *Cryptosporidium* in both human and many animal populations. Studies, such as those cited in section III, have established that *Cryptosporidium* from animals can infect humans. EPA does not regard the absence of cryptosporidiosis cases attributed to drinking water in a particular community as evidence that no treatment for *Cryptosporidium* is needed. As described in section III, cryptosporidiosis incidence data generally do not indicate overall disease burden because most cases are undetected, unreported, and not traced to a particular source.

Some commenters recommended that EPA require only 1-log *Cryptosporidium* inactivation for unfiltered PWSs that demonstrate source water levels below 0.001 oocysts/L. EPA does not support this approach, though, due to concerns with the reliability of monitoring to establish such an extremely low level of *Cryptosporidium*. In addition, UV light is a feasible technology for unfiltered PWSs of all sizes to achieve at least 2-log *Cryptosporidium* inactivation. For these reasons, EPA has concluded that the minimum *Cryptosporidium* treatment level should be 2-log, as

recommended by the Advisory Committee.

In the proposed LT2ESWTR, EPA requested comment on the treatment that should be required if an unfiltered PWS measured a *Cryptosporidium* level of 0.075 oocysts/L or higher—the concentration at which a filtered PWS must provide at least 4-log treatment. Several commenters supported equivalent treatment requirements (i.e., at least 4-log reduction) for unfiltered and filtered PWSs with *Cryptosporidium* at this level. Other commenters stated that available data indicate no unfiltered PWSs are likely to measure *Cryptosporidium* at such a high level.

EPA agrees that available data on *Cryptosporidium* occurrence suggest that no unfiltered PWSs will measure a mean level of 0.075 oocysts/L or higher. Moreover, establishing a 4-log treatment requirement on the precautionary basis that an unfiltered PWS might measure a high level of *Cryptosporidium* has a significant cost—it would require any unfiltered PWS to provide 4-log, rather than 3-log, inactivation to avoid *Cryptosporidium* monitoring. EPA expects that many small unfiltered PWSs will choose to provide 3-log *Cryptosporidium* inactivation rather than monitor for *Cryptosporidium*. Accordingly, EPA has concluded that establishing a 4-log *Cryptosporidium* treatment requirement for unfiltered PWSs that measure a *Cryptosporidium* level of 0.075 oocysts/L or higher is unnecessary and inappropriate at this time. In the event that an unfiltered PWS does measure *Cryptosporidium* at this level, the State can require the PWS to take steps to reduce the contamination under existing watershed control program requirements for unfiltered PWSs.

Some commenters supported the requirement for unfiltered PWSs to use at least two disinfectants to meet overall inactivation requirements for *Cryptosporidium*, *Giardia lamblia*, and viruses and for each disinfectant to achieve the total inactivation required for one target pathogen. These commenters stated that this requirement will improve inactivation against a wide variety of pathogens and increase treatment reliability. Other commenters, though, opposed this requirement for a number of reasons: it will unnecessarily limit the ability of PWSs to minimize DBPs, there is no similar requirement for filtered PWSs, the requirement for each disinfectant to achieve the total inactivation for one pathogen goes beyond the Agreement in Principle, and EPA has not provided a risk analysis to justify the requirement.

In response, EPA believes that the benefits of both redundancy and a broad spectrum of microbial protection justify requiring the use of two disinfectants. Further, requiring each disinfectant to achieve the full inactivation of one target pathogen establishes a minimal performance level so that each disinfectant will serve as a substantive barrier. In most cases, PWSs will comply with this requirement by using UV or ozone to inactivate *Giardia lamblia* and *Cryptosporidium* and using chlorine to inactivate viruses.

#### D. Options for Systems To Meet *Cryptosporidium* Treatment Requirements

##### 1. Microbial Toolbox Overview

Today's rule includes a variety of treatment and control options, collectively termed the "microbial toolbox," that PWSs can implement to comply with additional *Cryptosporidium* treatment requirements. Options in the microbial toolbox include source protection and management programs, prefiltration processes, treatment performance programs, additional filtration components, and inactivation technologies. The Stage 2 M-DBP Advisory Committee recommended the microbial toolbox to provide PWSs with broad flexibility in selecting cost-effective LT2ESWTR compliance strategies.

Most options in the microbial toolbox carry prescribed credits toward *Cryptosporidium* treatment requirements. PWSs receive these credits by demonstrating compliance with required design and operational criteria, which are described in the

sections that follow. In addition, States may award treatment credits other than the prescribed credit through a "demonstration of performance," which involves site-specific testing by a PWS with a State-approved protocol. Under a demonstration of performance, a State may award credit to a treatment plant or to a unit process of a treatment plant that is higher or lower than the prescribed credit. This option also allows States to award credit to a unit process that does not meet the design and operational criteria in the microbial toolbox for prescribed credit.

To be eligible for treatment credit for a microbial toolbox option, PWSs must initially report compliance with design criteria, where required, to the State (some options do not require design criteria). Thereafter, for most options, PWSs must report compliance with required operational criteria to the State each month (the watershed control program option requires yearly reporting). Failure by a PWS in any month to demonstrate treatment credit equal to or greater than its *Cryptosporidium* treatment requirements under today's rule is a treatment technique violation. This violation lasts until the PWS demonstrates that it is meeting criteria for sufficient treatment credit to satisfy its *Cryptosporidium* treatment requirements.

As described in section IV.B, filtered PWSs may use any option or combination of options from the microbial toolbox to comply with the additional *Cryptosporidium* treatment requirements of Bin 2. PWSs in Bins 3 or 4 must achieve at least 1-log of the additional *Cryptosporidium* treatment

requirement by using ozone, chlorine dioxide, UV, membranes, bag filtration, cartridge filtration, or bank filtration.

If allowed by the State, PWSs may use different microbial toolbox options in different months to comply with *Cryptosporidium* treatment requirements under today's rule. For example, a PWS in Bin 2, which requires 1-log additional *Cryptosporidium* treatment, could comply with this requirement in one month using "individual filter performance," which carries a 1-log credit; in a subsequent month, this PWS could use "combined filter performance" and "presedimentation basin with coagulation," which each carry 0.5-log credit. This approach is intended to provide greater operational flexibility to PWSs. It allows a PWS to receive treatment credit for a microbial toolbox option in any month the PWS is able to meet required operational criteria, even if the PWS does not meet these criteria during all months of the year.

Table IV.D-1 summarizes prescribed treatment credits and associated design and operational criteria for microbial toolbox options. The sections that follow describe each toolbox option in detail. In addition, EPA has developed three guidance documents to assist PWSs with selecting and implementing microbial toolbox options: *Toolbox Guidance Manual*, *UV Disinfection Guidance Manual*, and *Membrane Filtration Guidance Manual*. Each may be acquired from EPA's Safe Drinking Water Hotline, which can be contacted as described under **FOR FURTHER INFORMATION CONTACT** at the beginning of this notice.

TABLE IV.D-1.—MICROBIAL TOOLBOX: OPTIONS, CREDITS AND CRITERIA

Toolbox option	<i>Cryptosporidium</i> treatment credit with design and operational criteria <sup>1</sup>
<b>Source Protection and Management Toolbox Options</b>	
Watershed control program .....	0.5-log credit for State-approved program comprising required elements, annual program status report to State, and regular watershed survey. Unfiltered PWSs are not eligible for credit.
Alternative source/intake management.	No prescribed credit. PWSs may conduct simultaneous monitoring for treatment bin classification at alternative intake locations or under alternative intake management strategies.
<b>Prefiltration Toolbox Options</b>	
Presedimentation basin with coagulation.	0.5-log credit during any month that presedimentation basins achieve a monthly mean reduction of 0.5-log or greater in turbidity or alternative State-approved performance criteria. To be eligible, basins must be operated continuously with coagulant addition and all plant flow must pass through basins.
Two-stage lime softening .....	0.5-log credit for two-stage softening where chemical addition and hardness precipitation occur in both stages. All plant flow must pass through both stages. Single-stage softening is credited as equivalent to conventional treatment.
Bank filtration .....	0.5-log credit for 25-foot setback; 1.0-log credit for 50-foot setback; horizontal and vertical wells only; aquifer must be unconsolidated sand containing at least 10 percent fines (as defined in rule); average turbidity in wells must be less than 1 NTU. PWSs using existing wells followed by filtration must monitor the well effluent to determine bin classification and are not eligible for additional credit.

TABLE IV.D-1.—MICROBIAL TOOLBOX: OPTIONS, CREDITS AND CRITERIA—Continued

Toolbox option	Cryptosporidium treatment credit with design and operational criteria <sup>1</sup>
<b>Treatment Performance Toolbox Options</b>	
Combined filter performance .....	0.5-log credit for combined filter effluent turbidity less than or equal to 0.15 NTU in at least 95 percent of measurements each month.
Individual filter performance .....	0.5-log credit (in addition to 0.5-log combined filter performance credit) if individual filter effluent turbidity is less than or equal to 0.15 NTU in at least 95 percent of samples each month in each filter and is never greater than 0.3 NTU in two consecutive measurements in any filter.
Demonstration of performance .....	Credit awarded to unit process or treatment train based on a demonstration to the State with a State-approved protocol.
<b>Additional Filtration Toolbox Options</b>	
Bag and cartridge filters .....	Up to 2-log credit with demonstration of at least 1-log greater removal in a challenge test when used singly. Up to 2.5-log credit with demonstration of at least 0.5-log greater removal in a challenge test when used in series.
Membrane filtration .....	Log credit equivalent to removal efficiency demonstrated in challenge test for device if supported by direct integrity testing.
Second stage filtration .....	0.5-log credit for second separate granular media filtration stage if treatment train includes coagulation prior to first filter.
Slow sand filters .....	2.5-log credit as a secondary filtration step; 3.0-log credit as a primary filtration process. No prior chlorination.
<b>Inactivation Toolbox Options</b>	
Chlorine dioxide .....	Log credit based on measured CT in relation to CT table.
Ozone .....	Log credit based on measured CT in relation to CT table.
UV .....	Log credit based on validated UV dose in relation to UV dose table; reactor validation testing required to establish UV dose and associated operating conditions.

<sup>1</sup> Table provides summary information only; refer to following preamble and regulatory language for detailed requirements.

## 2. Watershed Control Program

### a. Today's Rule

Filtered PWSs can receive 0.5-log credit toward Cryptosporidium treatment requirements under today's rule for implementing a State-approved watershed control program designed to reduce the level of Cryptosporidium. To be eligible to receive this credit initially, PWSs must perform the following steps:

- Notify the State of the intent to develop a new or continue an existing watershed control program for Cryptosporidium treatment credit no later than two years prior to the date the PWS must comply with additional Cryptosporidium treatment requirements under today's rule.
- Submit a proposed watershed control plan to the State for approval no later than one year prior to the date the PWS must comply with additional Cryptosporidium treatment requirements under today's rule. The watershed control plan must contain these elements:

(1) The designation of an "area of influence" in the watershed, which is defined as the area outside of which the likelihood of Cryptosporidium contamination affecting the treatment plant intake is not significant;

(2) The identification of both potential and actual sources of Cryptosporidium contamination, including a qualitative assessment of the relative impact of

these contamination sources on water quality at the treatment plant intake;

(3) An analysis of control measures that could mitigate the sources of Cryptosporidium contamination, including the relative effectiveness of control measures in reducing Cryptosporidium loading to the source water and their feasibility; and

(4) A statement of goals and specific actions the PWS will undertake to reduce source water Cryptosporidium levels, including a description of how the actions will contribute to specific goals, watershed partners and their roles, resource requirements and commitments, and a schedule for plan implementation.

If the State approves the watershed control plan for Cryptosporidium treatment credit, PWSs must perform the following steps to be eligible to maintain the credit:

- Submit an annual watershed control program status report to the State no later than a date specified by the State. The status report must describe the following: (1) how the PWS is implementing the approved watershed control plan; (2) the adequacy of the plan to meet its goals; (3) how the PWS is addressing any shortcomings in plan implementation; and (4) any significant changes that have occurred in the watershed since the last watershed sanitary survey.

- Notify the State prior to making any significant changes to the approved watershed control plan. If any change is likely to reduce the planned level of source water protection, the PWS must include in this notification a statement of actions that will be taken to mitigate this effect.

- Perform a watershed sanitary survey no less frequently than the PWS must undergo a sanitary survey under 40 CFR 142.16(b)(3)(i), which is every three to five years, and submit the survey report to the State for approval. The State may require a PWS to perform a watershed sanitary survey at an earlier date if the State determines that significant changes may have occurred in the watershed since the previous sanitary survey. A person approved by the State must conduct the watershed sanitary survey and the survey must meet applicable State guidelines. The watershed sanitary survey must encompass the area of influence as identified in the State-approved watershed control plan, assess the implementation of actions to reduce source water Cryptosporidium levels, and identify any significant new sources of Cryptosporidium.

PWSs are eligible to receive Cryptosporidium treatment credit under today's rule for preexisting watershed control programs (e.g., programs in place at the time of rule promulgation).



To be eligible for credit, such programs must meet the requirements stated in this section and the watershed control plan must address future actions that will further reduce source water *Cryptosporidium* levels.

If the State determines that a PWS is not implementing the approved watershed control plan (i.e., the PWS is not carrying out the actions on the schedule in the approved plan), the State may revoke the *Cryptosporidium* treatment credit for the watershed control program. Failure by a PWS to demonstrate treatment credit at least equal to its *Cryptosporidium* treatment requirement under today's rule due to such a revocation of credit is a treatment technique violation. The violation lasts until the State determines that the PWS is implementing an approved watershed control plan or is otherwise achieving the required level of *Cryptosporidium* treatment credit.

PWSs must make the approved watershed control plan, annual status reports, and watershed sanitary surveys available to the public upon request. These documents must be in a plain language style and include criteria by which to evaluate the success of the program in achieving plan goals. If approved by the State, the PWS may withhold portions of these documents based on security considerations.

Unfiltered PWSs are not eligible to receive *Cryptosporidium* treatment credit for a watershed control program under today's rule. Under existing regulations (40 CFR 141.71), unfiltered PWSs must maintain a watershed control program that minimizes the potential for contamination by *Cryptosporidium* as a condition for avoiding filtration.

#### *b. Background and Analysis*

*Cryptosporidium* enters drinking water through fecal contamination of PWS source waters. Implementing a watershed control program that reduces or treats sources of fecal contamination in PWS sources will benefit public health by lowering the exposure of drinking water consumers to *Cryptosporidium* and other pathogenic microorganisms. In addition, a watershed control program may enhance treatment plant management practices through generating knowledge of the sources, fate, and transport of pathogens.

The Stage 2 M-DBP Advisory Committee recommended 0.5-log *Cryptosporidium* treatment credit for a watershed control program (USEPA 2000a), and the August 11, 2003 proposal included criteria for PWSs to receive this credit (USEPA 2003a). The

following discussion summarizes the basis for this credit and for differences in associated requirements between the proposal and today's final rule.

The efficacy of a watershed control program in reducing levels of *Cryptosporidium* and other microbial pathogens depends on the ability of a PWS to identify and control sources of fecal contamination. The fecal sources that are significant in a particular watershed and the control measures that will be effective in mitigating these sources are site specific. Consequently, EPA believes that States should determine whether a watershed control program developed by a PWS to reduce *Cryptosporidium* contamination warrants 0.5-log treatment credit. Accordingly, today's rule requires State approval of watershed control programs for PWSs to receive credit.

If a PWS intends to implement a watershed control program to comply with *Cryptosporidium* treatment requirements under today's rule, EPA believes the PWS should notify the State at least two years prior to the required treatment compliance date. This notification will give the State an opportunity to communicate with the PWS regarding site-specific considerations for a watershed control program. Further, the PWS should submit the proposed watershed control plan to the State for approval at least one year prior to the treatment compliance date. This schedule will give the State time to evaluate the program for approval and, if necessary, allow the PWS to make modifications necessary for approval. Thus, today's rule establishes these reporting deadlines.

The required elements for a watershed control plan in today's rule are the minimum necessary for a program that will be effective in reducing levels of *Cryptosporidium* and other pathogens in a treatment plant intake. These elements include defining the area of the watershed where contamination can affect the intake water quality, identifying sources of contamination within this area, evaluating control measures to reduce contamination, and developing an action plan to implement specific control measures.

EPA encourages PWSs to leverage other Federal, State, and local programs in developing the elements of their watershed control plans. For example, SDWA section 1453 requires States to carry out a source water assessment program (SWAP) for PWSs. Depending on how a State implements this program, the SWAP may be used to define the area of influence in the watershed and identify actual and

potential contamination sources. In 2002, EPA launched the Watershed Initiative (67 FR 36172, May 23, 2002) (USEPA 2002b), which will provide grants to support watershed-based approaches to preventing, reducing, and eliminating water pollution. In addition, EPA recently promulgated regulations for Concentrated Animal Feeding Operations that will limit discharges that contribute microbial pathogens to watersheds.

Many PWSs do not control the watersheds of their sources of supply. Their watershed control plans should involve partnerships with watershed landowners and government agencies that have authority over activities in the watershed that may contribute *Cryptosporidium* to the water supply. Stakeholders that control activities that could contribute to *Cryptosporidium* contamination include municipal government and private operators of wastewater treatment plants, livestock farmers and persons who spread manure, individuals with failing septic systems, logging operations, and other government and commercial organizations.

After a State approves a watershed control plan for a PWS and initially awards 0.5-log *Cryptosporidium* treatment credit, the PWS must submit a watershed control program status report to the State each year. These reports are required for States to exercise oversight and ensure that PWSs implement the approved watershed control plan. They also provide a mechanism for PWSs to work with the States to address any shortcomings or necessary modifications in watershed control plans that are identified after plan approval.

In addition, PWSs must undergo watershed sanitary surveys every three to five years by a State-approved party. These surveys will provide information to PWSs and States regarding significant changes in the watershed that may warrant modification of the approved watershed control plan. Also, they allow for an assessment of watershed control plan implementation.

The proposed rule required watershed sanitary surveys annually, but EPA has reduced the frequency to every three to five years in today's final rule. This frequency is consistent with existing requirements for PWS sanitary surveys. EPA is establishing this longer frequency on the basis that most watersheds will not undergo significant changes over the course of a single year. If significant changes in the watershed do occur, however, PWSs must identify these changes in their annual program status reports. In addition, States have



the authority to require that a watershed sanitary survey be conducted at an earlier date if the State determines that significant changes may have occurred in the watershed since the previous survey.

In the proposed rule, approval of a watershed control program expired after a PWS completed the second round of source water monitoring, and the PWS had to reapply for program approval. Today's final rule, however, does not include this requirement. Instead, today's rule gives States authority to revoke *Cryptosporidium* treatment credit for a watershed control program at any point if a State determines that a PWS is not implementing the approved watershed control plan. EPA believes this approach is preferable to the automatic expiration of credit in the proposed rule for two reasons: (1) It assures PWSs that if they implement the approved watershed control plan, they will maintain the treatment credit; and (2) it gives States the authority to ensure PWSs implement watershed control programs for which they receive treatment credit and to take action at any time if a PWS does not.

EPA believes that PWSs should be eligible to receive *Cryptosporidium* treatment credit for watershed control programs that are in place prior to the treatment compliance date. The same requirements for watershed control program treatment credit apply regardless of whether the program is new or existing at the time the PWS submits the watershed control plan for approval. In the case of existing programs, the watershed control plan must list future activities the PWS will undertake that will reduce source water contamination.

The Toolbox Guidance Manual lists programmatic resources and guidance available to assist PWSs in building partnerships and implementing watershed protection activities. It also incorporates information on the effectiveness of different control measures to reduce *Cryptosporidium* levels and provides case studies of watershed control programs. This guidance is intended to assist both PWSs in developing watershed control programs and States in assessing and approving these programs.

In addition to this guidance and other technical resources, EPA provides funding for watershed and source water protection through the Drinking Water State Revolving Fund (DWSRF) and Clean Water State Revolving Fund (CWSRF). Under the DWSRF program, States may fund source water protection activities by PWSs, including watershed management and pathogen source

reduction plans. CWSRF funds can be used for agricultural best management practices to reduce pathogen loading in receiving waters and for the replacement of failing septic systems.

#### *c. Summary of Major Comments*

Public comments on the August 11, 2003, LT2ESWTR proposal supported the concept of awarding credit towards *Cryptosporidium* treatment requirements for an effective watershed control program. Commenters expressed concerns, however, with specific criteria for awarding this credit, including annual watershed sanitary surveys, re-approval of watershed control programs, standards for existing watershed control programs, and public availability of documents related to the watershed control program. A summary of these comments and EPA's responses follows.

Regarding the proposed requirement for annual watershed sanitary surveys, commenters stated that this frequency is too high because activities to reduce *Cryptosporidium* contamination in the watershed will often take many years to implement. These commenters recommended that watershed sanitary surveys be performed every three to five years in conjunction with PWSs sanitary surveys or longer. In contrast, other commenters supported annual watershed sanitary surveys as being necessary to allow proper responses to new sources of contamination that can occur quickly in watersheds. Such sources can occur through development, new recreation programs, fires, unauthorized activities, and other factors.

While EPA believes that regular watershed sanitary surveys are necessary to identify new sources of contamination and allow States to properly oversee watershed control programs, EPA agrees that significant changes typically will not occur over one year. Therefore, today's final rule requires PWSs that receive *Cryptosporidium* treatment credit for a watershed control program to undergo watershed sanitary surveys every three to five years, rather than every year. To address the concern that new sources of watershed contamination can arise quickly, today's rule requires PWSs to identify any significant changes that have occurred in their watersheds in their annual program status reports. States can then require a watershed sanitary survey at an earlier date if significant changes have occurred since the previous survey.

Many commenters opposed the proposed requirement for PWSs to reapply for approval of their watershed control programs after completing the

second round of source water monitoring. The concern was that this requirement would discourage PWSs from pursuing watershed control programs because they would be uncertain about whether they would continue to receive treatment credit for their programs in the future. As an alternative, commenters recommended that States monitor the progress of PWSs in implementing watershed control programs through the watershed sanitary surveys and annual status reports. A State could then deny treatment credit to a PWS if it failed to demonstrate adequate commitment to its approved watershed control plan.

EPA agrees with these comments and today's final rule does not include a requirement for re-approval of the watershed control program after the second round of monitoring. Instead, PWSs must submit annual program status reports to the State and undergo regular watershed sanitary surveys. If the State determines that a PWS is not implementing its approved watershed control plan on the basis of these measures, it can withdraw the treatment credit associated with the program. PWSs that implement their approved watershed control plans, however, can maintain the associated treatment credit indefinitely under today's rule.

Several commenters stated that PWSs with existing watershed control programs should be eligible for *Cryptosporidium* treatment credit under the same standards that apply to new programs. EPA agrees that both existing and new watershed control programs should be eligible for *Cryptosporidium* treatment credit under the same standards, and today's rule allows this. As is required for new programs, PWSs with existing watershed control programs must submit a watershed control plan that details future activities the PWS will implement to reduce source water contamination. As with new programs, States will have the discretion to approve the proposed watershed control plan for 0.5-log *Cryptosporidium* treatment credit.

With respect to a proposed requirement that the watershed control plan, annual status reports, and watershed sanitary surveys be made available to the public, commenters stated that homeland security concerns are associated with these documents. Homeland security concerns apply to information on the location of treatment plant intakes and other structures. EPA agrees that there are security concerns associated with watershed control program documents. EPA also believes, though, that the public should be allowed to learn about the actions PWSs

plan to take to address *Cryptosporidium* contamination and the progress of PWSs in implementing these actions. Consequently, today's rule requires PWSs to make the approved watershed control plan, annual status reports, and watershed sanitary surveys available to the public. However, PWSs may withhold portions of these documents that raise security concerns with State approval.

### 3. Alternative Source

#### a. Today's Rule

If approved by the State, a PWS may determine its *Cryptosporidium* treatment requirements under today's rule using additional source water monitoring results for an alternative treatment plant intake location or an alternative intake operational strategy. By meeting the requirements of this option, which are described as follows, a PWS may reduce its *Cryptosporidium* treatment requirements under today's rule.

- Monitoring for an alternative intake location or operational strategy, termed "alternative source monitoring," may only be performed in addition to monitoring the existing plant intake(s) (i.e., the intake(s) the PWS uses when it must begin monitoring under today's rule).

- Alternative source monitoring must meet the sample number, sample frequency, and data quality requirements that apply to source water monitoring for bin classification, as described in section IV.A.

- PWSs that perform alternative source monitoring must complete this monitoring by the applicable deadline for treatment bin classification under today's rule, as described in section IV.G. Unless a PWS grandfather monitoring data for the existing plant intake, alternative source monitoring must be performed concurrently with monitoring the existing intake.

- PWSs must submit the results of alternative source monitoring to the State, along with supporting information documenting the location and/or operating conditions under which the alternative source monitoring was conducted. If a PWS fulfills these requirements, the PWS may request that the State classify the PWS in a treatment bin under today's rule using the alternative source monitoring results.

- If the State approves bin classification for a PWS using alternative source monitoring results, the PWS must relocate the plant intake or implement the intake operational strategy to reflect the alternative source monitoring. The PWS must complete

these actions no later than the applicable date for the PWS to comply with *Cryptosporidium* treatment requirements under today's rule. The State may specify reporting requirements to verify operational practices.

Failure by a PWS that is classified in a treatment bin using alternative source monitoring to relocate the intake or implement the new intake operational strategy, as required, by the applicable treatment compliance deadline is a treatment technique violation. This violation lasts until the State determines that the PWS has carried out required changes to the intake location or operation or is providing the level of *Cryptosporidium* treatment required for the existing intake location and operation.

#### b. Background and Analysis

Plant intake refers to the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into a treatment plant. Plants may be able to reduce influent *Cryptosporidium* levels by changing the intake placement (either within the same source or to an alternate source) or managing the timing or level of withdrawal.

The Stage 2 M-DBP Advisory Committee recommended that PWSs be allowed to modify their plant intakes to comply with today's rule, and the August 11, 2003 proposal included this option (USEPA 2000a). The requirements for this option in today's final rule are unchanged from the proposal. The following discussion summarizes the basis for these requirements:

The effect of changing the location or operation of a plant intake on influent *Cryptosporidium* levels can only be ascertained through monitoring. Consequently, EPA is not establishing a prescriptive credit for this option. Rather, if a PWS expects that *Cryptosporidium* levels from a current plant intake will result in a bin classification requiring additional treatment under today's rule, the PWS may conduct additional *Cryptosporidium* monitoring reflecting a different intake location or operational strategy (alternative source monitoring). The PWS may then request that the State approve bin classification for the plant based on alternative source monitoring results, provided the PWS will implement the corresponding changes to the intake location or operation.

PWSs that conduct alternative source monitoring must also monitor their existing plant intakes. Monitoring the

existing intake is required for the State to determine a treatment bin classification for a plant in the event the PWS does not modify the intake (to reflect alternative source monitoring) prior to the treatment compliance deadline under today's rule.

Further, PWSs must conduct alternative source monitoring within the applicable time frame for source water monitoring under today's rule. This approach is required for the State to determine a bin classification for the plant based on alternative source monitoring by the bin classification deadline. In addition, this timing will allow the PWS to modify the intake or implement additional treatment, if necessary, by the treatment compliance deadline. This requirement means, however, that unless a PWS meets the requirement for monitoring its existing intake through grandfathering, the PWS must perform alternative source monitoring concurrently with existing intake monitoring, although it does not have to be on exactly the same schedule.

Because alternative source monitoring will be used for bin classification, this monitoring must comply with all applicable requirements for source water monitoring that are described in section IV.A. Further, the PWS must provide the State with supporting information documenting the conditions, such as the source location, under which the alternative source monitoring was conducted. This documentation is required so that if bin classification is based on alternative source monitoring results, the State can ensure the PWS implements the corresponding modifications to the intake.

#### c. Summary of Major Comments

Public comments on the August 11, 2003, LT2ESWTR proposal supported allowing PWSs to determine treatment bin classification by monitoring for an alternative intake location or operational strategy. Several commenters stated they were unsure if this option would be widely used due to the burden of performing *Cryptosporidium* monitoring at both the current intake and the alternative source. Commenters also recommended that PWSs first conduct source water assessments or watershed sanitary surveys to evaluate intake management strategies to reduce *Cryptosporidium* levels in the plant influent.

In response, EPA believes that PWSs who choose alternative source monitoring must also monitor their current intake so that the State can determine the appropriate bin classification if the PWS does not

subsequently modify its intake. While few PWSs may choose to pursue alternative source monitoring, EPA believes this option should be available for PWSs that elect to do so. EPA agrees that it is appropriate for PWSs to assess contamination sources in the watershed when considering whether to relocate or change the operation of their intakes. The Toolbox Guidance Manual provides direction to PWSs on conducting these assessments.

EPA requested comment on whether representative *Cryptosporidium* monitoring can be performed prior to implementation of a new intake strategy (e.g., monitoring a new source prior to constructing a new intake structure). Commenters stated that there may be situations where allowing *Cryptosporidium* monitoring to demonstrate a reduction in oocyst levels prior to implementation of a new intake strategy is appropriate. Incurring costs for constructing a new intake before determining whether the strategy will reduce oocyst levels is not cost effective. EPA agrees with this comment and today's rule allows PWSs to conduct alternative source monitoring prior to constructing a new intake and to base their bin classification on these monitoring results with State approval.

#### 4. Pre-Sedimentation With Coagulant

##### a. Today's Rule

Presedimentation is a preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant. PWSs receive 0.5-log credit towards *Cryptosporidium* treatment requirements under today's rule for a presedimentation process that meets the following conditions:

- Treats all flow reaching the treatment plant;
- Continuously adds a coagulant to the presedimentation basin;
- Achieves one of the following two performance criteria:

(1) Demonstrates at least 0.5-log mean reduction of influent turbidity. This reduction must be determined using daily turbidity measurements in the presedimentation process influent and effluent and must be calculated as follows:  $\log_{10}$  (monthly mean of daily influent turbidity) —  $\log_{10}$  (monthly mean of daily effluent turbidity).

(2) Complies with State-approved performance criteria that demonstrate at least 0.5-log mean removal of micron-sized particulate material, such as aerobic spores, through the presedimentation process.

PWSs may receive treatment credit for a presedimentation process during any month the process meets these conditions. To be eligible for credit, PWSs must report compliance with these conditions to the State each month. PWSs may earn presedimentation treatment credit for only part of the year if the process does not meet these conditions year-round. In this situation, PWSs must fully meet their *Cryptosporidium* treatment requirements under today's rule using other microbial toolbox options during those months when the PWS does not receive treatment credit for presedimentation.

Alternatively, PWSs may apply to the State for *Cryptosporidium* treatment credit for presedimentation processes using a demonstration of performance, as described in section IV.D.9. Demonstration of performance provides an option for PWSs with presedimentation processes that do not meet these prescribed conditions for treatment credit and for PWSs who seek greater than 0.5-log *Cryptosporidium* treatment credit for their presedimentation processes.

PWSs are not eligible for *Cryptosporidium* treatment credit for a presedimentation process if their sampling point for the source water *Cryptosporidium* monitoring used for bin classification was after (*i.e.*, downstream of) the presedimentation process. In this case, the removal achieved by the presedimentation process will be reflected in the monitoring results and bin classification.

##### b. Background and Analysis

Presedimentation involves passing raw water through retention basins in which particulate material is removed through settling. PWSs use presedimentation to reduce and stabilize particle concentrations prior to the primary clarification and filtration processes in a treatment plant. Presedimentation is often operated at higher hydraulic overflow rates than conventional sedimentation (the sedimentation process that directly precedes filtration in a conventional treatment plant) and may not involve coagulant addition. PWSs may operate a presedimentation process only during periods of high raw water turbidity.

As a process for removing particles, presedimentation can reduce *Cryptosporidium* levels to some degree. In addition, presedimentation can improve the performance of subsequent treatment processes by dampening variability in raw water quality. The efficacy of presedimentation in

removing particles, including *Cryptosporidium*, is influenced by the use of coagulant, the hydraulic loading rate, water quality parameters like temperature and turbidity, and physical characteristics of the sedimentation basin.

The Stage 2 M-DBP Advisory Committee recommended 0.5-log *Cryptosporidium* treatment credit for presedimentation with coagulation (USEPA 2000a). The August 11, 2003 proposal included criteria, which were similar to those in today's final rule, for PWSs to receive this credit (USEPA 2003a). The following discussion summarizes the basis for this credit and for differences in associated requirements between the proposal and today's final rule.

In the proposal, EPA reviewed published studies of *Cryptosporidium* removal through conventional sedimentation processes by Payment and Franco (1993), Kelly et al. (1995), Patania et al. (1995), States et al. (1997), Edzwald and Kelly (1998), and Dugan et al. (2001). These studies included bench-, pilot-, and full-scale processes, and the reported levels of *Cryptosporidium* removal varied widely, ranging from 0.4- to 3.8-log. In addition, these studies also supported two other significant findings:

(1) Proper coagulation significantly improves *Cryptosporidium* removal through sedimentation. In Dugan et al. (2001), for example, average *Cryptosporidium* removal across a sedimentation basin was 1.3-log with optimal coagulation and decreased to 0.2-log when the coagulant dose was insufficient.

(2) The removal of aerobic spores correlates well with the removal of *Cryptosporidium* when a coagulant is present. This indicates that aerobic spores, which are naturally present in surface waters, may be used as an indicator of *Cryptosporidium* removal in coagulated full-scale sedimentation processes.

*Cryptosporidium* removal efficiencies in conventional sedimentation may be higher than in presedimentation due to differences in hydraulic loading rates, coagulant doses, and other factors. EPA identified no published studies of *Cryptosporidium* removal through presedimentation processes. In the proposal, however, EPA evaluated data on the removal of aerobic spores in the presedimentation processes of three PWSs as an indicator of *Cryptosporidium* removal (USEPA 2003a). All three PWSs added a coagulant (polymer, metal salts, or recycled sludge) to the presedimentation process. The mean removal of aerobic spores through presedimentation in the three PWSs ranged from 0.5- to 1.1-log over time

spans ranging from several months to several years.

These data support the finding that full-scale presedimentation processes can achieve *Cryptosporidium* removals of 0.5-log and greater under routine operating conditions and over an extended time period. Accordingly, EPA concluded that 0.5-log *Cryptosporidium* treatment credit for presedimentation processes is appropriate under certain conditions. Today's rule establishes three conditions for PWSs to receive this credit.

The first condition for presedimentation to receive 0.5-log *Cryptosporidium* treatment credit is that the process must treat all flow reaching the treatment plant. Presedimentation cannot reduce the *Cryptosporidium* level entering a treatment plant by 0.5-log or greater on a continuous basis if the process is operated intermittently or treats only a fraction of the plant flow. EPA recognizes that for some PWSs, operating a presedimentation process intermittently in response to high turbidity levels is preferable to continuous operation. By establishing a requirement for continuous operation as a condition for treatment credit, EPA is not recommending against intermittent operation of presedimentation processes. Rather, EPA is only identifying one of the conditions under which a 0.5-log *Cryptosporidium* treatment credit for presedimentation appears to be justified.

A second condition for presedimentation treatment credit is that the process must operate with coagulant addition. Available data support awarding 0.5-log *Cryptosporidium* treatment credit to a presedimentation process only when a coagulant is present. The full-scale presedimentation data reviewed in the proposal involved coagulant addition, and literature studies indicate that *Cryptosporidium* removal through sedimentation can be substantially lower in the absence of sufficient coagulant. Further, the Stage 2 M-DBP Advisory Committee specifically recommended 0.5-log *Cryptosporidium* treatment credit for presedimentation with coagulation (USEPA 2000a). Based on these factors, EPA concluded that coagulation is a necessary condition for PWSs to receive treatment credit for presedimentation.

The third condition for awarding treatment credit to presedimentation is that the process must achieve a monthly mean turbidity reduction of at least 0.5-log or meet alternative State-approved performance criteria. This requirement stems from a recommendation by the SAB, which reviewed data for awarding

treatment credit to presedimentation under the LT2ESWTR. In their report, the SAB concluded that available data were minimal to support 0.5-log prescribed credit for presedimentation and recommended that performance criteria other than overflow rate be included if credit is given for presedimentation (SAB 2003).

In response to this recommendation by the SAB, EPA analyzed the relationship between removal of aerobic spores (as an indicator of *Cryptosporidium* removal) and reduction in turbidity in the full-scale presedimentation processes of three PWSs. The results of this analysis, which are shown in Table IV.D-2, suggest that presedimentation processes achieving a monthly mean reduction in turbidity of at least 0.5-log have a high likelihood of reducing mean *Cryptosporidium* levels by 0.5-log or more. Consequently, EPA concluded that turbidity reduction is an appropriate performance criterion for awarding *Cryptosporidium* treatment credit to presedimentation basins. The Agency believes this performance criterion addresses the concern raised by the SAB.

TABLE IV.D-2.—RELATIONSHIP BETWEEN MEAN TURBIDITY REDUCTION AND THE PERCENT OF MONTHS WHEN MEAN SPORE REMOVAL WAS AT LEAST 0.5 LOG

Log reduction in turbidity (monthly mean)	Percent of months with at least 0.5 Log Mean Reduction in spores (percent)
at least 0.1-log .....	64
at least 0.2-log .....	68
at least 0.3-log .....	73
at least 0.4-log .....	78
at least 0.5-log .....	89
at least 0.6-log .....	91
at least 0.7-log .....	90
at least 0.8-log .....	89
at least 0.9-log .....	95
at least 1.0-log .....	96

Source: Data from Cincinnati Water Works, Kansas City Water Services Department, and St. Louis Water Division.

The proposed rule required PWSs to achieve at least 0.5-log turbidity reduction through presedimentation in at least 11 of the 12 previous consecutive months to be eligible for presedimentation treatment credit. EPA recognizes, however, that some PWSs will not be able to demonstrate at least 0.5-log turbidity reduction through presedimentation during months when raw water turbidity is lower. As a result, these PWSs would not be able to

achieve treatment credit for their presedimentation basins. To provide more options for these PWSs, EPA has modified this requirement in today's final rule in two respects.

The first modification is that in today's final rule, PWSs must demonstrate compliance with the conditions for presedimentation treatment credit on a monthly, rather than a yearly basis. This requirement allows treatment credit for presedimentation in any month a PWS can demonstrate at least 0.5-log turbidity reduction, even if the PWS cannot achieve this level of turbidity reduction in all months of the year.

A PWS that meets the conditions for presedimentation treatment credit for only part of the year must implement other microbial toolbox options to comply with *Cryptosporidium* treatment requirements in the remainder of the year. Nevertheless, achieving presedimentation treatment credit for even part of the year may benefit certain PWSs. For example, a PWS may be able to reduce the level of disinfection it provides during the months it receives presedimentation treatment credit, or this treatment credit may provide a margin of safety to ensure compliance with *Cryptosporidium* treatment requirements.

The second modification is the allowance for States to approve alternative performance criteria to turbidity reduction that demonstrate at least 0.5-log mean removal of micronized particulate material through the presedimentation process. EPA believes that aerobic spores are an appropriate alternative criterion. As described earlier, studies support the use of aerobic spores as an indicator of *Cryptosporidium* removal in coagulated sedimentation processes. If approved by the State, a PWS could receive 0.5-log treatment credit for presedimentation by demonstrating at least 0.5-log reduction in aerobic spores. The Toolbox Guidance Manual provides information on analytical methods for measuring aerobic spores. This may provide an option for PWSs that are not able to demonstrate 0.5-log turbidity reduction but have a sufficient concentration of aerobic spores in their raw water. PWSs may work with States to identify other alternative criteria, as well as appropriate monitoring to support use of the criteria.

#### c. Summary of Major Comments

Public comments on the August 11, 2003, LT2ESWTR proposal supported allowing PWSs to achieve 0.5-log credit towards *Cryptosporidium* treatment requirements for presedimentation with



coagulation. Some commenters also supported the proposed operational, monitoring, and performance conditions required for PWSs to receive this credit. Other commenters, however, opposed the proposed requirement for turbidity reduction as a condition for receiving presedimentation treatment credit. A summary of these commenters' concerns and EPA's responses follows.

Commenters who opposed requiring turbidity reduction for presedimentation treatment credit were concerned that PWSs cannot achieve this criterion during periods when raw water turbidity is low. Further, these commenters stated that turbidity removal does not reflect the overall benefits of presedimentation, which improves the performance of the primary treatment train by equalizing water quality. Some commenters also provided data showing the reduction in turbidity and aerobic spore levels in the presedimentation processes of several PWSs and stated that turbidity removal may not be an appropriate indicator of acceptable performance for presedimentation basins. Several commenters suggested that EPA establish a limit on hydraulic overflow rate in place of a turbidity removal requirement.

In response, EPA continues to believe that 0.5-log turbidity reduction is an appropriate performance indicator for 0.5-log *Cryptosporidium* reduction in presedimentation processes. EPA has reviewed the additional data submitted by commenters on the removal of turbidity and aerobic spores (as an indicator of *Cryptosporidium* removal) in full-scale presedimentation basins. These data are consistent with data reviewed for the proposal in showing that when turbidity removal was below 0.5-log, removal of aerobic spores was also usually below 0.5-log. Conversely, when turbidity reduction exceeded 0.5-log, aerobic spore removal was typically higher than 0.5-log. Consequently, while there is not a one-to-one relationship between reduction in turbidity and reduction in aerobic spores, 0.5-log turbidity reduction is a reasonable indicator of when *Cryptosporidium* removal is likely to be at least 0.5-log.

EPA recognizes, though, that 0.5-log turbidity reduction through presedimentation will not be feasible for some PWSs when raw water turbidity is low. Today's final rule contains several provisions to address this concern. First, PWSs can receive credit for presedimentation during any month the process achieves 0.5-log turbidity removal. Thus, PWSs that cannot achieve 0.5-log turbidity reduction year-round may receive credit for

presedimentation in those months when they can meet this condition. Today's rule also allows PWSs to receive presedimentation credit using State-approved performance criteria other than turbidity reduction. If approved by the State, a PWS may receive credit for presedimentation by demonstrating, for example, 0.5-log reduction in aerobic spores. Finally, if presedimentation improves treatment plant performance by reducing and equalizing particle loading, a PWS can receive additional treatment credit under today's rule for achieving lower filtered water turbidity (see section IV.D.7).

## 5. Two-Stage Lime Softening

### a. Today's Rule

Lime softening in drinking water treatment involves the addition of lime and other chemicals to remove hardness (calcium and magnesium) through precipitation. In single-stage softening, chemical addition and hardness precipitation occur in a single clarification process prior to filtration. In two-stage softening, chemical addition and hardness precipitation occur in each of two sequential clarification processes prior to filtration. In some water treatment plants, a portion of the raw water bypasses a softening process (i.e., split softening) in order to achieve a desired pH and alkalinity level in the treated water.

Under today's rule, single-stage softening with filtration receives a prescribed 3.0-log credit towards *Cryptosporidium* treatment requirements, which is equivalent to conventional treatment (see section IV.B). Two-stage softening receives an additional 0.5-log *Cryptosporidium* treatment credit during any month a PWS meets the following conditions:

- (1) Chemical addition and hardness precipitation occur in two separate and sequential softening stages prior to filtration; and
- (2) Both softening stages treat the entire plant flow taken from surface water sources or GWUDI (i.e., no portion of the plant flow from a surface water source may bypass either softening stage).

Alternatively, PWSs may apply to the State for *Cryptosporidium* treatment credit for softening processes using a demonstration of performance, as described in section IV.D.9. Demonstration of performance provides an option for PWSs with softening processes that do not meet these conditions for prescribed treatment credit and for PWSs who seek greater than the prescribed *Cryptosporidium* treatment credit for their softening processes.

### b. Background and Analysis

Lime softening is a common practice that PWSs use to reduce water hardness, which is primarily calcium and magnesium. The addition of lime elevates the pH of the raw water. Elevation to pH 9.4 or higher causes precipitation of calcium carbonate and further elevation to pH 10.6 or higher causes precipitation of magnesium hydroxide. Soda ash may be added with lime to precipitate non-carbonate hardness. Removal of the precipitate occurs through clarification (e.g., sedimentation basin) and filtration processes. Coagulants and recycled softening sludge are often used to enhance removal. In two-stage softening, the second stage is commonly used to precipitate magnesium, along with increased levels of calcium.

In addition to reducing hardness, softening processes remove particulate material present in the raw water, including microbial pathogens like *Cryptosporidium*. Particulate material flocculates with the softening precipitate and is removed through the clarification and filtration processes, similar to a conventional treatment plant. The degree of *Cryptosporidium* removal will depend on the amount of precipitate formation, the use of coagulants, the raw water quality, and other factors. Available data indicate that the elevated pH used in softening does not inactivate *Cryptosporidium* or *Giardia* (Logsdon et al. 1994, Li et al. 2001), though it does inactivate some microorganisms like viruses (Battigelli and Sobsey, 1993, Logsdon et al. 1994).

The Stage 2 M-DBP Advisory Committee recommended that lime softening be eligible for up to 1.0-log additional *Cryptosporidium* treatment credit based on a site-specific demonstration of performance, but did not recommend any prescribed credit for this process (USEPA 2000a). After reviewing available data, however, EPA included a prescribed 0.5-log *Cryptosporidium* treatment credit for two-stage lime softening in the August 11, 2003 proposal (USEPA 2003a). This approach reflected a recommendation by the SAB, which supported an additional 0.5-log treatment credit for two-stage lime softening if all the water passes through both stages (SAB 2003). The proposal also allowed for greater treatment credit through a demonstration of performance. The following discussion summarizes the basis for the lime softening treatment credit in today's final rule and differences with the proposal.

In the proposal, EPA reviewed a study by Logsdon et al. (1994) that evaluated



Cryptosporidium removal in full-scale lime softening plants. Cryptosporidium was detected in the raw water at 5 plants: one single-stage plant and four two-stage plants. Based on measured levels, the removal of Cryptosporidium across the softening clarification (sedimentation) stages was 1.0-log in the single stage plant and ranged from 1.1- to 2.3-log in the two-stage plants. Cryptosporidium reductions from raw to filtered water were 0.6- and 2.2-log in the single stage plant and ranged from greater than 2.67- to greater than 3.85-log in the two-stage plants.

EPA also evaluated data collected by PWSs on the removal of aerobic spores in full-scale lime softening plants. As discussed earlier, studies have shown the removal of aerobic spores to be an indicator for Cryptosporidium removal, and one pilot-scale study of a softening plant found significantly greater removal of Cryptosporidium than aerobic spores under similar treatment conditions (Clark et al., 2001). For the full-scale plants, average reductions in aerobic spores across the softening clarification stages were 2.4- and 2.8-log for two plants that practice two-stage softening and were 1.6- and 2.4-log for two plants that practice single-stage softening (USEPA 2003a).

The Cryptosporidium removal data from Logsdon et al. (1994) and the aerobic spore removal data provided by PWSs indicate that a lime softening clarification stage can achieve greater than 0.5-log Cryptosporidium removal during routine operation. Consequently, EPA agrees with the SAB recommendation to award an additional 0.5-log Cryptosporidium treatment credit for two-stage softening. Today's rule establishes two-conditions for PWSs to receive this credit.

The first condition for 0.5-log treatment credit for two-stage softening is that chemical addition and hardness precipitation must occur in two separate and sequential softening stages prior to filtration. The purpose of this condition is to ensure that plants receiving additional credit for two-stage softening actually have softening and associated particle removal occurring in each of two sequential clarification stages. Plants with other types of clarification processes in series with a softening stage are not eligible for two-stage softening credit. Such plants may, however, be eligible for additional treatment credit for other microbial toolbox options, such as presedimentation, or may achieve additional credit through a demonstration of performance.

The second condition for two-stage softening treatment credit is that both

softening stages must treat the entire plant flow taken from a surface water source or GWUDI. The SAB recommended this condition, which reflects the understanding that a softening stage is unlikely to reduce overall Cryptosporidium levels by 0.5-log or more if it treats only a fraction of the plant flow.

EPA recognizes that some PWSs using softening will bypass a softening stage in order to maintain a desired pH and alkalinity level in the treated water, and EPA is not recommending against this practice generally. Rather, the restriction on bypassing a softening stage in today's rule applies only to PWSs that seek additional treatment credit for softening. Additionally, plants that soften both surface water and ground water are eligible for softening treatment credit if they bypass a softening stage only with ground water that is not under the direct influence of surface water.

The proposal also required that a coagulant be present in both clarifiers for a PWS to be eligible for additional treatment credit for two-stage softening. EPA is not establishing this requirement in today's final rule. While many PWSs that practice softening add coagulants to improve the removal of precipitates and other particles, the SAB did not recommend coagulant addition as a condition for receiving treatment credit. Further, available data do not indicate that additional coagulant is necessary to achieve at least 0.5-log Cryptosporidium removal across a softening clarification stage if hardness precipitation is occurring.

#### c. Summary of Major Comments

Public comments on the August 11, 2003, LT2ESWTR proposal supported awarding additional Cryptosporidium treatment credit for lime softening processes. EPA received specific comments on the types of lime softening processes eligible for additional treatment credit, the amount of additional treatment credit awarded, and the need for a coagulant. A summary of these commenters' concerns and EPA's responses follows.

In regard to the types of lime softening processes eligible for treatment credit, commenters recommended that EPA better define two-stage softening. Commenters stated that two-stage softening involves two separate reaction chambers with the addition of the softening chemical at the beginning of each chamber. Some commenters recommended that eligibility for additional treatment credit should be based on the level of softening precipitate formed or the

settled water turbidity and not on whether a plant practices single- or two-stage softening. Another commenter recommended that any plant designs with multiple, continuously operated clarification processes in series should be eligible for additional treatment credit.

In response, EPA has refined the definition of two-stage softening in today's final rule, which requires that softening processes employ chemical addition and hardness precipitation in two sequential stages to be eligible for the prescribed additional treatment credit. EPA agrees with commenters that the level of precipitate formation will influence the degree of Cryptosporidium removal. Available data, however, indicate that two-stage softening will generally achieve more Cryptosporidium removal than single-stage softening. Consequently, EPA believes that two-stage softening should be eligible for the additional prescribed 0.5-log treatment credit. Plants with single-stage softening may receive additional treatment credit under today's rule through a demonstration of performance. Similarly, plants that employ multiple clarification process other than softening in series may receive additional treatment credit either as presedimentation or through a demonstration of performance.

With respect to the amount of additional Cryptosporidium treatment credit for two-stage softening, most commenters supported awarding 3.0-log treatment credit to single-stage lime softening, equivalent to a conventional treatment plant, and an additional prescribed 0.5-log treatment credit for two-stage lime softening. A few commenters requested that two-stage lime be granted an additional Cryptosporidium treatment credit of 1.0-log, based on the level of aerobic spore removal measured across softening clarifiers.

EPA agrees with most commenters and the SAB that 0.5-log is an appropriate level of additional prescribed Cryptosporidium treatment credit for two-stage softening. Where plants are able to demonstrate a significantly higher level of removal of Cryptosporidium or an indicator like aerobic spores, they may apply for additional treatment credit through a demonstration of performance.

Commenters stated that achieving particle removal in lime softening is not dependent on a coagulant like a metal salt or organic polymer. Some commenters recommended that coagulant be defined to include softening chemicals like lime and magnesium hydroxide (a softening

precipitate). EPA agrees that available data do not demonstrate the need for a traditional metal salt or organic coagulant for effective particle removal in softening. Accordingly, today's final rule does not require the use of a coagulant as a condition for additional treatment credit in two-stage softening. Instead, each stage must involve chemical addition and hardness precipitation. EPA intends this requirement to ensure that softening and associated particle removal occur in each stage if a plant is to receive additional treatment credit for two-stage softening.

## 6. Bank Filtration

### a. Today's Rule

Bank filtration is a water treatment process that uses one or more pumping wells to induce or enhance natural surface water infiltration and to recover that surface water from the subsurface after passage through a river bed or bank(s). Under today's rule, bank filtration that serves as pretreatment to a filtration plant is eligible for Cryptosporidium treatment credit if it meets the following criteria:

- Wells with a ground water flow path of at least 25 feet receive 0.5-log treatment credit; wells with a ground water flow path of at least 50 feet receive 1.0-log treatment credit. The ground water flow path must be determined as specified in this section.
- Only wells in granular aquifers are eligible for treatment credit. Granular aquifers are those comprised of sand, clay, silt, rock fragments, pebbles or larger particles, and minor cement. A system must characterize the aquifer at the well site to determine aquifer properties. Systems must extract a core from the aquifer and demonstrate that in at least 90 percent of the core length, grains less than 1.0 mm in diameter constitute at least 10 percent of the core material.
- Only horizontal and vertical wells are eligible for treatment credit.
- For vertical wells, the ground water flow path is the measured distance from the edge of the surface water body under high flow conditions (determined by the 100 year floodplain elevation boundary or by the floodway, as defined in Federal Emergency Management Agency flood hazard maps) to the well screen. For horizontal wells, the ground water flow path is the measured distance from the bed of the river under normal flow conditions to the closest horizontal well lateral screen.
- Systems must monitor each wellhead for turbidity at least once every four hours while the bank

filtration process is in operation. If monthly average turbidity levels, based on daily maximum values in the well, exceed 1 NTU, the system must report this result to the State and conduct an assessment within 30 days to determine the cause of the high turbidity levels in the well. If the State determines that microbial removal has been compromised, the State may revoke treatment credit until the system implements corrective actions approved by the State to remediate the problem.

- Springs and infiltration galleries are not eligible for treatment credit under this section, but are eligible for credit under the demonstration of performance provisions described in section IV.D.9.

Alternatively, PWSs may apply to the State for Cryptosporidium treatment credit for bank filtration using a demonstration of performance. States may award greater than 1.0-log Cryptosporidium treatment credit for bank filtration based on a site-specific demonstration. For a bank filtration demonstration of performance study, today's rule establishes the following criteria:

- The study must follow a State-approved protocol and must involve the collection of data on the removal of Cryptosporidium or a surrogate for Cryptosporidium and related hydrogeologic and water quality parameters during the full range of operating conditions.
- The study must include sampling both from the production well(s) and from monitoring wells that are screened and located along the shortest flow path between the surface water source and the production well(s).

The Toolbox Guidance Manual provides guidance on conducting site-specific bank filtration studies, including analytical methods for measuring aerobic and anaerobic spores, which may serve as surrogates for Cryptosporidium removal.

PWSs using existing bank filtration as pretreatment to a filtration plant at the time the PWS must begin source water Cryptosporidium monitoring under today's rule must sample the well for the purpose of determining bin classification. These PWSs are not eligible to receive additional treatment credit for bank filtration. In these cases, the performance of the bank filtration process in reducing Cryptosporidium levels will be reflected in the monitoring results and bin classification.

PWSs using bank filtration without additional filtration must collect source water samples in the surface water (i.e., prior to bank filtration) to determine bin

classification unless the State approves an alternative monitoring location. This applies to systems using bank filtration to meet the Cryptosporidium removal requirements of the IESWTR or LT1ESWTR under the provisions for alternative filtration demonstration in 40 CFR 141.173(b) or 141.552(a). Bank filtration criteria for Cryptosporidium removal credit under today's rule do not apply to existing State actions regarding alternative filtration Cryptosporidium removal credit for IESWTR or LT1ESWTR compliance. PWSs using GWUDI sources must collect samples from the well (i.e., the ground water).

### b. Background and Analysis

Bank filtration is a water treatment process that makes use of surface water that has naturally infiltrated into ground water through a river bed or bank and is recovered via a pumping well. River bed infiltration is typically enhanced by the pumping action of nearby wells. Bank filtrate is water that is drawn into a pumping well from a nearby surface water source after having traveled through the subsurface (i.e., aquifer) and mixing with other ground water. In bank filtration, microorganisms and other particles are removed by contact with the aquifer materials.

The Stage 2 M-DBP Advisory Committee recommended a prescribed Cryptosporidium treatment credit of 1.0-log for bank filtration with the option for PWSs to receive greater treatment credit through a site-specific demonstration of performance (USEPA 2000a). The August 11, 2003 proposal included criteria, similar to those in today's final rule, for PWSs to receive prescribed treatment credits of 0.5- and 1.0-log (USEPA 2000a). The following discussion summarizes the basis for these credits and for differences in associated requirements between the proposal and today's final rule.

Directly measuring the removal of Cryptosporidium through bank filtration is difficult due to the relatively low oocyst concentrations typically present in surface and ground water. In the proposal, EPA reviewed bank filtration field studies that measured the removal of Cryptosporidium surrogates, specifically aerobic and anaerobic bacterial endospores (Havelaar et al. 1995, Rice et al. 1996, Pang et al. 1998, Arora et al. 2000, Medema et al. 2000, and Wang et al. 2001). These microorganisms are suitable surrogates because they are resistant to inactivation in the subsurface, similar in size and shape to Cryptosporidium, and present in both surface and ground water at concentrations that allow calculation of log removal across the surface water-

ground water interface and within the aquifer. In addition, EPA reviewed studies of the transport of *Cryptosporidium* through soil materials in laboratory column studies (Harter et al. 2000).

Based on these studies, EPA concluded that bank filtration processes can achieve significant *Cryptosporidium* removal and that prescribed *Cryptosporidium* treatment credits of 0.5-log and 1.0-log are appropriate under certain conditions. These conditions are as follows: Only wells located in unconsolidated, predominantly sandy aquifers are eligible.

The bank filtration removal process performs most efficiently when the aquifer is comprised of granular materials with open pore-space for water flow around the grains. In these granular porous aquifers, the flow path is meandering, thereby providing ample opportunity for microorganisms to come into contact with and attach to a grain surface. Accordingly, only wells located in unconsolidated, granular aquifers are eligible for bank filtration treatment credit.

Granular aquifers are those comprised of sand, clay, silt, rock fragments, pebbles or larger particles and minor cement. Specifically, a PWS must extract a core from the aquifer and demonstrate that in at least 90 percent of the core length, grains less than 1.0 mm in diameter constitute at least 10 percent of the core material. Laboratory column studies of *Cryptosporidium* transport (Harter et al., 2000) and field studies of aerobic bacterial endospore passage in the subsurface (Pang et al., 1998) support these criteria.

#### *Only Horizontal and Vertical Wells Are Eligible*

A number of devices are used for the collection of ground water including horizontal and vertical wells, spring boxes, and infiltration galleries. Among these, only horizontal and vertical wells are eligible for log removal credit because spring boxes and infiltration galleries are components of engineered systems designed to speed transport through or by-pass the naturally protective riverbed or bank.

#### *Wells Must be Located 25 Feet From the Surface Water Source To Be Eligible for 0.5-Log Credit and Located at Least 50 Feet From the Surface Water Source To Be Eligible for 1.0-Log Credit*

A vertical or horizontal well located adjacent to a surface water body is eligible for bank filtration credit if there is sufficient ground water flow path length to effectively remove oocysts.

Specifically, the ground water flow path must be at least 25 feet and 50 feet for 0.5-log and 1.0-log *Cryptosporidium* treatment credit, respectively. The ground water flow path to a vertical well is the measured distance from the edge of the surface water body under high flow conditions (determined by the 100 year floodplain elevation boundary or floodway, as defined in Federal Emergency Management Agency flood hazard maps) to the wellhead. The ground water flow path to a horizontal well is the measured distance from the bed of the river under normal flow conditions to the closest horizontal well lateral.

These required flow path distances for *Cryptosporidium* treatment credit are based on pathogen and surrogate monitoring data from bank filtration field studies (Wang et al. 2001, Havelaar et al. 1995, Medema et al. 2000). Results from these studies show that significant removal of anaerobic and aerobic spores can occur during passage across the surface water—ground water interface, with lesser removal occurring during ground water transport within the aquifer away from that interface. The ground water—surface water interface is usually comprised of finer grained material that lines the bottom of the riverbed. Typically, the thickness of the interface is small, ranging from a few inches to a foot.

These results suggest that during normal and low surface water elevations, the surface water-ground water interface will perform effectively to remove microbial contamination like *Cryptosporidium*. During short periods of flooding, substantially lower removal rates may occur due to scouring of the riverbed and removal of the protective, fine-grained material. Assessing the mean *Cryptosporidium* removal that a bank filtration process will achieve over the period of a year requires consideration of both high and low removal periods. By considering all time intervals with differing removal rates over the period of a year, EPA concluded that 0.5-log removal over 25 feet and 1.0-log removal over 50 feet are appropriate estimates of the mean performance of a bank filtration process (USEPA 2003a).

#### *Wells Must Be Continuously Monitored for Turbidity*

Similar pathogen removal mechanisms are expected to occur in slow sand filtration and bank filtration. Under the 40 CFR 141.73(b)(1), the turbidity level of slow sand filtered water must be 1 NTU or less in 95 percent of the measurements taken each month. Turbidity sampling is required

once every four hours, but may be reduced to once per day under certain conditions. Just as turbidity monitoring is used to provide assurance that the removal credit assigned to a slow sand filter is being realized, today's rule requires turbidity monitoring at least once every 4 hours for all bank filtration wells that receive treatment credit.

If monthly average turbidity levels (based on daily maximum values in the well) exceed 1 NTU, the PWS must report this result to the State and conduct an assessment to determine the cause of the high turbidity levels in the well. If the State determines that microbial removal has been compromised, the State may revoke treatment credit until the PWS implements corrective actions to remediate the problem.

#### *Demonstration of Performance*

EPA recognizes that some bank filtration processes may achieve mean *Cryptosporidium* removal greater than 1-log. Consequently, today's rule allows PWSs to receive greater than 1.0-log *Cryptosporidium* treatment credit for bank filtration through a State-approved demonstration of performance study. This allowance is a change from the proposed rule, which did not explicitly recognize demonstration of performance for bank filtration (USEPA 2003a). This change reflects EPA's agreement with public comment, described next, which recommended that EPA explicitly recognize the option to conduct a bank filtration performance study for greater than 1.0-log treatment credit.

A demonstration of performance study must involve the collection of data on the removal of *Cryptosporidium* or surrogates and related hydrogeologic and water quality parameters during the full range of operating conditions. PWSs must sample from both the production well(s) and one or more monitoring wells that are screened and located along the shortest flow path between the surface water and the production well(s). This will allow determination of the removal efficiency of the aquifer.

Because directly measuring *Cryptosporidium* removal will not be feasible for most PWSs, today's rule allows PWSs to sample for a State-approved indicator, such as aerobic bacterial endospores. Research has shown that aerobic spores can be very mobile in the subsurface environment (Pang et al. 1998), and data collected by Wang et al. (2001) indicate that aerobic spores are present in some surface waters in sufficient quantity to allow measurement of log removal values.

EPA has provided guidance on conducting site-specific bank filtration

studies in the Toolbox Guidance Manual. This guidance discusses data needs and analysis for a performance demonstration so that the State may tailor the study plan to meet site-specific hydrogeological and operational conditions.

In summary, EPA believes that full-scale field data support prescribed Cryptosporidium treatment credit up to 1.0-log for bank filtration under the required conditions for set-back distance, aquifer material, collection device type, and turbidity monitoring. Demonstration of performance provides an appropriate opportunity for States to award higher Cryptosporidium treatment credit for bank filtration on a site-specific basis.

For PWSs using bank filtration when they must conduct source water monitoring for bin classification, the required sampling locations reflect the intent for this monitoring to capture the level of Cryptosporidium entering a PWS's primary filtration treatment process. Where bank filtration serves as pretreatment to a filtration plant, PWSs must collect source water samples after bank filtration but prior to the filtration plant. In this case, the Cryptosporidium removal that bank filtration achieves will be reflected in the monitoring results and bin classification for the filtration plant. In contrast, where bank filtration is the primary filtration process, meaning that a PWS uses bank filtration to comply with the Cryptosporidium treatment requirements of the IESWTR or LT1ESWTR, PWSs must collect samples in the surface water source (e.g., the river).

#### c. Summary of Major Comments

Public comments on the August 11, 2003, LT2ESWTR proposal supported awarding Cryptosporidium treatment credit for bank filtration. Many commenters, however, stated that the proposed levels of credit (0.5- and 1.0-log) were insufficient. To address this issue, commenters supported allowing PWSs to obtain greater treatment credit by performing a site-specific study of bank filtration removal efficiency. Commenters recommended that site-specific bank filtration studies involve the measurement of surrogates for Cryptosporidium removal using monitoring wells located along the shortest flow path between the surface water and the production well.

EPA agrees that some bank filtration sites may achieve greater than 1.0-log Cryptosporidium removal. Today's rule establishes the proposed bank filtration Cryptosporidium treatment credits of 0.5- and 1.0-log and allows PWSs to

apply to the State for higher levels of credit through a site-specific demonstration of performance. In such a study, PWSs must measure the removal of Cryptosporidium or a State-approved surrogate using monitoring wells located along the flow path, as recommended by commenters.

Some commenters cited research addressing appropriate surrogate organisms for estimating Cryptosporidium removal in surface water treatment plants and bank filtration sites. Commenters recommended that EPA recognize aerobic endospores as a surrogate measure in Cryptosporidium removal studies, including those for bank filtration.

EPA agrees that based on available information, aerobic spores are suitable Cryptosporidium removal surrogates for bank filtration processes due to their size, resistance to inactivation, and concentration in surface and ground waters. Data from several bank filtration sites on the use of aerobic spores as a Cryptosporidium removal surrogate are available. The Toolbox Guidance Manual identifies aerobic spores as suitable in conjunction with other hydrogeologic data for making site-specific determinations for additional Cryptosporidium removal credit.

In guidance, EPA suggests that where feasible, PWSs measure diatom species in conjunction with aerobic spores in bank filtration studies because Cryptosporidium oocysts are intermediate in size between the two surrogate groups. Further, EPA recognizes the current uncertainties and limitations in available information on surrogates for bank filtration and will update guidance as warranted by new information.

#### 7. Combined Filter Performance

##### a. Today's Rule

For water treatment plants that use filtration, the turbidity of the filtered water is an indicator of how effectively the plant is removing particulate matter, including microbial pathogens, from the raw water. PWSs using conventional filtration treatment or direct filtration receive an additional 0.5-log Cryptosporidium treatment credit during any month the PWS meets the following standard:

- The turbidity level of representative samples of a PWS's filtered water (i.e., the combined filter effluent) is less than or equal to 0.15 NTU in at least 95 percent of the measurements taken each month. PWSs must continue to measure turbidity as specified in 40 CFR 141.74(a) and (c), which generally

require sampling at least every four hours using approved methods. PWSs using other types of filtration processes, including slow sand, diatomaceous earth, membranes, bag, or cartridge filtration, are not eligible for this treatment credit.

##### b. Background and Analysis

Turbidity is a method defined parameter that is based on measuring the amount of light scattered by suspended particles in a solution. This measure can detect the presence of a wide variety of particles in water, including microorganisms, but cannot provide specific information on particle type, number, or size. In filtered water, the turbidity level indicates how well the filtration and other upstream clarification processes have performed in removing particles from the raw water, with lower turbidity indicating better particle removal. Thus, lower filtered water turbidity is associated with a decreased likelihood that microbial pathogens like Cryptosporidium have passed through the filtration plant and into the water distributed to consumers.

Under existing regulations, PWSs that filter must monitor turbidity in the combined filter effluent (CFE) at least every four hours using approved methods, although States may reduce this frequency to once per day for PWSs serving 500 people or fewer (40 CFR 141.74(a) and (c)). For PWSs using conventional or direct filtration, at least 95 percent of the CFE turbidity measurements must be less than or equal to 0.3 NTU, and the turbidity must never exceed 1 NTU (40 CFR 141.173(a) and 141.551(a)-(b)).

The Stage 2 M-DBP Advisory Committee recommended an additional 0.5-log Cryptosporidium treatment credit for PWSs that achieve a CFE turbidity less than or equal to 0.15 NTU in at least 95 percent of measurements per month (USEPA 2000a). This 95th percentile turbidity standard is one half the level required under existing regulations for PWSs using conventional or direct filtration, as stated earlier. The August 11, 2003 proposal included this treatment credit for PWSs using conventional or direct filtration (USEPA 2003a), and EPA is establishing it in today's final rule with no changes from the proposal. The following discussion summarizes the basis for this treatment credit.

In the proposal, EPA analyzed the improvement in Cryptosporidium removal that conventional and direct filtration plants realize when operating at lower effluent turbidity levels. For this analysis, EPA estimated that PWSs



complying with the existing 95th percentile CFE turbidity standard of 0.3 NTU will typically operate with filter effluent turbidity between 0.1–0.2 NTU; PWSs complying with a CFE standard of 0.15 NTU were estimated to operate with filter effluent turbidity less than 0.1 NTU. Accordingly, EPA compared Cryptosporidium removal efficiencies when effluent turbidity was below 0.1 NTU with those when effluent turbidity was in the range of 0.1–0.2 NTU.

Studies by Patania et al. (1995), Emelko et al. (1999), and Dugan et al. (2001) observed the average removal of Cryptosporidium to be 0.5- to 1.2-log greater when filter effluent turbidity was less than 0.1 NTU in comparison to removal with effluent turbidity between 0.1–0.2 NTU. These studies, therefore, indicate that PWSs complying with a filter effluent turbidity standard of 0.15 NTU will achieve at least 0.5-log greater Cryptosporidium removal than PWSs complying with the existing 0.3 NTU standard. Based on this finding, EPA concluded that an additional 0.5-log Cryptosporidium treatment credit is appropriate for PWSs using conventional or direct filtration that meet a 95th percentile CFE turbidity standard of 0.15 NTU.

Other types of filtration processes, such as slow sand, diatomaceous earth, membranes, bag, or cartridge filtration, are not eligible for this treatment credit. These filtration processes remove Cryptosporidium through different mechanisms than those operative in rapid granular media filtration, which is used in conventional and direct filtration. Available data do not establish a similar relationship between lower filter effluent turbidity and improved Cryptosporidium removal efficiency for these other filtration processes.

The SAB reviewed the proposed additional Cryptosporidium treatment credit for PWSs that operate with very low filtered water turbidity. In their report, the SAB stated that further lowering of turbidity would result in further reductions in Cryptosporidium in the effluent from filtration processes, but available data were limited in showing the exact removal that can be achieved. Based on the data provided, the SAB recommended that no additional treatment credit be given to plants that demonstrate a CFE turbidity of 0.15 NTU or less (SAB 2003).

In addressing this SAB recommendation, EPA recognizes that precisely quantifying the increase in Cryptosporidium removal that a particular filtration plant will realize when operating at lower filter effluent turbidity is not generally feasible.

Available data, though, consistently show that removal of Cryptosporidium is at least 0.5-log greater when filter effluent turbidity reflects compliance with a 0.15 NTU standard in comparison to a 0.3 NTU standard. Further, treatment plants operating at lower filter effluent turbidity will achieve increased removal of other microbial pathogens present in the raw water. In consideration of these factors, EPA believes that PWSs should receive an additional 0.5-log Cryptosporidium treatment credit when at least 95 percent of CFE turbidity measurements are less than or equal to 0.15 NTU.

Another key issue in establishing additional treatment credit based on low filtered water turbidity is the performance of analytical instruments (turbidimeters) to accurately measure turbidity at low levels. In the proposal, EPA reviewed studies of low level turbidity measurements by EPA (1998c), Sadar (1999), and Letterman et al. (2001). Among the significant findings of these studies are the following:

(1) On-line turbidimeters typically had a positive bias (i.e., a higher turbidity reading) in comparison to bench-top turbidimeters. EPA expects that most PWSs that receive additional treatment credit for low filter effluent turbidity will use on-line turbidimeters. This finding suggests that the error in turbidimeter readings may be generally conservative, so that PWSs will operate at lower than required turbidity levels.

(2) Different turbidimeters did not agree well when used to measure low level turbidity, which may be due to differences in instrument design. This finding suggests that low level turbidity measurements may be viewed as a relative indicator of water quality improvement at a particular PWS but may be less applicable for making comparisons among different PWSs.

In addition, the American Society for Testing and Materials (ASTM) has issued standard test methods for measurement of turbidity below 5 NTU by on-line (ASTM 2001) and static (ASTM 2003) instruments. These methods specify that the instrument should permit detection of turbidity differences of 0.01 NTU or less in waters having turbidities of less than 1.00 NTU (ASTM 2001) and 5.0 NTU (ASTM 2003), respectively.

After reviewing these studies and the ASTM methods, EPA concluded that currently available monitoring equipment can reliably measure turbidity at levels of 0.15 NTU and lower. Rigorous calibration and maintenance of turbidity monitoring equipment is necessary, however. EPA has developed guidance on proper calibration, operation, and maintenance of turbidimeters (USEPA 1999c).

### c. Summary of Major Comments

Public comment on the August 11, 2003, LT2ESWTR proposal supported awarding additional Cryptosporidium treatment credit for PWSs that achieve lower filtered water turbidity. Commenters raised specific concerns with the criteria for PWSs to receive this credit, the available data that support this credit, and the performance of turbidimeters for measuring turbidity at very low levels. A summary of these comments and EPA's responses follows.

Most commenters supported awarding 0.5-log additional Cryptosporidium treatment credit for PWSs that achieve at least 95 percent of CFE turbidity measurements less than or equal to 0.15 NTU. A few commenters, however, recommended that PWSs only receive additional treatment credit for demonstrating this level of turbidity performance in each individual filter effluent (IFE), rather than the CFE. In addition, one commenter stated that PWSs should be required to monitor CFE turbidity every 15 minutes, rather than every four hours as required under current regulations.

In response, EPA agrees with the recommendation of most commenters and has established additional Cryptosporidium treatment credit based on meeting a 95th percentile turbidity level of 0.15 NTU in the CFE. EPA recognizes, however, that achieving low turbidity in each IFE may represent a higher level of performance than achieving low turbidity in the CFE. As described in the next section, EPA has also established standards for additional Cryptosporidium treatment credit based on low IFE turbidity in today's rule. EPA does not have data indicating that PWSs should monitor the CFE turbidity at a higher frequency than every four hours, as required under existing regulations. Consequently, EPA is not changing the frequency of required CFE turbidity monitoring as a condition for PWSs to receive additional treatment credit under today's rule.

One commenter summarized additional studies that provide data on the improvement in Cryptosporidium removal efficiency at lower filter effluent turbidity levels. According to this commenter, these studies demonstrate that lowering filter effluent turbidity from 0.3 to 0.15 NTU translates to an improvement in Cryptosporidium removal of more than 1.5-log, with individual studies showing a range of >0.7-log to >3-log based on median removal. EPA finds that these studies bolster the conclusion that PWSs operating to meet 0.15 NTU in the filter effluent will achieve at least 0.5-



log greater *Cryptosporidium* removal than PWSs operating to meet 0.3 NTU. Thus, they support the additional 0.5-log *Cryptosporidium* treatment credit under today's rule for PWSs meeting 0.15 NTU at the 95th percentile in the CFE.

In regard to the measurement of low level turbidity, some commenters raised concerns that turbidimeters used by the U.S. water supply industry do not agree when used to measure turbidity in the 0.01 to 0.5 NTU range. Further, these differences are independent of the calibration method used and can be significant when comparing instruments by different manufacturers. Other commenters stated that turbidimeters can accurately reflect turbidity values less than 0.15 NTU if properly calibrated, and some commenters cited the ASTM method development process to support this assessment. In addition, commenters suggested that available guidance on turbidity measurement provides quality assurance measure that can reduce analytical uncertainty.

EPA agrees with commenters that available methods and instruments are adequate to demonstrate compliance with a 0.15 NTU turbidity level. In particular, EPA believes that monitoring low level turbidity can be effective for demonstrating water quality improvements at individual plants, but also recognizes that the performance of turbidimeters used at different plants may vary. Further, calibration and maintenance of turbidity monitoring equipment is critical, and EPA has developed guidance on these procedures (USEPA 1999c).

## 8. Individual Filter Performance

### a. Today's Rule

PWSs using conventional filtration treatment or direct filtration receive an additional 0.5-log *Cryptosporidium* treatment credit during any month the PWS meets the following criteria:

- The filtered water turbidity for each individual filter is less than or equal to 0.15 NTU in at least 95 percent of the measurements recorded each month; and
  - No individual filter has a measured turbidity level greater than 0.3 NTU in two consecutive measurements taken 15 minutes apart.
- PWSs must continue to monitor turbidity for each individual filter continuously and record the results every 15 minutes, as required under 40 CFR 141.174 and 141.560.

PWSs that receive this 0.5-log *Cryptosporidium* treatment credit for individual filter performance also receive 0.5-log treatment credit for

combined filter performance, as described in section IV.D.7, for a total additional treatment credit of 1.0-log. Conversely, PWSs are not required to pursue individual filter performance credit to remain eligible for combined filter performance credit.

If a PWS has received credit for individual filter performance to comply with its *Cryptosporidium* treatment requirements and fails to meet the required criteria for this credit during any month, the PWS will not incur a treatment technique violation if the State determines the following:

- The failure to meet the required criteria for individual filter performance treatment credit was due to unusual and short-term circumstances that could not reasonably be prevented through optimizing treatment plant design, operation, and maintenance; and
- The PWS has experienced no more than two such failures in any calendar year.

This treatment credit is not applicable to other types of filtration processes, including slow sand, diatomaceous earth, membranes, bag, or cartridge filtration.

### b. Background and Analysis

Awarding additional treatment credit for individual filter performance is based on the expectation that achieving low filtered water turbidity in each individual filter will provide increased protection against microbial pathogens. Most treatment plants have multiple filters. Moderately elevated turbidity in the effluent from a single filter may not significantly affect the turbidity of the combined filter effluent, but may indicate a reduction in the overall pathogen removal efficiency of the filtration process. Consequently, a primary goal in optimizing water treatment plant performance is ensuring that each filter always produces very low turbidity water.

The criteria for PWSs to achieve the additional 1.0-log *Cryptosporidium* treatment credit for individual filter performance reflect goals of Phase IV of the Partnership for Safe Water (Partnership). The Partnership is a voluntary cooperative program involving PWSs, professional associations, and Federal and State regulatory agencies that seeks to increase protection against microbial contaminants by optimizing water treatment plant performance. The Stage 2 M-DBP Advisory Committee recommended 1.0-log treatment credit for PWSs that successfully participate in a peer review program and identified Phase IV of the Partnership as a program

where such credit would be appropriate (USEPA 2000a).

At the time of the Advisory Committee recommendation, the performance goals for Phase IV of the Partnership reflected those of the EPA Composite Correction Program (USEPA 1991a) and involved an on-site evaluation by a third-party team. Phase IV performance goals for individual filters included filtered water turbidity less than 0.1 NTU at least 95 percent of the time based on daily maximum values and a maximum measurement of 0.3 NTU. The purpose of the on-site evaluation was to confirm that a PWS had met Phase IV performance goals or had achieved the highest level of performance given its unique raw water quality.

After the Stage 2 M-DBP Agreement in Principle was signed in September 2000, the Partnership eliminated on-site third-party evaluation as a component of Phase IV. Instead, Phase IV required completion of an Optimization Assessment Spreadsheet in which the PWS entered water treatment data to demonstrate that it had achieved Phase IV performance levels. The application also required narratives related to the administrative support and operational capabilities necessary to sustain performance long-term.

The August 11, 2003 LT2ESWTR proposal included a 1.0-log *Cryptosporidium* treatment credit for PWSs that met the individual filter performance goals of Phase IV of the Partnership (i.e., 95 percent of daily maximum values below 0.1 and no values above 0.3 NTU) (USEPA 2003a). Rather than requiring an application package with historical data and narratives, however, the proposed rule required PWSs to report filter effluent turbidity data to the State each month to demonstrate compliance with these filter performance goals.

The Partnership modified the Phase IV goals for individual filter performance in 2003. A revised goal is filtered water turbidity less than 0.10 NTU at least 95 percent of the time based on values recorded at 15 minute time intervals. Thus, where the earlier goal was based on daily maximum values for each filter, the revised goal is based on all values for each filter—a less stringent approach. The Partnership made this modification after finding that none of the water treatment plants that had been evaluated could consistently meet the 0.1 NTU goal using daily maximum values and, further, that this goal was biased against plants with more filters.

In today's final rule, EPA has adjusted the criteria from the proposal for PWSs

to receive additional treatment credit based on individual filter effluent turbidity. These adjustments are in response to the changes the Partnership made to Phase IV individual filter performance goals. Under today's rule, PWSs receive 1.0-log additional Cryptosporidium treatment credit if effluent turbidity from each filter is less than or equal to 0.15 NTU at least 95 percent of the time and never exceeds 0.3 NTU in two consecutive measurements taken 15 minutes apart.

EPA expects that PWSs will operate at less than 0.1 NTU in order to comply with a regulatory limit of 0.15 NTU. Further, EPA believes that assessing individual filter compliance with a maximum turbidity level of 0.3 NTU based on two consecutive measurements taken 15 minutes apart is appropriate. This approach allows for brief fluctuations in turbidimeter readings that may not indicate a degradation in filtered water quality to occur without penalizing a PWS, but it should catch filters that significantly exceed 0.3 NTU over the course of a month. EPA applied this approach to individual filter monitoring under the IESWTR and LT1ESWTR. Consequently, EPA regards these criteria as comparable to the revised Partnership Phase IV standards for individual filter performance.

In addition, today's rule gives States authority to determine whether to issue a treatment technique violation for PWSs that exceed individual filter performance limits. This authority applies in the case where a PWS receives credit for individual filter performance to meet the treatment requirements of today's rule and fails to achieve the criteria to receive this credit during a month. If the State determines that this failure was due to unusual and short-term circumstances that could not reasonably be prevented through treatment optimization, the State may choose not to issue a treatment technique violation, which the PWS otherwise will incur. Because this authority should be applied only to unusual plant circumstances, a State cannot make this determination if a PWS has experienced more than two such failures in any calendar year.

EPA is granting States this authority because PWSs that consistently meet the criteria for individual filter performance treatment credit may occasionally experience short-term deviations from these criteria due to circumstances largely beyond the PWS's control. An example of such a circumstance may be malfunctioning equipment that a PWS quickly removes from service, but that nevertheless prevents the PWS from fully meeting individual filter

performance criteria in a particular month. EPA believes that States should only apply this authority in cases where PWSs have consistently achieved the criteria for individual filter performance treatment credit in previous months.

The approach in today's final rule for valuing individual filter performance treatment credit differs from the approach in the proposal. EPA's intent in both the proposal and today's rule is to award an additional 1.0-log Cryptosporidium treatment credit to PWSs that meet the criteria for individual filter performance. In the proposal, however, PWSs could receive 1.0-log additional treatment credit specifically for meeting the individual filter performance criteria, but were then not eligible to receive any treatment credit under the combined filter performance option. In today's rule, PWSs receive 0.5-log credit for the individual filter performance option and also receive an additional 0.5-log treatment credit for the combined filter performance option (discussed in section IV.D.7), resulting in 1.0-log total additional credit. EPA has made this modification so that if a PWS fails in an attempt to achieve individual filter performance credit, the PWS is clearly still eligible to received combined filter performance credit.

In a review of a draft LT2ESWTR proposal, the SAB recommended that PWSs receive 0.5-log, rather than 1.0-log, additional Cryptosporidium treatment credit for achieving individual filter effluent turbidity below 0.15 NTU at the 95th percentile (SAB 2003). In response to this SAB recommendation, today's rule requires additional individual filter performance criteria to support 1.0-log total additional treatment credit. Specifically, today's rule incorporates the Partnership Phase IV performance goal that individual filter effluent turbidity never exceed 0.3 NTU (as described earlier, EPA concluded that determining compliance with this standard based on two consecutive measurements taken 15 minutes is appropriate and consistent with existing regulations). Thus, EPA believes that these criteria, in conjunction with the expectation that controlling effluent turbidity at all filters individually rather than just the combined filter effluent will generally result in lower microbial risk, justify 1.0-log additional treatment credit.

#### c. Summary of Major Comments

Public comment on additional treatment credit for individual filter performance in the August 11, 2003 proposal raised a number of issues: changes in the Partnership Phase IV

criteria and achievability of the proposed criteria for this credit, credit for participating in peer review programs, and a review process for data that exceed regulatory limit. A summary of these comments and EPA's responses follows.

Several commenters stated that PWSs could not consistently achieve the proposed individual filter effluent turbidity criterion of 95 percent of daily maximum measurements less than or equal to 0.1 NTU. Commenters provided data on turbidity levels in PWSs to support this assertion and indicated that the Partnership modified this criterion in the Phase IV individual filter performance goals because PWSs could not meet it. Alternatives recommended by commenters for the final rule included the use of the revised Partnership Phase IV goals for individual filter effluent turbidity or a more stringent criterion for combined filter effluent turbidity.

In response, EPA agrees that current Partnership Phase IV goals provide appropriate criteria for awarding 1.0-log total additional Cryptosporidium treatment credit. Today's rule grants this total credit to PWSs that meet a 95th percentile individual filter effluent turbidity limit of 0.15 NTU, and EPA expects that PWSs complying with this limit will operate under the Partnership goal of 0.10 NTU. EPA does not support awarding a higher level of additional treatment credit for a more stringent combined filter effluent turbidity criterion, beyond the 0.5-log credit available under combined filter performance (see section IV.D.7). The purpose of the individual filter performance toolbox option is to recognize the higher pathogen removal PWSs will likely achieve by maintaining very low effluent turbidity for each individual filter.

A few commenters suggested that as an alternative to establishing numerical criteria for individual filter performance, today's rule should award additional treatment credit for PWSs that successfully participate in a peer review program. In addition to the Partnership, commenters listed the Area Wide Optimization Program and the Texas Optimization Program as examples of programs that will provide for comprehensive improvements in treatment performance.

EPA agrees that participation in peer review programs is beneficial for PWSs. Further, such programs may assist PWSs in meeting the filtration performance criteria in today's rule for additional Cryptosporidium treatment credit. EPA does not believe, however, that mere participation in a peer review program

is an appropriate basis for awarding additional treatment credit. Rather, to ensure national consistency in standards for compliance with treatment requirements, EPA has concluded that additional treatment credit should be based on PWSs meeting specified criteria for enhanced treatment performance.

Another significant issue raised by commenters is the need for a review process for deviations from the criteria for individual filter performance due to circumstances that cannot be prevented through plant optimization. An example given by several commenters is a filter that malfunctions and is taken out of service, but that may have exceeded the individual filter performance turbidity criteria for a short period when the filter was operating.

EPA agrees that circumstances may occur that are beyond the PWS's control and that prevent the PWS from fully meeting the criteria for individual filter performance in a particular month. If a PWS relies on individual filter performance treatment credit to meet the treatment requirements of today's rule and the PWS fails to meet all criteria for this credit in a given month, the State may review the reasons for this failure. If the State finds that the failure was due to circumstances that could not be prevented through plant optimization, the State may choose not to issue a treatment technique violation on up to two such occasions in a calendar year.

## 9. Demonstration of Performance

### a. Today's Rule

A demonstration of performance is a site-specific test that assesses the Cryptosporidium removal efficiency of a water treatment plant or a treatment process within a plant. Under today's rule, PWSs may undertake demonstration of performance testing for the following purposes:

(1) To establish a Cryptosporidium treatment credit that is higher than the prescribed treatment credit in today's rule for a water treatment plant or a treatment process in the microbial toolbox; or

(2) To establish a Cryptosporidium treatment credit for a treatment process that is not included in the microbial toolbox or that does not meet the design or operational criteria for prescribed treatment credit in the microbial toolbox.

The specific requirements that apply to demonstration of performance testing are as follows:

- PWSs may receive Cryptosporidium treatment credit for a water treatment plant or a treatment process within a plant that is based on a site-specific demonstration of Cryptosporidium

removal efficiency. This demonstration of performance treatment credit may be greater than or less than any prescribed treatment credit in today's rule.

- The site-specific demonstration of Cryptosporidium removal efficiency must follow a State-approved protocol and may involve the use of surrogates rather than Cryptosporidium.

- The State must approve through written notification any treatment credit based on a demonstration of performance. As a condition of approval, the State may designate monitoring and treatment performance criteria the PWS must meet and report on an ongoing basis to remain eligible for the credit. The State may designate such criteria to verify that the PWS maintains the operating conditions under which the State approved the demonstration of performance treatment credit.

- PWSs are not eligible for prescribed treatment credit for any treatment process that is included in a demonstration of performance credit.

### b. Background and Analysis

The prescribed Cryptosporidium treatment credits in today's rule for water treatment plants and for treatment processes in the microbial toolbox are based on conservative estimates of mean Cryptosporidium removal efficiencies. Due to site-specific conditions, however, some PWSs will achieve greater Cryptosporidium removal than reflected in the prescribed treatment credits. In addition, some PWSs will have treatment processes that are not included in the microbial toolbox or that do not meet microbial toolbox criteria for prescribed treatment credit. In all these cases, PWSs have the option to undertake demonstration of performance testing to establish an appropriate level of Cryptosporidium treatment credit for the treatment plant or treatment process.

The option for demonstration of performance testing in today's rule reflects a recommendation by the Stage 2 M-DBP Advisory Committee. Specifically, the Committee stated that the LT2ESWTR should allow site-specific testing both to establish Cryptosporidium treatment credit above the prescribed credit for microbial toolbox processes and to demonstrate Cryptosporidium removal for technologies not listed in the microbial toolbox. The August 11, 2003 LT2ESWTR proposal included the demonstration of performance option (USEPA 2003a), and EPA is establishing it in today's final rule.

Demonstration of performance testing will be specific to a particular site and

will depend on the treatment processes being tested, water quality, plant infrastructure, PWS resources, and other factors. Consequently, today's rule does not establish specific protocols for demonstration of performance testing. Rather, today's rule gives States the authority to approve testing protocols developed by PWSs and to determine what level of Cryptosporidium treatment credit is appropriate. The Toolbox Guidance Manual provides recommendations to PWSs and States on conducting demonstration of performance testing, including analytical methods for measuring aerobic and anaerobic spores.

In general, demonstration of performance testing should encompass the full range of expected operating conditions and should conservatively assess the degree of Cryptosporidium removal that a treatment process can reliably achieve. Directly quantifying the removal of Cryptosporidium typically is not feasible in full-scale testing due to limitations in source water concentrations and analytical method performance. Consequently, demonstration of performance testing that is conducted at full-scale may involve the use of surrogates, such as aerobic spores, that have been shown to correlate with the removal of Cryptosporidium. PWSs and States may also consider the use of pilot-scale studies in conjunction with full-scale studies for demonstration of performance testing.

As a condition of approving a demonstration of performance credit, the State may designate treatment performance criteria the PWS must meet on an ongoing basis to remain eligible for the credit. For example, if a PWS conducts a demonstration of performance study while operating with very low filtered water turbidity, the State may establish as a condition of approving treatment credit based on the study that the PWS must continue operating at the low filtered water turbidity. EPA believes this condition is necessary because, in this example, if the PWS were to begin operating at a higher filtered water turbidity level, the demonstration of performance study results might no longer represent the PWSs actual performance.

PWSs are not eligible for prescribed treatment credit for any treatment process that is included in a demonstration of performance credit. For example, if a PWS receives a demonstration of performance treatment credit of 4-log for Cryptosporidium removal through a conventional treatment plant (i.e., coagulation/sedimentation/filtration), the PWS is not

also eligible for additional treatment credit for combined filter performance. In this case, the demonstration of performance testing accounts for the removal achieved by filtration.

#### c. Summary of Major Comments

Public comment on the August 11, 2003 LT2ESWTR proposed supported inclusion of the demonstration of performance option to award site-specific treatment credit to PWSs. Commenters stated that many well-run surface water treatment plants achieve significantly greater *Cryptosporidium* removal than the prescribed treatment credit, and demonstration of performance testing is needed to award an appropriate level of credit in such cases. Two aspects of this option that received significant public comment are the provision for States to award less than the prescribed treatment credit if indicated by testing results and the need for guidance on demonstration of performance testing. These comments and EPA's responses are summarized as follows.

Several commenters recommended that EPA eliminate the provision that allows States to award less than the prescribed treatment credit based on demonstration of performance testing. These commenters stated that pilot- and full-scale testing is conservative and challenging to implement and that for past regulations, States generally have not awarded lower treatment credit based on a site-specific study. If this provision remains in the regulation, commenters suggested that EPA provide criteria addressing how it should be applied. Such criteria should recognize the conservative nature of testing with surrogates for *Cryptosporidium* removal and the potential for misleading or flawed testing results.

In response, EPA believes that States should have the discretion to award either more or less treatment credit than the prescribed credit on a case-by-case basis where a State has site-specific information that an alternative credit is appropriate. Today's rule allows this. EPA recognizes, however, that demonstration of performance testing should be designed to provide a conservative estimate of treatment efficiency and, as such, is not generally intended to reduce the level of treatment credit a PWS receives. Further, results from demonstration of performance testing should be rigorously evaluated for flaws and bias prior to being used to support either a higher or lower treatment credit. The Toolbox Guidance Manual identifies approaches States may wish to consider

in awarding higher or lower treatment credit.

Many commenters stated that EPA should provide thorough guidance on demonstration of performance testing. Topics for this guidance suggested by commenters include approaches to demonstrating treatment credit, minimum duration of testing, the use of safety factors, and periodic reconfirmation of testing results. Some commenters recommended that guidance address both full-scale testing with surrogates like aerobic spores and pilot-scale testing with *Cryptosporidium* or surrogates. Other commenters recommended that testing should be limited to full-scale processes and that testing with pilot-scale representations of full-scale equipment should be discouraged.

In the Toolbox Guidance Manual, EPA provides direction on procedures for demonstration of performance testing that addresses issues raised by commenters. These issues include surrogates for full-scale testing, potential roles for pilot-scale testing in conjunction with full-scale testing, minimum duration of testing to capture the full range of operating conditions, the analysis of data from testing to establish treatment credit, and routine monitoring to verify that the conditions under which demonstration of performance credit is awarded are maintained during routine operation. EPA believes that this guidance will assist PWSs and States with implementing demonstration of performance testing appropriately.

### 10. Bag and Cartridge Filtration

#### a. Today's Rule

Under today's rule, PWSs may receive *Cryptosporidium* treatment credit of up to 2.0-log for an individual bag or cartridge filter and up to 2.5-log for two or more bag or cartridge filters operated in series. To be eligible for this treatment credit, filters must meet the definition of a bag or cartridge filter and must undergo challenge testing to demonstrate removal efficiency with an applied safety factor, as described in this section.

Today's rule defines bag and cartridge filters as pressure driven separation processes that remove particulate matter larger than 1 micrometer using an engineered porous filtration media through either surface or depth filtration. Bag filters are constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to the outside. Cartridge filters are typically constructed as rigid or

semi-rigid, self-supporting filter elements housed in a pressure vessel in which flow is from the outside of the cartridge to the inside.

Today's rule treats bag and cartridge filters equivalently, with the following exception: If a cartridge filter meets the definition of a membrane filtration process and can be direct integrity tested according to the criteria specified in section IV.D.11, a PWS has the option to seek greater treatment credit for the filter as a membrane. Section IV.D.11 describes criteria for awarding treatment credit to membranes.

Today's rule requires challenge testing to establish *Cryptosporidium* treatment credit for bag and cartridge filters. This challenge testing is product-specific and not site-specific. Once challenge testing is performed on a specific bag or cartridge filtration product, PWSs that install the specific filtration product are not required to repeat challenge testing at individual sites. For a PWS to receive *Cryptosporidium* treatment credit for a bag or cartridge filter, challenge testing must meet the following criteria:

- Challenge testing must be conducted on full-scale filters that match the filters the PWS will use in materials, construction, and associated housing or pressure vessel. If treatment credit will be based on filters operated in series then challenge testing must be performed on the filters in series.

- Challenge testing must involve measuring the removal by the filter of either *Cryptosporidium* or a surrogate that is removed no more efficiently than *Cryptosporidium* (i.e., the "challenge particulate").

- The analytical method used to measure removal in the challenge test must discretely quantify the specific challenge particulate. The maximum allowable feed water concentration of the challenge particulate used during a challenge test is 10,000 times the analytical method detection limit of the challenge particulate in the filtrate.

- During challenge testing, filters must be operated at the maximum design flow rate and for a duration sufficient to reach the maximum design pressure drop (i.e., "terminal pressure drop"). PWSs may not operate bag or cartridge filters outside of these design parameters during routine use. In order to achieve terminal pressure drop during challenge testing, adding particulate matter, such as fine carbon test dust or bentonite clay particles, to the test water is allowed and may be necessary.

- In each challenge test, the removal of the challenge particulate must be measured during three periods over the



filtration cycle: (1) Within two hours of start-up of a new filter, (2) when the pressure drop is between 45 and 55 percent of the terminal pressure drop, and (3) when the pressure drop has reached 100 percent of the terminal pressure drop. A log removal value (LRV) must be calculated for each of these periods as follows:  $\text{LOG}_{10}$  (filter influent challenge particulate level) -  $\text{LOG}_{10}$  (filter effluent challenge particulate level). For each filter tested, the LRV for the filter ( $\text{LRV}_{\text{filter}}$ ) is equal to the minimum of these three LRVs.

- The  $\text{LRV}_{\text{filter}}$  values for each filter that is tested are used to determine the removal efficiency that is assigned to the specific bag or cartridge filter product (i.e., a filter product line) or combination of filters in series. If fewer than twenty filters are tested, the removal efficiency of the filter product line is equal to the lowest  $\text{LRV}_{\text{filter}}$  among the filters tested (today's rule does not specify a minimum number of filters to test). If twenty or more filters are tested, the removal efficiency of the filter product line is equal to the 10th percentile of the  $\text{LRV}_{\text{filter}}$  values among the filters tested.

- The Cryptosporidium treatment credit assigned to an individual bag or cartridge filter is equal to the removal efficiency established during challenge testing minus a 1.0-log factor of safety, up to a maximum treatment credit of 2.0-log (e.g., if challenge testing demonstrates a removal efficiency of 3.0-log or greater, the filter is eligible to receive 2.0-log Cryptosporidium treatment credit).

- The Cryptosporidium treatment credit assigned to configurations of two or more bag or cartridge filters operated in series is equal to the removal efficiency established during challenge testing minus a 0.5-log factor of safety, up to a maximum treatment credit of 2.5-log (e.g., if challenge testing demonstrates a removal efficiency of 3-log or greater, the filter receives 2.5-log Cryptosporidium treatment credit).

If a previously tested bag or cartridge filter is modified in a manner that could change the removal efficiency of the filter product line, a new removal efficiency must be established for the modified filter through challenge testing. If approved by the State, data from challenge testing conducted prior to promulgation of today's rule may be considered in lieu of additional testing. However, the prior testing must have been conducted in a manner that demonstrates a removal efficiency for Cryptosporidium commensurate with the treatment credit awarded to the filter.

#### b. Background and Analysis

Bag and cartridge filters are widely used by very small PWSs and in point-of-entry applications to remove particulate material from raw water, including microbial pathogens like Cryptosporidium. Depending on water quality and treatment plant infrastructure, these filters may be used as the sole filtration step or as a polishing filter that follows primary filtration processes. A critical aspect of bag and cartridge filters as defined in today's rule is that they cannot undergo direct integrity testing, which is used to detect leaks that could result in contamination of the treated water. Cartridge filters that meet the definition of a membrane process and can be direct integrity tested are considered membranes under today's rule, and these are described in section IV.D.11.

The Stage 2 M-DBP Advisory Committee recommended Cryptosporidium treatment credits of 1.0- and 2.0-log for bag and cartridge filters, respectively (USEPA 2000a), and the August 11, 2003 LT2ESWTR proposal included criteria for PWSs to receive these treatment credits. The proposed criteria required challenge testing and the application of a 1.0-log factor of safety to establish treatment credit. In today's final rule, EPA has modified these criteria to allow both bag and cartridge filters to be eligible for 2.0-log credit and to allow 2.5-log credit with a 0.5-log factor of safety for bag or cartridge filters operated in series. The following discussion summarizes the basis for these criteria and for differences between the proposal and today's final rule.

In the proposal, EPA reviewed bag and cartridge filtration studies by Long (1983), Schaub *et al.* (1993), Goodrich *et al.* (1995), Ciardelli (1996a and 1996b), Li *et al.* (1997), Roessler (1998), Enriquez *et al.* (1999), NSF (2001a and 2001b), and Cornwell and LeChevallier (2002). Results from these studies indicated that both bag and cartridge filters exhibit variable removal efficiency, ranging from 0.5- to 3.6-log. No correlation between the pore size rating established by the manufacturer and the removal efficiency of the filter was apparent. Additionally, available data did not indicate a strong relationship between commonly used process monitoring parameters, such as turbidity and pressure drop, and Cryptosporidium removal efficiency.

Due to this lack of correlation between either design criteria or process monitoring and removal efficiency, today's rule requires challenge testing of filters to establish Cryptosporidium

treatment credit. Challenge testing must measure the removal across the filter of Cryptosporidium or a surrogate, like polystyrene microspheres, that is removed no more efficiently than Cryptosporidium (Long 1983, Li *et al.* 1997, NSF 2002b). Further, because studies have shown the removal efficiency of some bag and cartridge filters to decrease over the course of a filtration cycle (Li *et al.* 1997, NSF 2001a,b), challenge testing must assess removal efficiency during three periods: within two hours of startup of a new filter, between 45-55 percent of terminal pressure drop, and at the end of the run after terminal pressure drop is realized.

Bag and cartridge filter challenge testing is product-specific and not site-specific since the intent of this testing is to demonstrate the removal capabilities of the filtration device rather than evaluate the feasibility of implementing the technology at a specific plant. Challenge testing must be conducted using full-scale filter elements to assess the performance of the entire unit, including the filtration media, seals, filter housing and other components integral to the filtration system. To be eligible for treatment credit when operated in series, filters must be tested in series. Multiple filters of the same type can be tested to provide a better statistical basis for estimating removal efficiency. The Toolbox Guidance Manual provides information on bag and cartridge filter challenge testing.

Today's rule establishes the proposed requirement that a 1.0-log factor of safety be applied to the removal efficiency established during challenge testing for individual bag or cartridge filters when determining treatment credit. Thus, to receive a 2.0-log treatment credit, a removal efficiency of at least 3.0-log must be demonstrated during challenge testing. EPA believes that this factor of safety is necessary because integrity testing with bag and cartridge filters is not possible (note: under today's rule, cartridge filters that can be integrity tested are classified as membranes and no safety factor is required; see section IV.D.11).

Challenge testing provides an estimate of the removal efficiency of a bag or cartridge filter product line but does not involve testing every filter. Further, it does not fully capture the variation in filter performance that will occur over time during routine use. For membranes, the use of direct integrity tests, such as a pressure hold test, that is correlated to removal efficiency addresses this problem. With bag and cartridge filters, however, EPA is aware



of no equivalent test, and parameters like turbidity and pressure differential that may be monitored with these filters have not been shown to correlate with *Cryptosporidium* removal efficiency. Consequently, a safety factor is necessary to account for variation in individual filter performance relative to challenge test results.

Individual bag and cartridge filters are eligible for a maximum *Cryptosporidium* treatment credit of 2.0-log. EPA proposed this level of credit for cartridge filters but proposed a 1.0-log maximum credit for bag filters, as recommended by the Advisory Committee. However, after further reviewing available data, EPA has concluded that treatment studies do not support establishing different limits on treatment credit for bag and cartridge filters. Accordingly, today's rule treats bag and cartridge filters equivalently. EPA continues to believe that 2.0-log is an appropriate maximum treatment credit for a single bag or cartridge filter, based on available data on the removal of *Cryptosporidium* and surrogates by these processes and the absence of a direct integrity test.

Today's rule also establishes criteria for awarding treatment credit to bag or cartridge filters operated in series. EPA believes that the use of these filters in series provides clear advantages in comparison to operation of a single filter. Series operation will achieve both greater removal efficiency and improved reliability by lessening the impact of variation in the performance of a single filter. In consideration of these factors, bag or cartridge filters operated in series are eligible for a higher *Cryptosporidium* treatment credit of 2.5-log and require a lower safety factor of 0.5-log applied to challenge test results when determining treatment credit.

#### c. Summary of Major Comments

In response to the August 11, 2003 proposal, EPA received significant public comment on the following issues related to bag and cartridge filtration: the allowable treatment credit, the factor of safety applied to challenge testing results to determine treatment credit, and the procedure for determining the removal efficiency. A summary of these comments and EPA's responses follows.

In regard to the proposed treatment credits, several commenters recommended that bag and cartridge filters should be eligible for up to 2.0- and 2.5-log credit, respectively, if supported by the challenge test results. Others commented that filters should be allowed to qualify for removal credits at or below the 1.0- and 2.0-log credits in the proposal. EPA agrees that additional

flexibility should be provided with respect to the removal credit awarded to bag and cartridge filters. After reviewing these comments and reassessing data presented in the proposal on the removal efficiencies of bag and cartridge filters, EPA revised the proposal to allow up to 2.0-log treatment credit for either a single bag or cartridge filter. In addition, today's rule allows up to 2.5-log credit for bag or cartridge filters operated in series.

With respect to the 1.0-log safety factor applied to challenge test results to determine treatment credit, some commenters supported this approach, while others recommended a reduced safety factor. In response, EPA continues to believe that a 1.0-log safety factor is appropriate to address variability in individual filter performance and in the absence of a direct integrity test for bag and cartridge filters. Where filters are operated in series, however, EPA agrees that the safety factor should be reduced. Series operation provides an intrinsic process safety and will dampen some of the variability in removal efficiency observed for individual filters. Thus, EPA is reducing the factor of safety to 0.5-log for configurations consisting of two or more filters in series.

Commenters requested that EPA clarify the procedure used to determine the removal efficiency of bag and cartridge filters. In response, expanded and clarified guidance on conducting challenge tests to determine removal efficiency for bag and cartridge filters has been included in the Toolbox Guidance Manual.

#### 11. Membrane Filtration

##### a. Today's Rule

Today's final rule establishes criteria for awarding *Cryptosporidium* treatment credit to membrane filtration processes. To receive removal credit, filters must meet the definition of a membrane filtration process and undergo challenge testing to establish removal efficiency; PWSs must periodically verify system integrity through direct integrity testing and perform continuous indirect integrity monitoring during use. The removal credit awarded to a membrane process is based on the removal efficiency demonstrated during challenge testing and the sensitivity of the direct integrity test.

For the purpose of today's rule, membrane filtration is defined as a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which

has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test.

##### Membrane Challenge Testing

Any membrane filter used to meet the treatment requirements of today's rule must undergo challenge testing to determine its *Cryptosporidium* removal efficiency. Challenge testing establishes the maximum *Cryptosporidium* treatment credit a membrane filtration process is eligible to receive, provided this value is less than or equal to the sensitivity of the direct integrity test, as described later in this section. Challenge testing for membranes is product-specific, and PWSs that install membranes that have successfully undergone challenge testing are not required to repeat testing at their sites. Membrane challenge testing must meet the following criteria:

- Challenge testing must be conducted on either an identical full-scale module or a smaller-scale module identical in material and similar in construction to the membrane modules the PWS will use. A module is the smallest component of a membrane unit in which a specific membrane surface area is housed in a device with a filtrate outlet structure.

- Either *Cryptosporidium* or a surrogate that is removed no more efficiently than *Cryptosporidium* must be used as the challenge particulate during challenge testing.

- The analytical method used to measure removal in the challenge test must discretely quantify the specific challenge particulate. The maximum allowable feed water concentration used during a challenge test is 6.5-log ( $3.16 \times 10^6$ ) times the detection limit of the challenge particulate in the filtrate.

- Challenge testing must be conducted under representative hydraulic conditions at the maximum design flux and maximum design process recovery as specified by the manufacturer for the membrane filtration process. Flux is defined as the throughput of a pressure driven membrane process expressed as flow per unit of membrane area. Recovery is defined as the volumetric percent of feed water that is converted to filtrate over the course of an operating cycle uninterrupted by events such as chemical cleaning or a solids removal process (*i.e.*, backwashing).

- The removal efficiency for the membrane is determined from the results of the challenge test, expressed as a log removal value (LRV). A LRV must be calculated for each membrane module evaluated during the challenge

test based on the feed and filtrate concentrations of the challenge particulate for that module. The individual LRVs for each module are used to determine the overall removal efficiency of the membrane product. If fewer than twenty modules are tested, the overall removal efficiency is assigned a value equal to the lowest of the representative LRVs for the various modules tested. If twenty or more modules are tested, then the overall removal efficiency is assigned a value equal to the 10th percentile of the representative LRVs for the various modules tested.

- As part of the challenge test, a quality control release value (QCRV) must be established for a non-destructive performance test (e.g., bubble point test, diffusive airflow test, pressure/vacuum decay test) that demonstrates the Cryptosporidium removal capability of the membrane module. The non-destructive performance test must be applied to each membrane module a PWS uses in order to verify Cryptosporidium removal capability. Membrane modules that do not meet the established QCRV are not eligible for the Cryptosporidium removal credit demonstrated during challenge testing.

If a previously tested membrane product is modified in a manner that could change the removal efficiency of the membrane or the applicability of non-destructive performance test and associated QCRV, the modified membrane filter must be challenge tested to establish the removal efficiency and QCRV. If approved by the State, data from challenge testing conducted prior to promulgation of today's rule may be considered in lieu of additional testing. However, the prior testing must have been conducted in a manner that demonstrates a removal efficiency for Cryptosporidium commensurate with the treatment credit awarded to the filter.

#### *Membrane Direct Integrity Testing*

In order to receive Cryptosporidium treatment credit for a membrane filtration process, PWSs must conduct direct integrity testing in a manner that demonstrates a removal efficiency equal to or greater than the removal credit awarded to the membrane filtration process. A direct integrity test is defined as a physical test applied to a membrane unit in order to identify and isolate integrity breaches (i.e., one or more leaks that could result in contamination of the filtrate).

Each membrane unit must be independently direct integrity tested, where a membrane unit is defined as a

group of membrane modules that share common valving which allows the unit to be isolated from the rest of the system for the purpose of integrity testing or other maintenance. The direct integrity test must be applied to the physical elements of the entire membrane unit including membranes, seals, potting material, associated valving and piping, and all other components which under compromised conditions could result in contamination of the filtrate.

Common direct integrity tests include those that apply pressure or vacuum (such as the pressure decay test and diffusive airflow test) and those that measure the rejection of a particulate or molecular marker (such as spiked particle monitoring). Today's final rule does not stipulate the use of a particular direct integrity test. Instead, the direct integrity test must meet performance criteria for resolution, sensitivity, and frequency.

"Resolution" is defined as the smallest leak that contributes to the response from a direct integrity test. Any direct integrity test applied to meet the requirements of this rule must have a resolution of 3 micrometers or less.

The manner in which resolution is determined will depend on the type of direct integrity test used (i.e., pressure-based versus marker-based tests).

"Sensitivity" is defined as the maximum LRV that can be reliably verified by the direct integrity test. The sensitivity of the direct integrity test applied to a membrane filtration process to meet the Cryptosporidium treatment requirements of this rule must be equal to or greater than the removal credit awarded to the membrane filtration process. Furthermore, the increased concentration of suspended solids that occurs on the high pressure side of the membrane in some module designs must be considered in the sensitivity determination (i.e., the scouring action of some membrane designs keeps the accumulated solids in suspension where they may pass through an integrity breach). Specifically, the sensitivity of the direct integrity test is reduced by a factor that quantifies the increased concentration of suspended solids relative to the feed concentration.

The "frequency" of direct integrity testing specifies how often the test is performed over an established time interval. Direct integrity tests available at the time of promulgation are applied periodically and must be conducted on each membrane unit at a frequency of not less than once per day that the unit is in operation, unless the State determines that less frequent testing is acceptable. If continuous direct integrity test methods become available that also

meet the sensitivity and resolution criteria described earlier, such a continuous test may be used in lieu of periodic testing.

PWSs must establish a direct integrity test control limit that is indicative of an integral membrane unit capable of meeting the Cryptosporidium removal credit awarded to the membrane. If the control limit for the direct integrity test is exceeded, the membrane unit must be taken off-line for diagnostic testing and repair. The membrane unit may only be returned to service after the repair has been completed and confirmed through the application of a direct integrity test. A monthly report must be submitted to the State summarizing all direct integrity test results above the control limit and the corrective action that was taken in each case.

#### *Continuous Indirect Integrity Monitoring*

Available direct integrity test methods are applied periodically since the membrane unit must be taken out of service to conduct the test. In order to provide some measure of process performance between direct integrity testing events, PWSs must perform continuous indirect integrity monitoring on each membrane unit. Continuous indirect integrity monitoring is defined as monitoring some aspect of filtrate water quality that is indicative of the removal of particulate matter at a frequency of at least once every 15 minutes. If a continuous direct integrity test is implemented that meets the resolution and sensitivity criteria described previously in this section, continuous indirect integrity monitoring is not required.

Unless the State approves an alternative parameter, continuous indirect integrity monitoring must include continuous filtrate turbidity monitoring. If the filtrate turbidity readings are above 0.15 NTU for a period greater than 15 minutes, the PWS must perform direct integrity testing on the associated membrane unit.

If the State approves an alternate parameter for continuous indirect integrity monitoring, the State must approve a control limit for that parameter. If the parameter exceeds the control limit for a period greater than 15 minutes, the PWS must perform direct integrity testing on the associated membrane unit.

PWSs must submit a monthly report to the State summarizing all continuous indirect integrity monitoring results triggering direct integrity testing and the corrective action that was taken in each case.

EPA has developed the Membrane Filtration Guidance Manual to assist

systems with implementation of these requirements. This guidance may be requested from EPA's Safe Drinking Water Hotline, which may be contacted as described under **FOR FURTHER INFORMATION CONTACT** in the beginning of this notice.

#### b. Background and Analysis

In the August 11, 2003 proposed LT2ESWTR, EPA proposed to establish criteria for awarding credit to membrane filtration processes for removal of Cryptosporidium (USEPA 2003g). The Agency based these criteria on data demonstrating the Cryptosporidium removal efficiency of membrane filtration processes, a critical evaluation of available integrity monitoring techniques, and study of State approaches to the regulation of membrane filtration for pathogen removal. This information is summarized in the report *Low-Pressure Membrane Filtration for Pathogen Removal: Application, Implementation, and Regulatory Issues* (USEPA 2001g).

As summarized in this report, a number of studies demonstrate the ability of membrane filtration processes to remove pathogens, including Cryptosporidium, to below detection levels (USEPA 2001g). In some studies that used Cryptosporidium seeding, measured removal efficiencies were as high as 7-log (Jacangelo, et al., 1997; Hagen, 1998; Kachalsky and Masterson, 1993). In other studies, removal efficiencies ranged from 4.4- to 6.5-log and were only limited by the seeded concentration of Cryptosporidium oocysts (Dwyer, et al. 1995, Jacangelo et al. 1989, Trussel, et al. 1998, NSF 2000a-g, Olivieri 1989). Collectively, these results demonstrate that an integral membrane module (i.e., a membrane module without any leaks or defects, with an exclusion characteristic smaller than Cryptosporidium) is capable of removing this pathogen to below detection in the filtrate, independent of the influent concentration.

The 2003 proposal included a provision for challenge testing membranes to demonstrate the removal efficiency of Cryptosporidium. EPA believes this requirement is necessary due to the proprietary nature of these products and the lack of any uniform design criteria for establishing the exclusion characteristic of a membrane. Guidance on the design and conduct of a challenge test to meet the requirements of this rule is presented in the *Membrane Filtration Guidance Manual*.

Challenge testing is required on a product-specific basis, rather than a site-

specific basis; thus, modules used in full-scale facilities will generally not be directly challenge tested. The removal capability of production membrane modules is verified through the application of a non-destructive performance test, such as a bubble point test. A quality control release value (QCRV) for the non-destructive performance test can be related to the results of the challenge test and used to demonstrate the ability of production modules to achieve the Cryptosporidium removal efficiency demonstrated during challenge testing. Most membrane manufacturers have adapted some form of non-destructive testing for the purpose of product quality control and have established a QCRV that is indicative of an acceptable product. It may be possible to apply these existing practices to meet the requirements of today's final rule.

While challenge testing demonstrates the removal efficiency of an integral membrane module, defects or leaks in the membrane or other system components can result in contamination of the filtrate unless they are identified, isolated, and repaired. In order to verify continued performance of a membrane system, today's final rule requires direct integrity testing of membrane filtration processes used to meet the Cryptosporidium treatment requirements of this rule.

An evaluation of available direct integrity tests indicates that pressure-based tests are widely applied and sufficiently sensitive to provide verification of removal efficiencies in excess of 4-log. Marker-based direct integrity tests are also available, and new direct integrity tests may be developed that present an improvement over existing tests. Rather than specify a particular direct integrity test, today's final rule defines performance criteria for direct integrity testing. These criteria are resolution, sensitivity, and frequency, as previously described. EPA believes that this approach will provide flexibility for the development and implementation of future innovations in direct integrity testing while ensuring that any test applied to meet the requirements of this rule will achieve the required level of performance.

Since available direct integrity tests require taking the membrane unit out of service to conduct the test, today's rule establishes a minimum test frequency for direct integrity testing. Currently, there is no standard frequency for direct integrity testing that has been adopted by all States and membrane treatment facilities. In a 2000 survey, the required frequency of integrity testing was found to vary from once every four hours to

once per week; however, the most common frequency for conducting a direct integrity test was once every 24 hours (USEPA 2001g). Specifically, 10 out of 14 States that require periodic direct integrity testing specify a frequency of once per day. Furthermore, many membrane manufacturers of systems with automated integrity test systems set up the membrane units to automatically perform a direct integrity test once per day.

EPA believes that daily direct integrity testing is appropriate for most membrane filtration installations, but under some circumstances, less frequent testing may be adequate. Thus, EPA is allowing States to approve less frequent direct integrity testing on the basis of demonstrated process reliability, use of multiple barriers effective for Cryptosporidium, or reliable process safeguards.

Due to the periodic nature of direct integrity testing, today's rule includes a provision for continuous indirect integrity monitoring. While indirect monitoring is not as sensitive as direct testing, it provides an indication of process performance to ensure that a major failure has not occurred between application of direct integrity tests.

#### c. Summary of Major Comments

In response to the 2003 proposal, the Agency received significant comments on the following issues related to membrane filtration: the frequency of direct integrity testing; the procedure necessary to determine removal credit for membrane filtration; and the requirement for continuous indirect integrity monitoring.

The 2003 proposal requested comment on the proposed minimum direct integrity test frequency of once per day. Some commenters supported the daily frequency and commented that many states have already adopted this standard. Others commented that direct integrity testing once per day is too frequent, citing the lack of data in the proposal documenting the rate of membrane failure, as well as the loss in production that occurs when the membrane unit is taken off-line for testing.

While EPA recognizes these concerns, a critical factor in establishing a testing frequency is the amount of time that water from a compromised membrane unit is supplied to the public before the integrity breach is detected. EPA believes that this factor is most important to public health protection and that daily direct integrity testing is appropriate for the majority of membrane systems. However, EPA also acknowledges that there may be

circumstances under which less frequent testing may provide adequate public health protection, and has revised the rule to allow States to permit less frequent direct integrity testing based on demonstrated process reliability, use of multiple barriers effective for *Cryptosporidium*, or reliable process safeguards.

Several commenters expressed concern with the process needed to determine appropriate removal credit for membrane filtration. However, many commenters also supported the flexibility provided to States in determining the appropriate removal credit for membrane filtration based on the criteria defined in the 2003 proposal. EPA believes that the proposed approach for awarding *Cryptosporidium* removal credit to membrane filtration is supported by the available data and analysis, and will allow higher removal credits to be considered on a scientifically sound basis. EPA recognizes that the flexibility provided in the regulation does increase the complexity of determining removal credits for membrane filtration. To address this issue, EPA has developed extensive guidance to support the implementation of requirements for membrane filtration.

EPA received comment that continuous indirect integrity monitoring is unnecessary due to the poor sensitivity of currently available methods. EPA acknowledges that currently available indirect monitoring methods are less sensitive than available direct integrity tests. However, EPA believes that continuous indirect integrity monitoring is necessary to protect public health. Specifically, continuous monitoring may alert a system of potentially severe integrity breaches that could result in bypass of unfiltered water around the membrane filtration process and pose a risk to public health. Furthermore, EPA has provided States with the flexibility to permit use of more sensitive continuous indirect monitoring methods and/or to establish lower control limits. Also, implementation of continuous direct integrity testing would preclude the need to implement any form of indirect integrity monitoring.

## 12. Second Stage Filtration

### a. Today's Rule

PWSs may receive 0.5-log credit towards the *Cryptosporidium* treatment requirements of today's rule for a second filtration stage. To be eligible for this credit, the second-stage filtration must meet the following criteria:

- The filter must be a separate second stage of granular media filtration, such as sand, dual media, or granular activated carbon (GAC), that follows a first stage of granular media filtration (e.g., follows a conventional treatment or direct filtration plant).
- The first filtration stage must be preceded by a coagulation process.
- Both filtration stages must treat 100 percent of the treatment plant flow.
- The State must approve the treatment credit based on an assessment of the design characteristics of the filtration process.

This microbial toolbox option does not apply to bag filters, cartridge filters, membranes, or slow sand filters, which are addressed separately in the microbial toolbox. Further, this option does not apply to roughing filters, which are pretreatment processes that typically consist of coarse media and are not preceded by coagulation. States may consider awarding treatment credit to roughing filters under a demonstration of performance.

PWSs may not receive additional treatment credit for both second-stage filtration and lower filter effluent turbidity (*i.e.*, combined or individual filter performance) that is based on turbidity levels following the second filtration stage. PWSs may receive credit for both options based on turbidity following the first filtration stage.

### b. Background and Analysis

The Stage 2 M-DBP Advisory Committee recommended a 0.5-log *Cryptosporidium* treatment credit for a roughing filter with the stipulation that EPA identify the design and operational conditions under which such credit is appropriate. After reviewing available data, however, EPA was unable to determine conditions under which a roughing filter is likely to achieve at least 0.5-log removal of *Cryptosporidium*. Roughing filters consist of coarse media like gravel and usually are not preceded by coagulation. They are used to remove sediment and large particulate matter from raw water prior to the primary treatment processes. EPA identified no studies indicating that roughing filters would be effective for removal of *Cryptosporidium* (USEPA 2003a).

In contrast, numerous studies have demonstrated that granular media filtration can be effective for removing *Cryptosporidium* when preceded by coagulation (Patania et al. 1995, Nieminski and Ongerth 1995, Ongerth and Pecoraro 1995, LeChevallier and Norton 1992, LeChevallier et al. 1991, Dugan et al. 2001, Nieminski and Bellamy 2000, McTigue et al. 1998,

Patania et al. 1999, Huck et al. 2000, Emelko et al. 2000). PWSs may implement a second granular media filtration stage to achieve various water quality objectives, such as increased removal of organic material in biologically active filters or removal of inorganic contaminants. Consequently, EPA believes that consideration of additional *Cryptosporidium* treatment credit for a second granular media filtration stage is appropriate.

The August 11, 2003 LT2ESWTR proposal included an additional 0.5-log *Cryptosporidium* treatment credit for PWSs that use a second separate filtration stage consisting of rapid sand, dual media, GAC, or other fine grain media. A cap, such as GAC, on a single stage of filtration did not qualify. In addition, the proposal required the first stage of filtration to be preceded by a coagulation step and both stages had to treat 100 percent of the plant flow. Today's final rule establishes this treatment credit with minimal changes from the proposal. The basis for this credit and for changes from the proposed rule are summarized in the following discussion.

While the studies of *Cryptosporidium* removal by granular media filtration cited previously evaluated only a single stage of filtration, the same removal mechanisms will be operative in a second stage of granular media filtration. Secondary filters may remove *Cryptosporidium* that were destabilized but not trapped in primary filters or that were trapped but subsequently detached from primary filters prior to backwash. Thus, EPA believes these studies are supportive of additional removal credit for a second filtration stage.

An important finding of these studies is that coagulation is necessary to achieve significant *Cryptosporidium* removal by granular media filtration (does not apply to slow sand filtration, which is addressed in the next section). Consequently, today's rule requires that the first filtration stage be preceded by coagulation for a PWS to receive treatment credit for second-stage filtration. This requirement is necessary to ensure that both filtration stages are effective for *Cryptosporidium* removal. PWSs will already comply with this requirement where a second filtration stage is applied after conventional treatment or direct filtration.

In the proposal, EPA also reviewed data provided by a PWS on the removal of aerobic spores through GAC filters (*i.e.*, contactors) following conventional treatment. As discussed earlier, studies have demonstrated that aerobic spores can serve as an indicator of *Cryptosporidium* removal by granular



media filtration (Dugan et al. 2001, Emelko et al. 1999 and 2000, Yates et al. 1998, Mazounie et al. 2000). Over a two year period, the mean removal of aerobic spores across the GAC filters exceeded 0.5-log. These results support the finding that a second stage of granular media filtration can reduce *Cryptosporidium* levels by 0.5-log or greater.

Today's rule does not establish design criteria such as filter depth or media size for second-stage filters to be eligible for treatment credit. While filter design will influence *Cryptosporidium* removal efficiency, EPA recognizes that appropriate filter designs will vary depending on the application. States have traditionally provided oversight for treatment process designs in PWSs. Accordingly, today's rule requires State review and approval of second-stage filter design as a condition for PWSs to receive additional treatment credit for this process. The Microbial Toolbox Guidance Manual addresses second-stage filtration for *Cryptosporidium* treatment credit.

#### c. Summary of Major Comments

Public comment on the August 11, 2003 LT2ESWTR proposal generally supported additional treatment credit for second-stage filtration. Commenters raised specific concerns with EPA establishing design requirements for filtration, the sufficiency of data to support prescribed treatment credit, and the expansion of this credit to include other filtration technologies. These comments and EPA's responses are summarized as follows.

In the proposal, EPA requested comment on whether a minimum filter depth should be required for PWSs to receive treatment credit for a second filtration stage. All commenters opposed EPA setting regulatory design standards for filters on the basis that PWSs and States need the flexibility to determine appropriate treatment designs. In response, EPA agrees that effective filter designs will vary depending on the application. Consequently, EPA is not establishing filter design criteria in today's rule, but is requiring that States approve designs for PWSs to receive treatment credit for second-stage filtration.

Many commenters stated that available data support the prescribed 0.5-log *Cryptosporidium* treatment credit for second-stage filtration. Some commenters provided additional data on the removal of aerobic spores through GAC filters following conventional treatment that showed a mean reduction greater than 1-log. In contrast, other commenters were

concerned about the lack of data to support increased removal through a second filtration stage. These commenters recommended that treatment credit for second-stage filtration should be awarded only on a site-specific basis through a demonstration of performance.

EPA has concluded that available data are sufficient to support the prescribed 0.5-log treatment credit for second-stage filtration. Studies of granular media filtration demonstrate high levels of *Cryptosporidium* removal and one study has shown greater than 1.0-log removal through secondary GAC filters. Secondary filters can remove *Cryptosporidium* that pass through or detach from the primary filters. This added removal will help to stabilize finished water quality by providing a barrier during periods of the filtration cycle when the primary filters are not performing optimally. Therefore, EPA is establishing this credit in today's rule.

Several commenters recommended that EPA expand the second-stage filtration option to include membranes, bag filters, and DE filtration. EPA notes that today's rule establishes prescribed treatment credits specifically for bag and cartridge filters and membranes as microbial toolbox options, and prescribed credit for DE filtration is addressed in section IV.B. PWSs may seek treatment credit for other filtration technologies through a demonstration of performance under today's rule.

#### 13. Slow Sand Filtration

##### a. Today's Rule

PWSs may receive a 2.5-log credit towards the *Cryptosporidium* treatment requirements in today's rule for implementing slow sand filtration as a secondary filtration stage following a primary filtration process. To be eligible for this credit, the slow sand filtration must meet the following criteria:

- The slow sand filter must be a separate second stage of filtration that follows a first stage of filtration like conventional treatment or direct filtration;
- There must be no disinfectant residual in the influent water to the slow sand filtration process;
- Both filtration stages must treat 100 percent of the treatment plant flow from a surface water or GWUDI source; and
- The State must approve the treatment credit based on an assessment of the design characteristics of the filtration process.

Slow sand filtration used as a primary filtration process receives a prescribed 3-log *Cryptosporidium* treatment credit, as described in section IV.B.

##### b. Background and Analysis

Slow sand filtration is a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 m/h), resulting in substantial particulate removal. Several studies have demonstrated that slow sand filtration can achieve significant *Cryptosporidium* removal (Schuler and Ghosh, 1991, Timms et al. 1995, Hall et al. 1994). Slow sand filtration is typically used as a primary filtration process, usually in small systems, rather than as a secondary filtration stage following conventional treatment or another primary filtration process. EPA expects, however, that slow sand filtration would be effective for *Cryptosporidium* removal in such an application, which warrants consideration of treatment credit under today's rule.

The Stage 2 M-DBP Advisory Committee recommended that slow sand filtration receive 2.5-log or greater *Cryptosporidium* treatment credit when used in addition to existing treatment that achieves compliance with the IESWTR or LT1ESWTR. The August 11, 2003 LT2ESWTR proposal included 2.5-log treatment credit for slow sand as a secondary filtration process, with the only associated condition being no disinfectant residual in the water influent to the filter. In today's rule, EPA is establishing this treatment credit with minimal changes from the proposal. The following discussion summarizes the basis for this credit and for changes from the proposal.

Removal of microbial pathogens in slow sand filters is complex and is believed to occur through a combination of physical, chemical, and biological mechanisms, both on the surface and in the interior of the filter bed. In particular, biological activity in the upper layers of the filter is believed to promote microbial removal. Based on previously cited studies demonstrating greater than 4-log removal of *Cryptosporidium* through slow sand filtration, today's rule awards a prescribed 3-log *Cryptosporidium* removal credit to slow sand filtration as a primary filtration process.

The effectiveness of slow sand as a secondary filtration process is more uncertain. In general, EPA expects that the same microbial removal mechanisms will be operative. However, due to the quality of treated water following a primary filtration process, filter ripening and development of the biologically active layer in a secondary slow sand filter may be inhibited. One study that evaluated *Cryptosporidium* removal by slow sand filtration alone



and slow sand filtration preceded by a rapid sand filter observed similar removal levels in the two treatment trains (Hall et al. 1994). Because of the uncertainty regarding the performance of slow sand as a secondary filtration step and in consideration of the Advisory Committee recommendation, today's rule establishes a 2.5-log additional Cryptosporidium treatment credit for this application.

Due to the importance of biological activity to slow sand filter performance, PWSs may not receive the prescribed treatment credit if the influent water to the slow sand filter contains a disinfectant residual. EPA is not establishing design standards for slow sand filters in today's rule. Studies have shown, however, that design deficiencies in slow sand filters may lead to poor Cryptosporidium removal (Fogel et al. 1993). Consequently, States must approve slow sand filter designs as a secondary filtration stage for PWSs to receive treatment credit under today's rule.

#### c. Summary of Major Comments

Public comment on the August 11, 2003 proposal focused on the question of whether the 2.5-log Cryptosporidium treatment credit for slow sand as a secondary filtration process is appropriate. Many commenters supported the proposed treatment credit. These commenters cited studies demonstrating greater than 4-log Cryptosporidium removal by slow sand filtration and concluded that the data justify a 2.5-log treatment credit for slow

sand filtration added to a clarification and filtration treatment train.

Several commenters, however, stated that this treatment credit is not justified due to the lack of data on the performance of slow sand as a secondary filtration step. Available studies on slow sand filter performance for Cryptosporidium removal have mostly been conducted on raw (i.e., unfiltered) water. These commenters were concerned that if slow sand filtration is applied following a primary filtration process, the filter ripening period and other factors will be significantly affected. As a result, the slow sand filtration may provide only limited removal over a long ripening period.

In response, EPA recognizes that little testing has been conducted on the performance of slow sand filtration specifically as a second filtration stage in a treatment train. However, available data do not indicate that slow sand filtration would be substantially less effective when used in this capacity. Slow sand filtration is recommended only for higher quality source waters, and water quality following a primary filtration process would be well within recommended design limits for slow sand filtration (USEPA 1991a). EPA agrees that filter ripening is critical to slow sand filtration achieving its full performance level, and this process may require more time when slow sand filtration follows a primary filtration process. However, this effect may be counterbalanced by very long filter run

times between cleaning the filter due to the high quality influent water. Consequently, EPA believes that 2.5-log Cryptosporidium treatment credit for slow sand as a secondary filtration process is warranted.

#### 14. Ozone and Chlorine Dioxide

##### a. Today's Rule

PWSs may use ozone and chlorine dioxide to meet Cryptosporidium treatment requirements under today's rule. To receive treatment credit, PWSs must measure the water temperature, disinfectant contact time, and residual disinfectant concentration at least once each day and determine the log inactivation credit using the tables in this section. Specific criteria are as follows:

- The temperature of the disinfected water must be measured at least once per day at each residual disinfectant concentration sampling point.
- The disinfectant contact time(s) ("t") must be determined for each day during peak hourly flow.
- The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
- Tables IV.D-3 or IV.D-4 must be used to determine Cryptosporidium log inactivation credit for ozone or chlorine dioxide, respectively, based on the water temperature and the product of disinfectant concentration and contact time (CT).

TABLE IV.D-3.—CT VALUES FOR CRYPTOSPORIDIUM INACTIVATION BY OZONE<sup>1</sup> (MG/L × MIN)

Log credit	Water temperature, °C										
	≤0.5	1	2	3	5	7	10	15	20	25	30
0.25	6.0	5.8	5.2	4.8	4.0	3.3	2.5	1.6	1.0	0.6	0.39
0.5	12	12	10	9.5	7.9	6.5	4.9	3.1	2.0	1.2	0.78
1.0	24	23	21	19	16	13	9.9	6.2	3.9	2.5	1.6
1.5	36	35	31	29	24	20	15	9.3	5.9	3.7	2.4
2.0	48	46	42	38	32	26	20	12	7.8	4.9	3.1
2.5	60	58	52	48	40	33	25	16	9.8	6.2	3.9
3.0	72	69	63	57	47	39	30	19	12	7.4	4.7

<sup>1</sup> PWSs may use this equation to determine log credit between the indicated values:  $\text{Log credit} = (0.0397 \times (1.09757)^{\text{Temp}}) \times \text{CT}$ .

TABLE IV.D-4.—CT VALUES FOR CRYPTOSPORIDIUM INACTIVATION BY CHLORINE DIOXIDE<sup>1</sup> (MG/L × MIN)

Log credit	Water temperature, °C										
	≤0.5	1	2	3	5	7	10	15	20	25	30
0.25	159	153	140	128	107	90	69	45	29	19	12
0.5	319	305	279	256	214	180	138	89	58	38	24
1.0	637	610	558	511	429	360	277	179	116	75	49
1.5	956	915	838	767	643	539	415	268	174	113	73
2.0	1275	1220	1117	1023	858	719	553	357	232	150	98
2.5	1594	1525	1396	1278	1072	899	691	447	289	188	122
3.0	1912	1830	1675	1534	1286	1079	830	536	347	226	147

<sup>1</sup> PWSs may use this equation to determine log credit between the indicated values:  $\text{Log credit} = (0.001506 \times (1.09116)^{\text{Temp}}) \times \text{CT}$ .

PWSs may have several disinfection segments in sequence along the treatment train, where a disinfectant segment is defined as a treatment unit process with a measurable disinfectant residual level and a liquid volume. In determining the total log inactivation, the PWS may calculate the CT for each disinfection segment and use the sum of these values to determine the log inactivation achieved through the plant. The Toolbox Guidance Manual provides information on recommended methodologies for determining CT values for different disinfection reactor designs and operations.

Alternatively, the State may approve alternative CT values to those specified in Tables IV.D-3 or IV.D-4 based on a site-specific study a PWSs conducts following a State-approved protocol. The Toolbox Guidance Manual describes recommended approaches for making such demonstrations.

#### b. Background and Analysis

Ozone and chlorine dioxide are chemical disinfectants that have been shown to be effective for inactivating *Cryptosporidium*. The Stage 2 M-DBP Advisory Committee recommended that EPA develop criteria for PWSs to achieve *Cryptosporidium* inactivation credit with these disinfectants. The August 11, 2003 LT2ESWTR proposal included CT values for 0.5- to 3-log *Cryptosporidium* inactivation credit by ozone or chlorine dioxide at temperatures ranging from less than 0.5 C to 25 C, along with daily required monitoring (USEPA 2003a). Today's final rule establishes these criteria with no changes from the proposed rule, but expands the CT tables down to 0.25-log inactivation and up to a water temperature of 30 C. The following discussion summarizes the basis for these criteria.

The requirements for at least daily monitoring of the water temperature, residual disinfectant concentration, and contact time during peak hourly flow to determine a daily inactivation level reflect existing requirements for *Giardia* inactivation by chemical disinfection in 40 CFR 141.74. EPA expects that in practice, many PWSs using ozone or chlorine dioxide will monitor more frequently and for multiple disinfectant segments. In the Toolbox Guidance Manual, EPA provides information on recommended approaches for monitoring and calculating CT values for ozone and chlorine dioxide reactors.

The CT values for both ozone and chlorine dioxide are based on analyses by Clark *et al.* (2002a,b), with additional procedures to assess confidence bounds. Clark *et al.* (2002a,b) developed

predictive equations for *Cryptosporidium* inactivation through evaluating studies on ozone by Rennecker *et al.* (1999), Li *et al.* (2001), Owens *et al.* (2000), and Oppenheimer *et al.* (2000) and on chlorine dioxide by Li *et al.* (2001), Owens *et al.* (1999) and Ruffell *et al.* (2000). EPA applied confidence bounds to these predictive equations to ensure that PWSs operating at a given CT value are likely to achieve at least the corresponding log inactivation level in the CT table.

In identifying confidence bounds for CT values, EPA was primarily concerned with uncertainty in the estimations by Clark *et al.* (2002a,b) of the linear relationship between log inactivation and CT (*i.e.*, uncertainty in the regression) and with real variability in the inactivation rate. Such real variability could be associated with different populations of oocysts and different water matrices. In contrast, variability associated with experimental error, such as the assays used to measure loss of infectivity, was a lesser concern. The purpose of the CT tables is to ensure a given level of inactivation and not to predict the measured result of an individual experiment.

For developing earlier CT values, EPA has used bounds for confidence in prediction, which account for both real variability and experimental error. EPA believes that this approach was appropriate due to limited inactivation data and uncertainty in the sources of variability in the data. However, the high doses of ozone and chlorine dioxide necessary to inactivate *Cryptosporidium* create an offsetting concern with the formation of DBPs (*e.g.*, bromate and chlorite). In consideration of this concern, EPA has employed a less conservative method to calculate confidence bounds for the ozone and chlorine dioxide CT values in today's rule; specifically, EPA has attempted to exclude experimental error from the confidence bounds.

In order to estimate confidence bounds that exclude experimental error, EPA assessed the relative contribution of experimental error to the variance observed in the *Cryptosporidium* inactivation data sets. This assessment was done by comparing variance among data points with consistent experimental conditions, which was attributed to experimental error, with the total variance in a data set. By this analysis, EPA estimated that 87.5 and 62 percent of the variance in the *Cryptosporidium* inactivation data for ozone and chlorine dioxide, respectively, could be ascribed to experimental error (Sivaganesan 2003, Messner 2003). EPA then applied these

estimates to the predictive equations developed by Clark *et al.* (2002a,b) using a modified form of a formula for calculating a 90 percent confidence bound (Messner 2003).

This analysis produced the CT values shown in tables IV.D-3 and IV.D-4 for ozone and chlorine dioxide, respectively. CT values are provided for inactivation as low as 0.25-log. Such a low inactivation level may be used by PWSs applying ozone in combination with other disinfectants. Available data do not support the determination of conditions for inactivation greater than 3-log, so the CT values in today's rule do not go beyond this level. The temperature range of CT values in today's rule goes to 30 C (86 F), which will accommodate most natural waters. If the water temperature is higher than 30 C, temperature should be set to 30 C for the log inactivation calculation. PWSs may use the equations provided as footnotes to tables IV.D-3 and IV.D-4 to interpolate between CT values.

EPA recognizes that inactivation rates may be sensitive to water quality and operational conditions at individual PWSs. To reflect this potential, PWSs are allowed to perform a site-specific inactivation study to determine CT requirements. The State must approve the protocols or other information used to derive alternative CT values. EPA has provided guidance for such studies in the Toolbox Guidance Manual.

#### c. Summary of Major Comments

Public comment on the August 11, 2003 LT2ESWTR proposal supported the inclusion of ozone and chlorine dioxide in the microbial toolbox for *Cryptosporidium* inactivation. Commenters stated concerns with the required criteria for achieving *Cryptosporidium* treatment credit, including the conservatism EPA applied in developing the CT tables, the ability of PWSs with different types of source waters to use these disinfectants, and the range of conditions covered by the CT tables. Commenters also made recommendations for guidance. These comments and EPA's responses are summarized as follows.

Some commenters supported the proposed CT tables, but others stated that the statistical approach used to calculate the confidence bounds from which the CT values are derived is overly conservative. These commenters were concerned that this approach will increase capital and operating costs and lead to higher byproduct levels.

In response, EPA believes that the confidence bounds used for the ozone and chlorine dioxide CT tables in today's rule are appropriate and

necessary to ensure that PWSs achieve intended levels of *Cryptosporidium* inactivation. They account only for uncertainty in the regression of inactivation data and for variability in inactivation data that cannot be attributed to experimental error. This approach is significantly less conservative than the approaches used in CT tables for earlier rules. EPA employed this less conservative approach in recognition of the high disinfectant doses necessary for *Cryptosporidium* inactivation and concern with byproducts.

Commenters were concerned that due to the relatively high ozone and chlorine dioxide doses necessary for *Cryptosporidium* inactivation, some PWSs will be unable to use these disinfectants to achieve required levels of *Cryptosporidium* treatment. In particular, using ozone for high *Cryptosporidium* inactivation levels will be difficult in areas where cold water temperatures would necessitate especially high doses or where high source water bromide levels would cause problems with bromate formation. The use of chlorine dioxide for *Cryptosporidium* inactivation may be difficult due to chlorite formation.

EPA recognizes that the use of ozone and chlorine dioxide to achieve *Cryptosporidium* inactivation will depend on source water factors and will not be feasible for all PWSs. Due to the availability of UV, which EPA has determined to be a feasible technology for *Cryptosporidium* inactivation by all PWS sizes, the feasibility of today's rule does not depend on the widespread use

of ozone or chlorine dioxide for compliance. In assessing the impact of today's rule on PWSs, EPA used ICR survey data to estimate the fraction of PWSs that could use ozone or chlorine dioxide to achieve different levels of *Cryptosporidium* inactivation without exceeding DBP MCLs (see Economic Analysis for the LT2ESWTR). While EPA expects that some PWSs will use these disinfectants, the microbial toolbox provides many other options for PWSs to comply with the *Cryptosporidium* treatment requirements of today's rule.

Commenters recommended that EPA expand the range of conditions encompassed in the CT tables. Specifically, commenters asked that CT tables include values for water temperatures above 25 C and supported this request by providing data showing temperature profiles for water sources with maximum temperatures near 30 C. Commenters also requested CT values for *Cryptosporidium* inactivation levels below 0.5-log for PWSs that will use multiple disinfectants to meet the treatment requirements in today's rule. In addition, commenters suggested that EPA provide equations that PWSs can use to interpolate between the listed CT values.

EPA has addressed these recommendations in today's final rule. The CT tables for ozone and chlorine dioxide include values for a water temperature of 30 C and for 0.25-log inactivation. Footnotes to these tables contain equations that PWSs can use to calculate log inactivation credit for conditions between those provided in

the tables. PWSs may use these equations in their process control systems.

Commenters made recommendations for guidance on the use of ozone and chlorine dioxide to comply with today's rule. These recommendations concern topics like monitoring disinfection reactors, procedures for calculating disinfectant concentration and contact time, site specific studies, and synergistic effects of multiple disinfectants. EPA has addressed these topics in the Toolbox Guidance Manual.

#### 15. Ultraviolet Light

##### a. Today's Rule

PWSs may use ultraviolet (UV) light to comply with *Cryptosporidium* treatment requirements in today's rule, as well as *Giardia lamblia* and virus treatment requirements in existing regulations. To receive treatment credit, PWSs must operate UV reactors validated to achieve the required UV dose, as shown in the table in this section, and monitor their UV reactors to demonstrate operation within validated conditions. Specific criteria are as follows:

##### Required UV Doses

- UV dose (fluence) is the product of the UV intensity over a surface area (fluence rate) and the exposure time. PWSs must use validation testing to demonstrate that a UV reactor achieves the UV doses shown in Table IV.D-5 in order to receive the associated inactivation credit.

TABLE IV.D-5.—UV DOSE REQUIREMENTS FOR CRYPTOSPORIDIUM, GIARDIA LAMBLIA, AND VIRUS INACTIVATION CREDIT

Log credit	<i>Cryptosporidium</i> UV dose (mJ/cm <sup>2</sup> )	<i>Giardia lamblia</i> UV dose (mJ/cm <sup>2</sup> )	Virus UV dose (mJ/cm <sup>2</sup> )
0.5	1.6	1.5	39
1.0	2.5	2.1	58
1.5	3.9	3.0	79
2.0	5.8	5.2	100
2.5	8.5	7.7	121
3.0	12	11	143
3.5	15	15	163
4.0	22	22	186

- The dose values in Table IV.D-5 are for UV light at a wavelength of 254 nm as delivered by a low pressure mercury vapor lamp. However, PWSs may use this table to determine treatment credits for other lamp types through validation testing, as described in the UV Disinfection Guidance Manual. The dose values in Table IV.D-5 apply to post-filter applications of UV in filtration plants and to PWSs that meet

all applicable filtration avoidance criteria.

##### UV Reactor Validation Testing

- The validation test may be reactor-specific or site-specific. Unless the State approves an alternative approach, this testing must involve the following: (1) Full scale testing of a reactor that conforms uniformly to the UV reactors used by the PWS, and (2) inactivation of a test microorganism whose dose

response characteristics have been quantified with a low pressure mercury vapor lamp.

- Validation testing must identify ranges for parameters the PWS can monitor to ensure that the required UV dose is delivered during operation. These parameters must include flow rate, UV intensity as measured by UV sensors, and UV lamp status.

- The operating parameters determined by validation testing must

account for the following factors: (1) UV absorbance of the water, (2) lamp fouling and aging, (3) measurement uncertainty of UV sensors, (4) dose distributions arising from the flow velocity profiles through the reactor, (5) failure of UV lamps or other critical system components, and (6) inlet and outlet piping or channel configurations of the UV reactor. In the UV Disinfection Guidance Manual, EPA describes recommended approaches for reactor validation that address these factors.

#### UV Reactor Monitoring

- PWSs must monitor for the parameters necessary to demonstrate operation within the validated conditions of the required UV dose. These parameters must include flow rate, UV intensity as measured by UV sensors, and UV lamp status. PWSs must check the calibration of UV sensors and recalibrate in accordance with a protocol approved by the State.
- For PWSs using UV light to meet microbial treatment requirements, at least 95 percent of the water delivered to the public every month must be treated by UV reactors operating within validated conditions for the required UV dose.

#### b. Background and Analysis

Numerous studies have demonstrated that UV light is effective for inactivating *Cryptosporidium*, *Giardia lamblia*, and other microbial pathogens at relatively low doses (Clancy et al. 1998, 2000, 2002, Bukhari et al. 1999, Craik et al. 2000, 2001, Landis et al. 2000, Sommer et al. 2001, Shin et al. 2001, and Oppenheimer et al. 2002). EPA has determined that UV light is a feasible technology for PWSs of all sizes to inactivate *Cryptosporidium*. Accordingly, EPA expects that UV is one of the primary technologies PWSs will use to comply with *Cryptosporidium* treatment requirements in today's rule.

The Stage 2 M-DBP Advisory Committee recommended that EPA establish standards for the use of UV to comply with drinking water treatment requirements. These standards include the UV doses necessary for different levels of *Cryptosporidium*, *Giardia lamblia*, and virus inactivation and a protocol for validating the disinfection performance of UV reactors. The Committee also directed EPA to develop a UV disinfection guidance manual to familiarize States and PWSs with important design and operational issues for UV installations.

The August 11, 2003 LT2ESWTR proposal included UV doses for PWSs to

achieve treatment credit of up to 3-log for *Cryptosporidium* and *Giardia lamblia* and up to 4-log for viruses, along with associated reactor validation and monitoring requirements. The proposal also required unfiltered PWSs using UV to achieve the UV dose for the required level of *Cryptosporidium* inactivation in at least 95 percent of the water delivered to the public every month (USEPA 2003a).

Today's final rule establishes these criteria with no changes from the proposed rule. However, EPA has expanded the UV dose table to include 4-log inactivation of *Cryptosporidium* and *Giardia lamblia* and has expanded the 95 percent compliance requirement to include filtered PWSs and to cover *Giardia lamblia* and virus inactivation. The following discussion summarizes the basis for these criteria.

The UV dose values in Table IV.D-5 are based on meta-analyses of UV inactivation studies with *Cryptosporidium parvum*, *Giardia lamblia*, *Giardia muris*, and adenovirus (Qian et al. 2004, USEPA 2003a). EPA has expanded the dose values for *Cryptosporidium* and *Giardia lamblia* from 3- to 4-log inactivation because available data support criteria for this level of treatment. Neither today's rule nor any existing regulations require PWSs to provide *Cryptosporidium* inactivation above this level, so EPA has not expanded the UV dose tables further. While today's rule requires up to 5.5-log *Cryptosporidium* treatment by filtered PWSs, at least 2.0-log of this treatment must be achieved by physical removal.

The required UV doses for inactivation of viruses are based on the dose-response of adenovirus because among waterborne pathogenic viruses that have been studied, it appears to be the most UV resistant. As summarized in Embrey (1999), adenoviruses have been identified as the second most important agent of gastroenteritis in children and can cause significant adverse health effects, including death, in persons with compromised immune systems. They are associated with fecal contamination in water and have been implicated in waterborne disease outbreaks.

EPA used data from studies performed with low pressure mercury vapor lamps on water with turbidity representative of filtered water to derive the UV dose values in Table IV.D-5. Studies with low pressure mercury vapor lamps were selected because they allow the UV dose to be accurately quantified (see USEPA 2003a for specific studies). The UV dose values in Table IV.D-5 can be applied to medium

pressure mercury vapor lamps and other lamp types through UV reactor validation testing, as described in the UV Disinfection Guidance Manual. Due to the potential for particulate matter to interfere with UV disinfection, the application of these dose values is limited to post-filtration in filtered PWSs and to unfiltered PWSs.

Flow-through UV reactors deliver a distribution of doses due to variations in light intensity and particle flow path through the reactor. To best account for the dose distribution, the validation test must use a challenge microorganism to determine the degree of inactivation achieved by the UV reactor. This level of performance must then be associated to the UV dose requirements in Table IV.D-5 through known dose-response relationships for the challenge microorganism and target pathogen in order to assign disinfection credit to the UV reactor. States may approve an alternative basis for awarding UV disinfection credit.

Today's rule requires full-scale testing of UV reactors to validate the operating conditions under which the reactors can deliver a required UV dose. EPA believes this testing is necessary due to the uncertainty associated with predicting reactor disinfection performance entirely through modeling or through reduced-scale testing. Under today's rule, EPA intends UV reactor validation testing to be reactor-specific and not site-specific. This means that once a UV reactor has been validated for a range of operating conditions, the validation test results can be applied by all PWSs that will operate within those conditions without the need for retesting at each individual site.

Validation testing must account for factors that will influence the dose delivered by UV reactors during routine operation. These factors include UV absorbance, lamp fouling, lamp-aging, the performance of UV intensity sensors, hydraulic flow path and residence time distributions, UV lamp failure, and reactor inlet and outlet hydraulics. The successful outcome of validation testing is the determination of acceptable operating ranges for parameters the PWSs can monitor to ensure delivery of the required UV dose during treatment. The specific parameters will vary depending on the reactor control strategy. In all cases, however, PWSs must monitor UV intensity within the reactor as measured by UV sensors, the flow rate, and the status of lamps. EPA believes that any effective UV reactor control strategy will involve monitoring for these parameters.

Today's rule requires all PWSs using UV for disinfection compliance to treat



at least 95 percent of the water distributed to the public each month with UV reactors operating within validated conditions for the required UV dose. EPA views this 95 percent limit as a feasible minimum level of performance for PWSs to achieve, while ensuring the desired level of health protection is provided. For purposes of design and operation, PWSs should strive to deliver the required UV dose at all times during treatment.

EPA developed these requirements and the associated UV Disinfection Guidance Manual solely for public water systems using UV light to meet drinking water disinfection standards established under SDWA. EPA has not addressed and did not consider the extension of these requirements and guidance to other applications, including point of entry or point of use devices for residential water treatment that are not operated by public water systems to meet SDWA disinfection standards.

#### c. Summary of Major Comments

Public comment on the August 11, 2003 LT2ESWTR proposal supported the inclusion of UV light in the microbial toolbox for Cryptosporidium inactivation. EPA received significant comment on the UV dose tables, the use of adenovirus as the basis for virus UV dose requirements, UV compliance standards for filtered systems, and safety factors associated with draft guidance. These comments and EPA's responses are summarized as follows.

Commenters generally supported the proposed UV dose values for Cryptosporidium and Giardia lamblia inactivation and recommended that EPA incorporate these values into the final rule. Several commenters requested that EPA provide values for 3.5-, 4.0- or higher log inactivation of Cryptosporidium and Giardia lamblia because available dose-response data include this range. Due to factors like tailing and censoring in the underlying dose-response data, some commenters stated that the proposed UV dose values are conservative and advised EPA to consider this conservatism when recommending additional safety factors in guidance.

In response, EPA has extended the UV dose table in today's rule to cover 3.5- and 4.0-log Cryptosporidium and Giardia lamblia inactivation. None of EPA's regulations require inactivation of Cryptosporidium or Giardia lamblia above these levels, so EPA has not established UV dose requirements for inactivation above 4-log. EPA believes that the statistical analysis used to determine the required UV doses

appropriately accounts for variability, tailing, and censoring in the underlying dose-response data. However, the required UV dose values do not account for bias and uncertainty associated with UV reactor validation and monitoring, which are addressed in guidance.

Several commenters were concerned with the use of adenovirus to set UV dose requirements for virus inactivation because the resulting dose values are several times higher than typical UV doses for drinking water disinfection. These high dose values impact the feasibility of PWSs using UV to fully meet virus treatment requirements, which will hinder the use of UV to reduce DBPs and for point-of-entry treatment. Commenters requested that EPA consider waterborne viruses that are more UV-sensitive, such as rotavirus or hepatitis, when setting UV dose requirements. Commenters noted that adenovirus commonly causes infections of the lung or eye, which are not transmitted through water consumption, and that no drinking water outbreaks associated with adenovirus have been reported in the United States.

EPA recognizes that the UV doses for virus inactivation in today's rule are relatively high and that this will limit the degree to which PWSs can use UV for virus treatment. Based on occurrence and health effects, however, EPA continues to believe that UV dose requirements should be protective for adenovirus. The existing requirement for 4-log virus treatment, as established under the SWTR, applies to all waterborne viruses of public health concern in PWSs. Adenovirus is consistently found in water subject to fecal contamination and can be transmitted through consumption of or exposure to contaminated water. It is a common cause of diarrheal illness, particularly in children, and fecal shedding is prevalent in asymptomatic adults. While illness from adenovirus is typically self-limiting, severe health effects, including death, can occur. Consequently, EPA regards adenovirus as a potential health concern in PWSs and has established UV dose requirements to address it.

Many commenters recommended that EPA establish a compliance standard for the operation of UV reactors within validated conditions by filtered PWSs, similar to the 95 percent standard proposed for unfiltered PWSs. Commenters were concerned that without a clear compliance standard in the rule, filtered PWSs would be held to inconsistent and unclear standards, which would impede the design and implementation of UV systems. Some commenters recommended that filtered

PWSs be held to the same 95 percent standard as unfiltered PWSs, while others recommended a lower 90 percent standard on the basis that filtered PWSs have more barriers of protection.

EPA agrees that establishing a clear compliance standard for the use of UV to meet inactivation requirements is appropriate. For filtered PWSs using UV to meet microbial treatment requirements, today's final rule requires at least 95 percent of the water distributed to consumers to be treated by UV reactors operating within validated conditions. This is the same standard that applies to unfiltered PWSs. EPA believes that a 95th percentile standard is feasible for all PWSs and represents the minimum level of performance that should be achieved. During routine operation, PWSs should endeavor to maintain UV reactors within validated conditions for the required UV dose at all times.

#### E. Disinfection Benchmarking for Giardia lamblia and Viruses

##### 1. Today's Rule

The purpose of disinfection benchmarking under today's rule is to ensure that PWSs maintain protection against microbial pathogens as they implement the Stage 2 DBPR and LT2ESWTR. If a PWS proposes to make a significant change in disinfection practice, the PWS must perform the following:

- Develop a disinfection profile for Giardia lamblia and viruses. A disinfection profile consists of documenting Giardia lamblia and virus log inactivation levels at least weekly over a period of at least one year. PWSs that operate for less than one year must profile only during the period of operation. The calculated log inactivation levels must include the entire treatment plant and must be based on operational and water quality data, such as disinfectant residual concentration(s), contact time(s), temperature(s), and, where necessary, pH. PWSs may create profiles by conducting new weekly (or more frequent) monitoring and/or by using previously collected data. A PWS that created a Giardia lamblia disinfection profile under the IESWTR or LT1ESWTR may use the operational data collected for the Giardia lamblia profile to create a virus disinfection profile.

- Calculate a disinfection benchmark, using the following procedure: (1) Determine the calendar month with the lowest log inactivation; (2) The lowest month becomes the critical period for that year; (3) If acceptable data from



multiple years are available, the average of critical periods for each year becomes the benchmark; (4) If only one year of data is available, the critical period for that year is the benchmark.

- Notify the State before implementing the significant change in disinfection practice. The notification to the State must include a description of the proposed change, the disinfection profiles and inactivation benchmarks for *Giardia lamblia* and viruses, and an analysis of how the proposed change will affect the current inactivation benchmarks.

For the purpose of these requirements, significant changes in disinfection practice are defined as (1) moving the point of disinfection (this is not intended to include routine seasonal changes already approved by the State), (2) changing the type of disinfectant, (3) changing the disinfection process, or (4) making other modifications designated as significant by the State. The Disinfection Profiling and Benchmarking Guidance Manual provides information to PWSs and States on the development of disinfection profiles, identification and evaluation of significant changes in disinfection practices, and considerations for setting an alternative benchmark (USEPA 1999d).

## 2. Background and Analysis

A goal in the development of rules to control microbial pathogens and disinfection byproducts (DBPs) is the balancing risks between these two classes of contaminants. EPA established disinfection profiling and benchmarking under the IESWTR and LT1ESWTR, based on a recommendation by the Stage 1 M-DBP Advisory Committee, to ensure that PWSs maintained adequate protection against pathogens as they reduced risk from DBPs. EPA is extending profiling and benchmarking requirements to the LT2ESWTR for the same objective.

Some PWSs will make significant changes in their current disinfection practice to meet TTHM and HAA5 requirements under the Stage 2 DBPR and to provide additional treatment for *Cryptosporidium* under the LT2ESWTR. To ensure that these PWSs maintain disinfection that is effective against a broad spectrum of microbial pathogens, EPA believes that PWSs and States should evaluate the effects of significant changes in disinfection practice on current microbial treatment levels. Disinfection profiling and benchmarking serves as a tool for making such evaluations.

The August 11, 2003 LT2ESWTR proposal included disinfection profiling

and benchmarking requirements. Under the proposal, profiling for *Giardia lamblia* and viruses was required if a PWS was required to monitor for *Cryptosporidium* or, in the case of small PWSs, exceeded 80 percent of the TTHM or HAA5 MCL based on a locational running annual average. Under this approach, most large PWSs and a significant fraction of small PWSs were required to develop profiles. The proposal also included a schedule for disinfection profile development. Those PWSs that developed profiles were then required to calculate a disinfection benchmark and notify the State if they proposed to make a significant change in disinfection practice.

In today's final rule, EPA has significantly modified the applicability requirements for disinfection profiling. PWSs are only required to develop a disinfection profile if they propose to make a significant change in disinfection practice after completing the first round of source water monitoring. EPA has made this change from the proposal because under the LT2ESWTR and Stage 2 DBPR, most PWSs will not be required to make significant changes to their disinfection practice. Consequently, most PWSs will not need a disinfection profile. EPA believes that disinfection profiling requirements should be targeted to those PWSs that will make significant disinfection changes.

EPA has also eliminated the scheduling requirements for development of the disinfection profile in order to provide more flexibility to PWSs and States. Today's rule only requires that PWSs notify States prior to making a significant change in their disinfection practice and that this notification include the disinfection profiles and benchmarks, along with an analysis of how the proposed change will affect the current benchmarks. EPA believes that PWSs should collect the operational data needed to develop disinfection profiles, such as disinfectant residual, water temperature, and flow rate, as part of routine practice. PWSs that do not have current disinfection profiles should record this operational information at least weekly for one year so that they can use it to develop disinfection profiles if required.

Today's rule retains the proposed requirement that when disinfection profiling is required, PWSs must develop profiles for both *Giardia lamblia* and viruses. EPA believes that profiling for both target pathogens is appropriate because the types of treatment changes that PWSs will make to comply with the Stage 2 DBPR or LT2ESWTR could lead to a significant

change in the inactivation level for one pathogen but not the other. For example, a PWS that switches from chlorine to UV light to meet *Giardia lamblia* inactivation requirements is likely to maintain a high level of treatment for this pathogen. The level of treatment for viruses, however, may be significantly reduced. In general, viruses are much more sensitive to chlorine than *Giardia* but are more resistant to UV. The situation for a PWS switching to microfiltration is similar. The same operational data are used to develop disinfection profiles for both *Giardia lamblia* and viruses.

As was the case with the IESWTR and LT1ESWTR, the disinfection benchmark under today's rule is not intended to function as a regulatory standard. Rather, the objective of these provisions is to facilitate interactions between the States and PWSs to assess the impact on microbial risk of proposed changes to disinfection practice. Final decisions regarding levels of disinfection for *Giardia lamblia* and viruses beyond the minimum required by regulation will continue to be left to the States and PWSs. To ensure that the level of treatment for both protozoan and viral pathogens is appropriate, States and PWSs should consider site-specific factors such as source water contamination levels and the reliability of treatment processes.

## 3. Summary of Major Comments

EPA received significant public comment on disinfection profiling and benchmarking requirements in the August 11, 2003 proposal. A few commenters supported the proposed requirements but most raised concerns with the burden and usefulness of disinfection profiling and requested greater flexibility. These comments and EPA's responses are summarized as follows.

Commenters stated that disinfection profiling diverts PWS and State resources from other public health protection activities and presents an incomplete picture of the information that should be considered when evaluating disinfection changes. Further, some States can only require the level of treatment specified in regulations (e.g., the SWTR, IESWTR, LT1ESWTR) and cannot use a disinfection benchmark to enforce a higher treatment standard. Some commenters also disagreed with requiring a disinfection profile for viruses, since current disinfection practices targeting *Giardia lamblia* typically achieve much greater virus inactivation than required.

To address these concerns, commenters requested that profiling only be required for PWSs prior to switching disinfectants or that States be allowed to grant waivers from disinfection profiling requirements. Commenters also recommended that States be given flexibility to determine the appropriate time for PWSs to develop disinfection profiles, if necessary. In regard to virus profiling, some commenters suggested that it only be required for PWSs that have not developed profiles for *Giardia lamblia* or that are switching disinfectants to UV.

In response, EPA has modified the proposed requirements for disinfection profiling and benchmarking from the proposal to significantly reduce the burden on PWSs and States. In today's final rule, profiling is only required for PWSs that propose to make a significant change in disinfection practice. EPA projects that most PWSs will not be required to make treatment changes to comply with the LT2ESWTR and Stage 2 DBPR and, as a result, will not be required to develop disinfection profiles. Further, today's rule gives PWSs and States flexibility to determine the timing for developing disinfection profiles and only requires that the profiles and benchmarks be included in a notification to the State before a PWS implements a significant change in disinfection practice. For PWSs that have not developed disinfection profiles, EPA recommends recording the necessary operational data at least weekly over one year so that a profile can be prepared if needed.

For PWSs that propose to make a significant change in disinfection practice, today's rule maintains the proposed requirement for a disinfection profile for viruses. EPA recognizes that current disinfection practices with chlorine typically achieve far more virus inactivation than required. However, the types of treatment changes that PWSs will make to comply with the Stage 2 DBPR or LT2ESWTR, such as implementing UV or microfiltration, are likely to maintain high levels of treatment for *Giardia lamblia* but may result in a significant decrease in treatment for viruses. Consequently, EPA believes that States and PWSs should consider whether such a decrease in virus treatment will occur when evaluating proposed treatment changes.

Moreover, developing a virus disinfection profile does not require the collection of operational data beyond that necessary to develop a *Giardia lamblia* disinfection profile. Therefore, today's rule allows PWSs to use

previously developed *Giardia lamblia* disinfection profiles and allows the operational data that underlie the *Giardia lamblia* profile to be used for a virus disinfection profile.

#### F. Requirements for Systems With Uncovered Finished Water Storage Facilities

##### 1. Today's Rule

Today's rule requires PWSs that store treated water in an open reservoir (i.e., use uncovered finished water storage facilities) to do either of the following:

- Cover the finished water storage facility; or
- Treat the discharge of the uncovered finished water storage facility that is distributed to consumers to achieve inactivation and/or removal of 4-log virus, 3-log *Giardia lamblia*, and 2-log *Cryptosporidium*.

PWSs must notify the State if they use uncovered finished water storage facilities no later than April 1, 2008. PWSs must either meet the requirements of today's rule for covering or treating each facility or be in compliance with a State-approved schedule for meeting these requirements no later than April 1, 2009.

Today's rule revises the definition of an uncovered finished water storage facility as follows: uncovered finished water storage facility is a tank, reservoir, or other facility used to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection and is directly open to the atmosphere.

##### 2. Background and Analysis

The requirements in today's rule for PWSs that use uncovered finished water storage facilities (open reservoirs) are based on an assessment of the types and sources of contaminants in open reservoirs, the efficacy and feasibility of regulatory approaches to reduce risks from this contamination, and comments on the August 11, 2003 proposal. The following discussion summarizes this assessment.

a. *Types and sources of contaminants in open reservoirs.* The storage of treated drinking water in open reservoirs can lead to significant water quality degradation and health risks to consumers (USEPA 1999e). Examples of such water quality degradation include increases in algal cells, coliform bacteria, heterotrophic plate count bacteria, turbidity, particulates, DBPs, metals, taste and odor, insect larvae, *Giardia*, *Cryptosporidium*, and nitrate (USEPA 1999e). Contamination of open reservoirs occurs through surface water runoff, bird and animal wastes, human

activity, algal growth, insects and fish, and airborne deposition. Additional information on these sources of contamination follows.

If a reservoir receives surface water runoff, the SWTR requires that it be treated as raw water storage, rather than a finished water reservoir (40 CFR 141.70(a)). Nevertheless, many uncovered finished water reservoirs have been found to be affected by surface water runoff, which may include agricultural fertilizers, pesticides, microbial pathogens, automotive fluids and residues, sediment, nutrients, natural organic matter, and metals (USEPA 1999e, LeChevallier et al. 1997).

Birds are a significant cause of contamination in open reservoirs, and bird feces may contain coliform bacteria, viruses, and other human pathogens, including vibrio cholera, *Salmonella*, *Mycobacteria*, Typhoid, *Giardia*, and *Cryptosporidium* (Geldreich and Shaw 1993). Birds can ingest pathogens at landfills or wastewater treatment plants prior to visiting a reservoir and have been shown to carry and pass infectious *Cryptosporidium parvum* (Graczyk et al. 1996). Five to twenty percent of birds are estimated to be periodically infected with human pathogens like *Salmonella* (USEPA 1999e). A 1993 *Salmonella* outbreak in Gideon, MO that resulted in seven deaths was traced to pigeons roosting in a finished water storage tank.

Animals that are either known or suspected to contaminate open reservoirs include dogs, cats, deer, rats, mice, opossums, squirrels, muskrats, raccoons, beavers, rabbits, and frogs. Some animals are infected with human pathogens like *Cryptosporidium*, which can be discharged to the reservoirs in feces or transmitted by direct contact between animals and the water (Fayer and Unger 1986, Current 1986, USEPA 1999e).

Open reservoirs are exposed to contamination through human activities. Pesticides and fertilizers can enter open reservoirs through runoff and airborne drifts from spray applications. Swimming in reservoirs can result in pathogens being passed from the feces, shed skin, and mucus membranes of infected persons. PWSs routinely find a great variety of items that have been thrown into open reservoirs, despite the use of high fences and set-back distances. Such items include baby carriages, beer bottles, bicycles, bullets, dead animals, dog waste bags, fireworks, garbage cans, a pay phone, shoes, and shovels (USEPA 1999e). These items are a potential source of pathogens and toxic substances and clearly indicate the

susceptibility of open reservoirs to intentional contamination.

Algal growth is common in open reservoirs and can lead to aesthetic problems like color, taste, and odor, and may generate cyanobacterial toxins, which cause headaches, fever, diarrhea, abdominal pain, nausea, and vomiting. In addition, algae can increase other contaminants like DBPs by increasing biomass within reservoirs, and corrosion products like lead, through causing significant pH fluctuations. Algae have been shown to shield bacteria from the effects of disinfection (Geldreich and Shaw 1993).

Open reservoirs may be infested with the larvae of insects such as midge flies, water fleas, and gnats, which can be carried through the distribution system from the reservoir (USEPA 1999e). Chlorination is ineffective against midge fly larvae. Fly outbreaks may increase the presence of insect-eating birds, which present another source of contamination as described earlier. Some open finished water reservoirs have been found to support fish populations.

Open reservoirs also are subject to airborne deposition of contaminants, such as industrial pollutants, automobile emissions, pollen, dust, particulate matter, and bacteria. Deposition occurs during all types of weather conditions, but is likely to be accelerated during precipitation events as air pollutants are transported from the air column above the reservoir by rain or snow.

b. *Regulatory approaches to reduce risk from contamination in open reservoirs.* For many decades, public health agencies and professional associations like the American Public Health Association, the U.S. Public Health Service, and the American Water Works Association have recommended that all finished water reservoirs be covered (USEPA 1999e). In the IESWTR and LT1ESWTR, EPA prohibited the construction of new uncovered finished water reservoirs (40 CFR 141.170(c) and 141.511). These regulations did not address existing uncovered finished water reservoirs, however. In the preamble to the IESWTR, EPA stated that a requirement to cover existing reservoirs would be considered when data to develop national cost estimates were available.

EPA has now collected the necessary data to estimate costs associated with regulatory control strategies for uncovered finished water reservoirs. The August 11, 2003 LT2ESWTR proposal included three options for PWSs with uncovered finished water reservoirs to reduce risk: (1) cover the

reservoir, (2) treat the discharge to achieve 4-log virus inactivation, or (3) implement a State-approved risk mitigation plan (USEPA 2003a). These options reflected recommendations from the Stage 2 M-DBP Advisory Committee (USEPA 2000a). Today's final rule includes the first option to cover, modifies the second option to also require 3-log *Giardia* and 2-log *Cryptosporidium* treatment, and does not establish an option for a risk mitigation plan. The following discussion describes the basis for these changes.

As described earlier, studies have shown that small mammals and birds that live near water may be infected with *Cryptosporidium* and *Giardia* and may shed infectious oocysts and cysts into the water (Graczyk et al. 1996, Fayer and Unger 1986, Current 1986). LeChevallier et al. (1997) evaluated *Cryptosporidium* and *Giardia* levels in six uncovered finished water reservoirs. The geometric mean concentration of *Cryptosporidium* was 1.2 oocysts/100 L in the inlet samples and 8.1 oocysts/100 L in the effluent samples (i.e., 600 percent increase in the reservoir). For *Giardia*, the geometric mean concentrations in the inlet and effluent samples were 1.9 and 6.1 cysts/100 L, respectively (i.e., 200 percent increase in reservoir).

Most, if not all, PWSs would treat to achieve 4-log virus inactivation with chlorine. Based on EPA guidance, the dose of chlorine necessary for 4-log virus inactivation would not achieve even 0.5-log *Giardia* inactivation and would produce no inactivation of *Cryptosporidium* (USEPA 1991b). Consequently, PWSs treating for viruses in open reservoirs, as proposed, would provide very little protection against contamination by *Giardia* and *Cryptosporidium*.

Due to the demonstrated potential for contamination by *Giardia* and *Cryptosporidium* in open reservoirs and the ineffectiveness of virus treatment against these pathogens, today's rule requires PWSs to treat for *Giardia* and *Cryptosporidium* in addition to viruses if they do not cover their finished water reservoirs. Specifically, today's rule specifies the same baseline treatment as required for a raw unfiltered source, which is 4-log virus, 3-log *Giardia*, and 2-log *Cryptosporidium* reduction.

EPA believes that requiring treatment for viruses, *Giardia*, and *Cryptosporidium* in uncovered finished water reservoirs is consistent with SDWA section 1412(b)(7)(A), which authorizes the use of a treatment technique to prevent adverse health effects to the extent feasible if

measuring the contaminant is not feasible. Monitoring for these pathogens at the very low levels that would cause public health concern and at the frequency necessary to detect contamination events is not feasible with available analytical methods. EPA has determined that with the availability of technologies like UV, treating for *Giardia*, *Cryptosporidium*, and viruses is feasible for all PWSs.

Today's rule does not allow PWSs to implement a risk mitigation plan as an alternative to covering a reservoir or treating the discharge because EPA does not believe that a risk mitigation plan would provide equivalent public health protection. Consequently, a risk mitigation plan would not meet the statutory provision for a treatment technique to prevent adverse health effects from pathogens like *Giardia* and *Cryptosporidium* to the extent feasible (SDWA section 1412(b)(7)(A)).

As discussed earlier, open reservoirs are subject to contamination from many sources, including runoff, birds, animals, humans, algae, insects, and airborne deposition. Control measures can provide a degree of protection against some of these sources (e.g., bird deterrent wires, security fences with setback distances). All PWSs are significantly constrained, however, in the degree to which they can implement such measures with existing open reservoirs due to factors like the size of the reservoir, the location of the reservoir (e.g., within residential communities or parks), and the existing infrastructure. For example, many open finished water reservoirs are impacted by runoff, despite the fact that this has been prohibited for many years under existing regulations (USEPA 1999e). EPA has concluded that implementing control measures that would be highly effective against all sources of contamination of open reservoirs would not be feasible for PWSs. Accordingly, today's rule does not allow this option.

c. *Definition of uncovered finished water storage facility.* The IESWTR established the following definition for an uncovered finished water storage facility: uncovered finished water storage facility is a tank, reservoir, or other facility used to store water that will undergo no further treatment except residual disinfection and is open to the atmosphere.

In the August 11, 2003, proposed LT2ESWTR, EPA requested comment on whether this definition should be revised. EPA was concerned that it would not include certain cases in which water is stored in an open reservoir after a PWS completes treatment to reduce microbial

pathogens. Such a case would be a PWS that applies a corrosion inhibitor to the effluent of an open reservoir where water is stored after filtration and primary disinfection. In this case, the PWS could claim that the corrosion inhibitor constitutes additional treatment and, consequently, the open reservoir does not meet EPA's definition of an uncovered finished water storage facility. However, the water stored in the open reservoir would be subject to microbial contamination from the sources described in this section and would undergo no further treatment for this contamination.

Today's rule revises the definition of an uncovered finished water storage facility in two ways: (1) The phrase "to reduce microbial pathogens" is inserted following the word "treatment;" and (2) the word "directly" is inserted prior to "open to the atmosphere." The first change ensures that an open reservoir where water is stored after a PWS has completed filtration (where required) and primary disinfection will be appropriately classified as an uncovered finished water storage facility. Whether a PWS applies corrosion control or other treatment to maintain water quality in the distribution system will not affect this determination.

The second change clarifies that covered reservoirs with air vents or overflow lines are not uncovered finished water storage facilities. Such air vents and overflow lines are open to the atmosphere but are usually hooded or screened to prevent contamination of the water. Consequently, these reservoirs are not directly open to the atmosphere and are not subject to the requirements of today's rule for uncovered finished water storage facilities.

### 3. Summary of Major Comments

EPA received significant public comment on requirements for uncovered finished water storage facilities in the August 11, 2003 proposal. Major issues raised by commenters include whether to require all reservoirs to be covered, requiring treatment for *Giardia* and *Cryptosporidium*, support for the proposed options, and revising the definition of an uncovered finished water storage facilities. A summary of these comments and EPA's responses follows.

Several commenters recommended that EPA require all finished water reservoirs to be covered. These commenters stated that making an uncovered reservoir equal in quality to a covered reservoir is not possible—open reservoirs will always be

contaminated by fecal material from birds and small mammals, as well as increased DBPs due to algae and other aquatic organisms, airborne contaminants, and sediment stirred up by wind. Commenters were also concerned that uncovered reservoirs are a major vulnerability for PWS security (i.e., intentional contamination). Some commenters cited the fact that there are hundreds of thousands of covered finished water reservoirs in comparison to approximately 100 uncovered finished water reservoirs as evidence that the public health risks of open reservoirs are widely recognized.

EPA agrees that storing treated water in open reservoirs presents a risk to public health. With today's final rule, EPA expects that many PWSs will cover or eliminate uncovered finished water reservoirs. For reservoirs where covering is not feasible, EPA believes that treating the water for *Giardia*, *Cryptosporidium*, and viruses will provide protection against the range of pathogens likely to contaminate the reservoir.

Many commenters supported requiring treatment for *Giardia* and *Cryptosporidium* for PWSs that treat the reservoir discharge. Commenters stated that reservoirs should either be covered or treated as unfiltered sources (meaning 3-log *Giardia*, 2-log *Cryptosporidium*, and 4-log virus treatment). The LeChevallier et al. (1997) study was cited as demonstrating increases in *Giardia* and *Cryptosporidium* in uncovered finished water reservoirs, and commenters noted that treatment for viruses would not be effective against these protozoa: EPA agrees with these comments and today's rule requires treatment for *Giardia* and *Cryptosporidium*, as well as viruses, by PWSs that do not cover their reservoirs.

Some commenters expressed support for the proposed options, including allowing risk mitigation plans as an adequate remedy for an uncovered reservoir. These commenters characterized the proposal as providing reasonable alternatives to the substantial costs involved in covering reservoirs or providing alternative storage. Commenters stated that strategies included in a risk management plan could address the range of microorganisms for which treatment is necessary, depending on site-specific circumstances.

EPA recognizes that covering or finding alternative storage for uncovered finished water reservoirs can be costly. While EPA believes that covering finished water reservoirs is the most effective approach to protecting public health, today's rule allows PWSs to

provide treatment for *Giardia*, *Cryptosporidium*, and viruses as a feasible alternative. As described earlier, EPA does not believe that providing treatment only for viruses, as proposed, would be protective against the range of pathogens that contaminate open reservoirs. Further, EPA has concluded that implementing a risk mitigation plan that would provide equivalent protection to covering or treating a reservoir is not feasible. This is due to the many potential sources of contamination and the significant limitations that all PWSs have in the control measures they can implement for existing open reservoirs.

Commenters supported revising the definition of uncovered finished water storage facilities to include situations where PWSs apply a treatment like corrosion control to water stored in an open reservoir after the water has undergone filtration, where required, and primary disinfection. In addition, commenters recommended that EPA clarify that "open to the atmosphere" in the definition does not include vents and overflow lines in covered reservoirs. EPA agrees with these comments and today's rule is consistent with them.

### G. Compliance Schedules

#### 1. Today's Rule

This section specifies compliance dates for the monitoring and treatment technique requirements in today's rule. As described in sections IV.A through IV.F of this preamble, today's rule requires PWSs to carry out the following activities:

- Conduct initial source water monitoring on a reported schedule. PWSs may grandfather previously collected monitoring results and may elect to provide the maximum *Cryptosporidium* treatment level of 5.5-log for filtered PWSs or 3.0-log for unfiltered PWSs instead of monitoring.
- Determine a treatment bin classification (or mean *Cryptosporidium* level for unfiltered PWSs) based on monitoring results.
- For filtered PWSs in Bins 2–4 and all unfiltered PWSs, provide additional treatment for *Cryptosporidium* by selecting technologies from the microbial toolbox.
- Report disinfection profiles and benchmarks prior to making a significant change in disinfection practice.
- Report the use of uncovered finished water storage facilities and cover or treat the discharge of such reservoirs on a State-approved schedule.



• Conduct a second round of source water monitoring approximately six years after initial bin classification. Compliance dates for these activities vary by PWS size. Tables IV.G-1 and

IV.G-2 specify source water monitoring and treatment compliance dates for large and small PWSs, respectively. Table IV.G-3 shows compliance dates for PWSs using uncovered finished

water storage facilities. Wholesale PWSs must comply with the requirements of today's rule based on the population of the largest PWS in the combined distribution system.

TABLE IV.G-1.—MONITORING AND TREATMENT COMPLIANCE DATES FOR PWSs SERVING AT LEAST 10,000 PEOPLE

Requirement	Compliance dates by PWS Size		
	PWSs serving at least 100,000 people	PWSs serving at least 50,000 but less than 100,000 people	PWSs serving at least 10,000 but less than 50,000 people
Report sampling schedule and sampling location description for initial source water monitoring for Cryptosporidium (plus E. coli and turbidity at filtered PWSs) <sup>1,2</sup> .	No later than July 1, 2006.	No later than January 1, 2007.	No later than January 1, 2008.
Report notice of intent to grandfather previously collected Cryptosporidium data, if applicable.			
Report intent to provide the maximum Cryptosporidium treatment level in lieu of monitoring, if applicable <sup>1</sup> .			
Begin initial source water monitoring for Cryptosporidium (plus E. coli and turbidity at filtered PWSs) <sup>1,2</sup> .	No later than the month beginning October 1, 2006.	No later than the month beginning April 1, 2007.	No later than the month beginning April 1, 2008.
Submit previously collected Cryptosporidium data and required documentation for grandfathering, if applicable.	No later than December 1, 2006.	No later than June 1, 2007.	No later than June 1, 2008.
Report Cryptosporidium treatment bin classification (or mean Cryptosporidium concentration for unfiltered PWSs) and supporting data for approval.	No later than the month beginning April 1, 2009.	No later than the month beginning October 1, 2009.	No later than the month beginning October 1, 2010.
Report disinfection profiles and benchmarks, if applicable.	Prior to making a significant change in disinfection practice.		
Comply with additional Cryptosporidium treatment requirements based on treatment bin classification (or mean Cryptosporidium concentration for unfiltered PWSs) <sup>3</sup> .	No later than April 1, 2012 <sup>3</sup> .	No later than October 1, 2013 <sup>3</sup> .	No later than October 1, 2012 <sup>3</sup> .
Report sampling schedule and sampling location description for second round of source water monitoring for Cryptosporidium (plus E. coli and turbidity at filtered PWSs) <sup>1</sup> .	No later than January 1, 2015.	No later than July 1, 2015.	No later than July 1, 2016.
Report intent to provide maximum Cryptosporidium treatment level in lieu of monitoring, if applicable <sup>1</sup> .			
Begin second round of source water monitoring for Cryptosporidium (plus E. coli and turbidity at filtered PWSs) <sup>1</sup> .	No later than the month beginning April 1, 2015.	No later than the month beginning October 1, 2015.	No later than the month beginning October 1, 2016.
Report Cryptosporidium treatment bin classification (or mean Cryptosporidium concentration for unfiltered PWSs) and supporting data from second round of monitoring for approval.	No later than the month beginning October 1, 2017.	No later than the month beginning April 1, 2018.	No later than the month beginning April 1, 2019.
Comply with additional Cryptosporidium treatment requirements if bin classification (or mean Cryptosporidium concentration for unfiltered PWSs) changes based on second round of monitoring.	On a schedule the State approves.		

<sup>1</sup> PWS are not required to conduct source water monitoring if they submit a notice of intent to provide the maximum Cryptosporidium treatment level: 5.5-log for filtered PWSs or 3.0-log for unfiltered PWSs.

<sup>2</sup> Not required if PWS grandfathers at least 2 years of Cryptosporidium data.

<sup>3</sup> States may grant up to an additional 2 years for systems making capital improvements.

TABLE IV.G-2.—MONITORING AND TREATMENT COMPLIANCE DATES FOR PWSs SERVING FEWER THAN 10,000 PEOPLE

Requirement	Compliance dates
<b>Indicator (E. coli) Monitoring Requirements for Filtered PWSs Only</b>	
Report sampling schedule and sampling location description for initial source water monitoring for E. coli or alternative State-approved indicator <sup>1,2</sup> .	No later than July 1, 2008.
Report notice intent to grandfather previously collected E. coli data, if applicable.	
Report intent to provide the maximum Cryptosporidium treatment level in lieu of monitoring, if applicable <sup>1</sup> .	
Begin initial source water monitoring for E. coli <sup>1,2</sup> .....	No later than the month beginning October 1, 2008.
Report E. coli data for grandfathering, if applicable .....	No later than December 1, 2008.



TABLE IV.G-2.—MONITORING AND TREATMENT COMPLIANCE DATES FOR PWSs SERVING FEWER THAN 10,000 PEOPLE—Continued

Requirement	Compliance dates	
Report sampling schedule and sampling location description for second round of source water monitoring for <i>E. coli</i> <sup>1</sup> .	No later than July 1, 2017.	
Report intent to provide the maximum <i>Cryptosporidium</i> treatment level in lieu of monitoring, if applicable <sup>1</sup> .		
Begin second round of source water monitoring for <i>E. coli</i> <sup>1</sup> .	No later than the month beginning October 1, 2017.	
Requirement	Compliance dates by monitoring option	
	PWSs monitoring twice-per-month for 1 year	PWSs monitoring monthly for 2 years
<b>Cryptosporidium Monitoring Requirements for Filtered PWSs That Exceed Indicator (<i>E. coli</i>) Trigger Concentration<sup>3</sup> and All Unfiltered PWSs</b>		
Report sampling schedule and sampling location description (if not reported previously) for initial source water monitoring for <i>Cryptosporidium</i> <sup>1,4</sup> .	No later than January 1, 2010.	
Report notice of intent to grandfather previously collected <i>Cryptosporidium</i> data, if applicable.		
Begin initial source water monitoring for <i>Cryptosporidium</i> <sup>1,4</sup> .....	No later than the month beginning April 1, 2010.	
Submit previously collected <i>Cryptosporidium</i> data and required documentation for grandfathering, if applicable.	No later than June 1, 2010.	
Report <i>Cryptosporidium</i> treatment bin classification (or mean <i>Cryptosporidium</i> concentration for unfiltered PWSs) and supporting data for approval.	No later than the month beginning October 1, 2011.	No later than the month beginning October 1, 2012.
Report disinfection profiles and benchmarks, if applicable .....	Prior to making a significant change in disinfection practice.	
Comply with additional <i>Cryptosporidium</i> treatment requirements based on treatment bin classification (or mean <i>Cryptosporidium</i> concentration for unfiltered PWSs) <sup>5</sup> .	No later than October 1, 2014 <sup>5</sup> .	
Report sampling schedule and sampling location description (if not reported previously) for second round of source water <i>Cryptosporidium</i> monitoring <sup>1</sup> .	No later than January 1, 2019.	
Begin second round of source water monitoring for <i>Cryptosporidium</i> <sup>1</sup> .	No later than the month beginning April 1, 2019.	
Report <i>Cryptosporidium</i> treatment bin classification (or mean <i>Cryptosporidium</i> concentration for unfiltered PWSs) and supporting data from second round of monitoring for approval.	No later than the month beginning October 1, 2020.	No later than the month beginning October 1, 2021.
Comply with additional <i>Cryptosporidium</i> treatment requirements if bin classification (or mean <i>Cryptosporidium</i> concentration for unfiltered PWSs) changes based on second round of monitoring.	On a schedule the State approves.	

<sup>1</sup> PWS are not required to conduct source water monitoring if they submit a notice of intent to provide the maximum *Cryptosporidium* treatment level: 5.5-log for filtered PWSs or 3.0-log for unfiltered PWSs.

<sup>2</sup> Not required if PWS grandfathers at least 1 year of *E. coli* data.

<sup>3</sup> Filtered PWSs must conduct *Cryptosporidium* monitoring if the *E. coli* annual mean concentration exceeds 10/100 mL for PWSs using lake or reservoir sources or exceeds 50/100 mL for PWSs using flowing stream sources or a trigger value for an alternative State-approved indicator is exceeded.

<sup>4</sup> Not required if PWS grandfathers at least 1 year of twice-per-month or 2 years of monthly *Cryptosporidium* data.

<sup>5</sup> States may grant up to an additional 2 years for PWSs making capital improvements.

TABLE IV.G-3.—COMPLIANCE DATES FOR PWSs USING UNCOVERED FINISHED WATER STORAGE FACILITIES

Report the use of uncovered finished water storage facilities, if applicable.	No later than April 1, 2008.
Either comply with requirement to cover or treat uncovered finished water storage facilities or comply with State-approved schedule to meet this requirement.	No later than April 1, 2009.

## 2. Background and Analysis

The compliance schedule in today's final rule stems from its risk-targeted approach, wherein PWSs initially conduct monitoring to determine additional treatment requirements. A primary objective of this schedule is to ensure that PWSs provide additional treatment without delay for higher risk sources. This is especially important

with a risk-targeted rule, given the significant time required for initial monitoring. However, the compliance schedule balances this objective with the need to provide PWSs and States with time to prepare for implementation activities.

SDWA section 1412(b)(10) states that a drinking water regulation shall take effect 3 years from the promulgation

date unless the Administrator determines that an earlier date is practicable. Today's rule requires PWSs to begin monitoring prior to 3 years from the promulgation date. Based on EPA's assessment and recommendations of the Advisory Committee, as described in this section, EPA has determined that these monitoring start dates are practicable and appropriate.

In general, PWSs serving at least 10,000 people conduct two years of source water monitoring for Cryptosporidium (as well as *E. coli* and turbidity in filtered PWSs). At the conclusion of this monitoring, these PWSs have six months to analyze monitoring results and report their treatment bin classification to the State for approval. Where required, PWSs must provide the necessary level of additional Cryptosporidium treatment within three years of bin classification, though States may allow an additional two years for PWSs making capital improvements. A second round of source water monitoring must be initiated six years after initial bin classification.

For PWSs serving at least 10,000 people, the timing of monitoring and treatment activities in today's rule partially reflects recommendations by the Stage 2 M-DBP Advisory Committee and the schedule in the August 11, 2003 proposed LT2ESWTR. EPA has modified the proposed compliance schedule to stagger monitoring start dates for PWSs serving 10,000 to 99,999 people. The following discussion addresses these changes from the proposal.

The proposed rule required all PWSs serving at least 10,000 people to begin source water monitoring six months after the rule was established, as recommended by the Advisory Committee. Under today's final rule, PWSs serving at least 100,000 people maintain this schedule. The monitoring start date for PWSs serving 50,000 to 99,999 people is staggered by six months and begins 12 months after the rule is effective. For PWSs serving 10,000 to 49,999, the monitoring start date is staggered by 18 months and begins 24 months after the rule is effective. Dates to comply with additional treatment requirements are staggered accordingly.

This staggering of monitoring start dates for PWSs serving 10,000 to 99,999 people is advantageous in several respects:

- Provides more time for PWSs that have not monitored for Cryptosporidium previously to prepare for monitoring (PWSs serving at least 100,000 people monitored for Cryptosporidium under the ICR). PWSs can use this time to develop budgets, establish contracts with Cryptosporidium laboratories, identify appropriate sampling locations, and learn sampling procedures.

- Provides more time for Cryptosporidium analytical laboratories to build capacity as needed to

accommodate the sample analysis needs of PWSs.

- Spreads out the transactional demand for regulatory oversight. EPA anticipates that the period of greatest transactional demand for States and EPA that oversee monitoring will be when PWSs begin monitoring. The staggered schedule will allow States and EPA to provide more assistance to individual PWSs.

- Eliminates the gap between the end of large PWS monitoring and the start of small PWS monitoring (under the proposed rule schedule, a gap of 18 months existed between the time that large PWSs completed and small PWSs started Cryptosporidium monitoring). Such a gap could create difficulties with maintaining Cryptosporidium sampling and laboratory analysis expertise to support monitoring by small PWSs.

The timing of monitoring and treatment activities in today's rule for PWSs serving fewer than 10,000 people is nearly identical to the schedule in the August 11, 2003 proposed LT2ESWTR and reflects recommendations by the Advisory Committee. The only change is allowing these PWSs the option to spread their Cryptosporidium monitoring over two years in order to facilitate budgeting for this monitoring. However, this change does not affect the treatment compliance dates for these PWSs.

Specifically, filtered PWSs serving fewer than 10,000 people initially conduct one year of source water monitoring for *E. coli* or an alternative indicator if approved by the State, beginning 30 months after the rule is effective. At the conclusion of this monitoring, these PWSs have six months to prepare for Cryptosporidium monitoring, if required based on their indicator monitoring results. Filtered PWSs that exceed the indicator trigger value and all unfiltered PWSs serving fewer than 10,000 people must begin Cryptosporidium monitoring 48 months after the rule is effective. This Cryptosporidium monitoring may consist of sampling twice-per-month for one year or once-per-month for two years. PWSs must report their bin classification to the State for approval within six months of the scheduled completion of Cryptosporidium monitoring.

Regardless of the Cryptosporidium sampling frequency, PWSs serving fewer than 10,000 people must comply with any additional Cryptosporidium treatment requirements within 102 months (8.5 years) after the rule is effective. States may allow an additional two years for PWSs making capital improvements. PWSs must begin a

second round of source water monitoring for *E. coli* or an alternative State-approved indicator within 11.5 years (138 months) after the rule is effective (six years after the bin classification date for PWSs that sampled for Cryptosporidium twice-per-month during initial source water monitoring).

In summary, the compliance schedule for today's rule maintains the earliest compliance dates recommended by the Advisory Committee for PWSs serving at least 100,000 people. These PWSs serve the majority of people that consume water from surface sources. The schedule also maintains the latest compliance dates the Advisory Committee recommended, which apply to PWSs serving fewer than 10,000 people. EPA has staggered compliance schedules for PWSs between these two size categories in order to facilitate implementation of the rule.

### 3. Summary of Major Comments

EPA received significant public comment on the compliance schedule in the August 11, 2003 proposal. Major issues raised by commenters include providing more time for PWSs to prepare for monitoring, giving States more time to oversee monitoring, ensuring that laboratory capacity can accommodate the compliance schedule, and establishing consistent schedules for consecutive PWSs. A summary of these comments and EPA's responses follows.

Commenters were concerned that some PWSs, in particular PWSs serving 10,000 to 50,000 people, would need more than the three months allowed under the proposed rule to report sampling schedules for monitoring. In order to develop sampling schedules, PWSs must establish contracts with laboratories, which may involve using municipal procurement procedures. For smaller PWSs, budgeting for this expense may require substantial time and planning.

EPA recognizes this concern and today's final rule provides significantly more time for many PWSs to submit sampling schedules. Specifically, PWSs serving 50,000 to 99,999 people and those serving 10,000 to 49,999 people must submit sampling schedules 9 and 21 months after the rule is effective, respectively. EPA believes that these PWSs will have sufficient time to develop sampling schedules with these compliance dates. Today's rule still requires PWSs serving at least 100,000 people to submit sampling schedules 3 months after the rule is effective. Because these PWSs have monitored for Cryptosporidium previously, however,

EPA believes that this compliance date is feasible for these PWSs.

Several commenters recommended that States, rather than EPA, oversee monitoring due to States' existing relationships with and knowledge of their PWSs. Commenters were concerned that some States will not participate in early implementation activities and indicated that States would prefer monitoring to begin 24 months after rule promulgation. States need sufficient time to become familiar with the rule, train their staff, prepare primacy packages, and train PWSs.

In general, EPA would prefer that States oversee monitoring by their PWSs and will work with States to facilitate their involvement with rule implementation. Where States are unable to implement today's rule, however, EPA is prepared to oversee implementation. Moreover, EPA believes that the staggered compliance schedule in today's final rule will enhance States' ability to implement the rule.

While EPA does not consider waiting until 24 months after rule promulgation to start monitoring for all PWSs to be appropriate, most PWSs will not begin monitoring until this time or later under today's rule. Among large PWSs (*i.e.*, those serving at least 10,000 people), the majority are in the 10,000 to 49,999 person size category and these PWSs do not begin monitoring until 24 months after rule promulgation. Further, all PWSs serving fewer than 10,000 people do not begin monitoring until 30 months after rule promulgation. These smaller PWSs are likely to need the most assistance from States. By staggering monitoring start dates, today's rule also reduces the number of PWSs that will begin monitoring at any one time, when the most assistance from regulatory agencies will be required.

Many commenters were concerned that the capacity at Cryptosporidium analytical laboratories would not be sufficient for the proposed implementation schedule. Commenters noted that the proposed rule schedule had a break of 18 months between the end of large PWS Cryptosporidium monitoring and the start of small PWS Cryptosporidium monitoring and thought that this break would discourage laboratories from making investments to improve capacity. Other commenters stated that excess laboratory capacity exists and that upon indication that a final rule is imminent, commercial laboratories will hire staff to handle the expected number of samples. Laboratories will, however, need time to train analysts.

EPA recognizes the concern with ensuring that capacity at Cryptosporidium laboratories will be sufficient. Through EPA's laboratory approval program (described in section IV.K), the Agency has evaluated capacity at Cryptosporidium laboratories. Based on information provided by laboratories, EPA believes that current capacity at Cryptosporidium laboratories will be sufficient for the monitoring that PWSs serving at least 100,000 people will begin six months after the rule is effective. EPA expects that commercial laboratories will increase capacity as needed to serve the demand of smaller PWSs that begin monitoring later. Approximately six months are required to train Cryptosporidium analysts. Consequently, the staggered compliance schedule should allow time for laboratories to hire and train staff as necessary. In addition, with the compliance schedule in today's final rule, no break exists between the time that large PWSs end and small PWSs begin Cryptosporidium monitoring. Thus, EPA has eliminated this potential disincentive to laboratories investing in capacity.

However, EPA will continue to monitor laboratory capacity and the ability of PWSs to contract with laboratories to meet their monitoring requirements under the LT2ESWTR. The Agency will assist with implementation of the rule to help maximize the use of available laboratory capacity by PWSs. If evidence emerges during implementation of the rule that PWSs are experiencing problems with insufficient laboratory capacity, the Agency will undertake appropriate action at that time.

In regard to consecutive PWSs (*i.e.*, PWSs that buy and sell treated water), commenters recommended that compliance schedules in the Stage 2 DBPR and LT2ESWTR should be consistent. Some commenters also suggested that where a small PWS sells water to a large PWS, the small PWS should comply on the large PWS schedule. In response, today's final rule requires PWSs that sell treated drinking water to other PWSs to comply according to the schedule that applies to the largest PWS in the combined distribution system. This approach will ensure that PWSs have the same compliance schedule under both the LT2ESWTR and Stage 2 DBPR.

#### H. Public Notice Requirements

##### 1. Today's Rule

Today's rule establishes the following public notice requirements:

- For violations of treatment technique requirements, which today's rule establishes for Cryptosporidium treatment and for covering or treating uncovered finished water reservoirs, PWSs must issue a Tier 2 public notice and must use existing health effects language (except as provided below) for microbiological contaminant treatment technique violations, as stated in 40 CFR 141 Subpart Q, Appendix B.
- For violations of monitoring and testing procedure requirements, including the failure to collect one or two source water Cryptosporidium samples, PWSs must issue a Tier 3 public notice. If the State determines that a PWS has failed to collect three or more Cryptosporidium samples, the PWS must provide a Tier 2 special public notice. Violations for failing to monitor continue until the State determines that the PWS has begun sampling on a revised schedule that includes dates for collection of missed samples. This schedule may also include a revised bin determination date where necessary.
- PWSs must report their bin classification no later than six months after the end of the scheduled monitoring period (specific dates in section IV.G.). Failure by a PWS to collect the required number of Cryptosporidium samples to report its bin classification by the compliance date is a treatment technique violation and the PWS must provide a Tier 2 public notice. The treatment technique violation persists until the State determines that the PWS is implementing a State-approved monitoring plan to allow bin classification or will install the highest level of treatment required under the rule. If the PWS has already provided a Tier 2 special public notice for missing 3 sampling dates and is successfully meeting a State-approved schedule for sampling and bin determination, it need not provide a second Tier 2 notice for missing the bin determination deadline in today's rule.

##### 2. Background and Analysis

In 2000, EPA published the Public Notification Rule (65 FR 25982, May 4, 2000) (USEPA 2000b), which revised the general public notification regulations for PWSs in order to implement the public notification requirements of the 1996 SDWA amendments. This regulation established the requirements that PWSs must follow regarding the form, manner, frequency, and content of a public notice. Public notification of violations is an integral part of the public health protection and consumer right-to-know

provisions of the 1996 SDWA Amendments.

Owners and operators of PWSs are required to notify persons served when they fail to comply with the requirements of a NPDWR, have a variance or exemption from the drinking water regulations, or are facing other situations posing a risk to public health. The public notification requirements divide violations into three categories (Tier 1, Tier 2 and Tier 3) based on the seriousness of the violations, with each tier having different public notification requirements.

EPA has limited its list of violations and situations routinely requiring a Tier 1 notice to those with a significant potential for serious adverse health effects from short term exposure. Tier 1 violations contain language specified by EPA that concisely and in non-technical terms conveys to the public the adverse health effects that may occur as a result of the violation. States and water utilities may add additional information to each notice, as deemed appropriate for specific situations. A State may elevate to Tier 1 other violations and situations with significant potential to have serious adverse health effects from short-term exposure, as determined by the State.

Tier 2 public notices address other violations with potential to have serious adverse health effects on human health. Tier 2 notices are required for the following situations:

- All violations of the MCL, maximum residual disinfectant level (MRDL) and treatment technique requirements, except where a Tier 1 notice is required or where the State determines that a Tier 1 notice is required; and
- Failure to comply with the terms and conditions of any existing variance or exemption. Tier 3 public notices include all other violations and situations requiring public notice, including the following situations:
  - A monitoring or testing procedure violation, except where a Tier 1 or 2 notice is already required or where the State has elevated the notice to Tier 1 or 2; and
  - Operation under a variance or exemption.

The State, at its discretion, may elevate the notice requirement for specific monitoring or testing procedures from a Tier 3 to a Tier 2 notice, taking into account the potential health impacts and persistence of the violation.

As part of the IESWTR, EPA established health effects language for violations of treatment technique requirements for microbiological

contaminants. EPA believes this language, which was developed with consideration of *Cryptosporidium* health effects, is appropriate for violations of some *Cryptosporidium* treatment requirements under the LT2ESWTR. However, for persistent monitoring violations and missing the deadline for bin determination, EPA is promulgating alternative language that better informs consumers of the nature and potential health consequences of the violation.

As described in section IV.C, EPA proposed automatically classifying PWSs in the highest treatment bin (Bin 4) if they fail to complete required monitoring. For today's final rule, EPA has determined that providing more flexibility to States in dealing with PWSs that fail to monitor is appropriate. EPA also believes, however, that responses to monitoring failures must reasonably ensure that PWSs complete monitoring as required to determine a bin classification within the compliance date, or as soon thereafter as possible. Moreover, consistent with the public health protection and consumer right-to-know provisions of the 1996 SDWA Amendments, consumers should be informed of these monitoring failures.

Instead of the proposed automatic Bin 4 classification for monitoring failures under today's rule, PWSs must provide a Tier 3 public notice for monitoring violations including up to two missed *Cryptosporidium* samples. If a PWS misses three or more *Cryptosporidium* samples (other than the specifically exempted situations described in section IV.A.1.c), this persistent violation requires a Tier 2 public notice. This elevated public notice level reflects significant concern that persistent failure to collect required samples will result in the PWS being unable to determine its *Cryptosporidium* treatment bin classification and the corresponding required treatment level by the compliance date.

Further, if a PWS is unable to determine a bin classification by the compliance date due to failure to collect the required number of *Cryptosporidium* samples, this is a treatment technique violation that also requires a Tier 2 public notice, unless the system is already complying with an alternate State-approved schedule for monitoring and bin determination. A PWS that does not determine its bin classification by the required date may not be able to comply with the *Cryptosporidium* treatment technique requirements of today's rule by the required date and provide the appropriate level of public health protection.

### 3. Summary of Major Comments

In the August 11, 2003, proposal, EPA requested comment on whether violations of the treatment requirements for *Cryptosporidium* under the LT2ESWTR should require a Tier 2 public notice and whether the proposed health effects language is appropriate (USEPA 2003a). Most commenters supported requiring a Tier 2 public notice for violations of *Cryptosporidium* treatment requirements under the LT2ESWTR and agreed that no new health effects language is needed for this notification. One commenter stated that a failure to meet *Cryptosporidium* removal requirements under LT2ESWTR should require Tier 1 public notice.

Today's final rule reflects the views of most commenters and is consistent with existing regulations in requiring a Tier 2 public notice for *Cryptosporidium* treatment technique violations. A State may elevate a violation to Tier 1 if the State determines that the violation creates significant potential for serious adverse health effects from short-term exposure.

Another commenter agreed that Tier 2 notice was appropriate but recommended that the LT2ESWTR and any associated guidance be more explicit as to when a treatment technique violation occurs with the use of microbial toolbox options. As described in section IV.D, EPA has stated in today's final rule that failure by a PWS in any month to demonstrate treatment credit with microbial toolbox options equal to or greater than its *Cryptosporidium* treatment requirements is a treatment technique violation. This violation lasts until the PWS demonstrates that it is meeting criteria for sufficient treatment credit to satisfy its *Cryptosporidium* treatment requirements.

#### *I. Reporting Source Water Monitoring Results*

This section presents specific reporting requirements that apply to source water monitoring under today's rule, including EPA's data system for reporting and reviewing monitoring results. For related requirements, see section IV.A for monitoring parameters frequency, section IV.J for required analytical methods, and section IV.K for approved laboratories. General reporting requirements under today's rule and associated compliance dates are shown in section IV.G.

#### 1. Today's Rule

PWSs must report results from the required source water monitoring

described in section IV.A no later than 10 days after the end of the first month following the month when the sample is collected. For *Cryptosporidium* analyses, PWSs must report the data elements specified in Table IV.I-1. For samples in which at least 10 L is filtered

and all of the sample volume is analyzed, only the sample volume filtered and the number of oocysts counted must be reported. Table IV.I-2 presents the data elements that PWSs must report for *E. coli* and turbidity analyses. PWSs, or approved

laboratories acting as the PWSs' agents, must retain results from *Cryptosporidium* and *E. coli* monitoring until 36 months after bin determination for the particular round of monitoring.

TABLE IV.I-1.—CRYPTOSPORIDIUM DATA ELEMENTS TO BE REPORTED

Data element	Reason for data element
Identifying information:	
PWSID .....	Needed to associate plant with public water system.
Facility ID .....	Needed to associate sample result with facility.
Sample collection point .....	Needed to associate sample result with sampling point.
Sample collection date .....	Needed to determine that utilities are collecting samples at the frequency required.
Sample type (field or matrix spike) <sup>1</sup> .....	Needed to distinguish field samples from matrix samples for recovery calculations.
Sample results:	
Sample volume filtered (L), to nearest 1/4 L <sup>2</sup> .....	Needed to verify compliance with sample volume requirements.
Was 100% of filtered volume examined? <sup>3</sup> .....	Needed to calculate the final concentration of oocysts/L and determine if volume analyzed requirements are met.
Number of oocysts counted .....	Needed to calculate the final concentration of oocysts/L.

<sup>1</sup>For matrix spike samples, sample volume spiked and estimated number of oocysts spiked must be reported. These data are not required for field samples.

<sup>2</sup>For samples in which <10 L is filtered or <100% of the sample volume is examined, the number of filters used and the packed pellet volume must also be reported to verify compliance with LT2ESWTR sample volume analysis requirements. These data are not required for most samples.

<sup>3</sup>For samples in which <100% of sample is examined, the volume of resuspended concentrate and volume of this resuspension processed through IMS must be reported to calculate the sample volume examined. These data are not required for most samples.

TABLE IV.I-2.—E. COLI AND TURBIDITY DATA ELEMENTS TO BE REPORTED

Data element	Reason for collecting data element
Identifying Information:	
PWS ID .....	Needed to associate analytical result with public water system.
Facility ID .....	Needed to associate plant with public water system.
Sample collection point .....	Needed to associate sample result with sampling point.
Sample collection date .....	Needed to determine that utilities are collecting samples at the frequency required.
Analytical method number .....	Needed to associate analytical result with analytical method.
Method Type .....	Needed to verify that an approved method was used and call up correct web entry form.
Source water type .....	Needed to assess <i>Cryptosporidium</i> indicator relationships.
<i>E. coli</i> /100 mL .....	Sample result (although not required, the laboratory also will have the option of entering primary measurements for a sample into the LT2ESWTR internet-based database to have the database automatically calculate the sample result).
Turbidity Information:	
Turbidity result .....	Needed to assess <i>Cryptosporidium</i> indicator relationships.

PWSs serving at least 10,000 people must submit sampling schedules (described in section IV.A) and monitoring results for the initial source water monitoring to EPA electronically at the following Internet site: <https://intranet.epa.gov/lt2/>. These PWSs should instruct their laboratories to electronically enter results at this site using web-based manual entry forms or by uploading XML files (extensible markup language files—a standard format that enables information exchange between different systems) from laboratory information management systems (LIMS). After

laboratories enter sample results, PWSs must review the results on-line at this site. The State may approve an alternative approach for reporting source water monitoring schedules and sample results if, for example, a PWS or laboratory does not have the capability to report data electronically.

If a PWS believes that its laboratory entered a sample result into the data system erroneously, the PWS may notify the laboratory to rectify the entry. In addition, if a PWS believes that a result is incorrect, the PWS may electronically mark the result as contested and petition the State to invalidate the

sample. If a PWS contests a sample result, the PWS should submit a rationale to the State, including a supporting statement from the laboratory, providing a justification. PWSs may arrange with laboratories to review their sample results prior to the results being entered into the EPA data system.

PWSs serving fewer than 10,000 people must submit sampling schedules and monitoring results for the initial round of source water monitoring to the State. Further, all PWSs must submit sampling schedules and monitoring results for the second round of



monitoring to the State. Regardless of the reporting process used, PWSs must report an analytical monitoring result to the State no later than 10 days after the end of the first month following the month when the sample was collected.

## 2. Background and Analysis

The reporting requirements for source water monitoring in today's final rule reflect those in the August 11, 2003 proposed LT2ESWTR (USEPA 2003a). The data elements that PWSs must report for *Cryptosporidium* and *E. coli* analyses are the minimum necessary to identify the sample, determine the sample concentration, and verify that the PWS complied with rule requirements like minimum sample volume and approved analytical methods. PWSs or laboratories must keep bench sheets and slide reports for *Cryptosporidium* analyses for three years after bin determination for the particular round of monitoring, at which time PWSs must be in compliance with any additional *Cryptosporidium* treatment requirements based on the monitoring results.

Due to the early implementation schedule, EPA expects to partner with States to implement initial source water monitoring by large PWSs under today's rule. EPA has developed an Internet-based data system to allow electronic reporting and review of source water monitoring results by laboratories, PWSs, States, and EPA. States may use this data system to oversee monitoring by their PWSs. Where States are unable to provide this oversight, the data system will allow EPA to implement today's rule. Accordingly, PWSs serving at least 10,000 people must use this data system to report sampling schedules and sample results for the initial round of source water monitoring unless the State approves an alternative method for reporting.

EPA expects laboratories to report analytical results for *Cryptosporidium*, *E. coli*, and turbidity analyses directly to the data system using web forms and software that are available free of charge. The data system will perform logic checks on data entered and will calculate results from primary data where necessary. This is intended to reduce reporting errors and limit the time involved in investigating, checking, and correcting errors at all levels. The LT2ESWTR proposal describes the analysis functions of the data system in more detail (USEPA 2003a).

In general, EPA expects that States will implement the initial source water monitoring by small PWSs and the second round of monitoring by all

PWSs. Thus, PWSs must submit sampling schedules and monitoring results for this monitoring to the State. Note that where States do not assume primacy for the rule, however, EPA will act as the State.

## 3. Summary of Major Comments

EPA received significant public comment on the following aspects of reporting requirements for source water monitoring in the August 11, 2003 proposed LT2ESWTR: the deadline for reporting sample results, EPA's electronic data system, and reporting results to EPA rather than the State. A summary of these comments and EPA's responses follows.

Some commenters were concerned with requiring PWSs to report sample results no later than the 10th of the second month after the month when the sample is collected. Commenters stated that this will cause most PWSs to sample in the first part of the month, which will exacerbate laboratory capacity problems. As an alternative, commenters recommended that PWSs be required to report sample results 72 days after collection. This approach would give all PWSs the same time period to report sample results regardless of the collection date and would facilitate PWSs and laboratories scheduling sample collection dates more uniformly throughout the month.

In response, EPA believes that requiring PWSs to report monitoring results by the 10th of the second month after sample collection is appropriate. This will maintain consistency with existing drinking water regulations, which typically require monitoring results to be reported by the 10th of the following month. Thus, specifying this reporting date under today's rule will avoid causing PWSs and States to develop different reporting dates for different regulations. Due to the time required for laboratories to analyze *Cryptosporidium* samples, today's rule gives PWSs an extra month to report monitoring results; i.e., the minimum time PWSs have to report results is approximately 40 days (one month plus 10 days). This time frame, however, is greater than what is necessary for laboratories to analyze samples and for PWSs to review results. Consequently, EPA does not believe that PWSs will benefit by collecting a sample at the start of a month in comparison to the end of a month.

Many commenters expressed concern with the readiness of the electronic data system for reporting and reviewing monitoring results under today's rule. Commenters stated that PWSs have experienced significant problems with

data systems that supported earlier rules, such as the Information Collection Rule and the Unregulated Contaminant Monitoring Rule. Commenters recommended that the data system be in place and fully tested prior to finalization of the rule and that EPA provide training for users. If the data system is not available when the rule is finalized, commenters asked that the monitoring be delayed as specified in the Agreement in Principle (USEPA 2000a).

EPA has ensured that the LT2 data system has been fully tested and deployed prior to finalizing the rule. During development of the data system, EPA has involved stakeholders in a joint requirements workgroup, which has made recommendations for data system characteristics and has participated in data system testing. EPA has developed guidance and other training materials for PWSs, States, and laboratories on how to use the data system and will provide technical assistance on an ongoing basis to data system users. EPA believes these steps will help to avoid problems that stakeholders experienced with data systems for earlier rules.

Some commenters expressed concerns about large PWSs reporting monitoring results to EPA. Commenters stated that implementation of the rule should be administered by States, due to the existing relationships States have with the PWSs they regulate. For States that will implement the rule, commenters recommended allowing PWSs to report to States, rather than EPA. Commenters also requested that EPA provide copies of all monitoring data and PWS correspondence to States when they assume primacy.

EPA will work with States to implement today's rule and to help States assume as much responsibility for implementation as they can. Through the LT2ESWTR data system, States will have full access to monitoring results reported by their PWSs. Today's rule also allows States to direct their PWSs to report monitoring results directly to them, rather than EPA. Further, States may require PWSs to submit descriptions of monitoring locations for approval. In general, EPA will seek to involve States in any communications with and decisions for their PWSs and will allow States to take responsibility for these activities if they choose to do so. However, because monitoring for the largest systems begins before States will have had time to assume primacy, EPA must be prepared to oversee monitoring for these PWSs where States are unable to do so.

## J. Analytical Methods

### 1. Analytical Methods Overview

Today's final rule requires public water systems to conduct LT2ESWTR source water monitoring using approved methods for Cryptosporidium, *E. coli*, and turbidity analyses. PWSs must meet the quality control criteria stipulated by the approved methods and additional method-specific requirements, as stated in this section. Related requirements for reporting source water monitoring results and using approved laboratories are discussed in sections IV.I and IV.K, respectively.

EPA has developed guidance for sampling and analyses under the LT2ESWTR. The Source Water Monitoring Guidance Manual for Public Water Systems under the LT2ESWTR provides recommendations on activities like collecting samples and setting up contracts with laboratories. The Microbial Laboratory Manual for the LT2ESWTR provides information for laboratories that conduct analyses. These guidance documents may be requested from EPA's Safe Drinking Water Hotline, which may be contacted as described in the **FOR FURTHER INFORMATION CONTACT** section in the beginning of this notice, and are available on the Internet at [www.epa.gov/safewater/disinfection/lt2](http://www.epa.gov/safewater/disinfection/lt2).

### 2. Cryptosporidium Methods

#### a. Today's Rule

Cryptosporidium analysis for source water monitoring under today's rule must be conducted using either Method 1622: Cryptosporidium in Water by Filtration/IMS/FA (EPA 815-R-05-001, USEPA 2005c) or Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA (EPA 815-R-05-002, USEPA 2005d). Additional method requirements for today's rule include the following:

- For each Cryptosporidium sample, at least a 10-L sample volume must be analyzed unless a PWS meets one of the two exceptions stated in this section. PWSs may collect and analyze greater than a 10-L sample volume.

- The first exception to the sample volume requirement stems from sample turbidity. If a sample is very turbid, it may generate a large packed pellet volume upon centrifugation (a packed pellet refers to the concentrated sample after centrifugation has been performed in EPA Methods 1622 and 1623). Samples resulting in large packed pellets must have the sample concentrate aliquoted into multiple "subsamples" for independent processing through IMS, staining, and

examination. PWSs are not required to analyze more than 2 mL of packed pellet volume per sample.

- The second exception to the sample volume requirement stems from filter clogging. In cases where the filter clogs prior to filtration of 10 L, the PWS must analyze as much sample volume as can be filtered by 2 filters, up to a packed pellet volume of 2 mL. This condition applies only to filters that have been approved by EPA for nationwide use with Methods 1622 and 1623—the Pall Gelman Envirochek™ and Envirochek™ HV filters, the IDEXX Filt-Max™ foam filter, and the Whatman CrypTest™ cartridge filter.

- Methods 1622 and 1623 include fluorescein isothiocyanate (FITC) as the primary antibody stain for Cryptosporidium detection, DAPI staining to detect nuclei, and DIC to detect internal structures. Under today's rule, PWSs must report total Cryptosporidium oocysts as detected by FITC as determined by the color (apple green or alternative stain color approved for the laboratory under the Lab QA Program described in section IV.K), size (4–6 micrometers) and shape (round to oval). This total includes all of the oocysts identified as described here, less any atypical organisms identified by FITC, DIC, or DAPI (e.g., possessing spikes, stalks, appendages, pores, one or two large nuclei filling the cell, red fluorescing chloroplasts, crystals, spores, etc.).

- As required by Method 1622 and 1623, PWSs must have 1 matrix spike (MS) sample analyzed for each 20 source water samples. The volume of the MS sample must be within ten percent of the volume of the unspiked sample that is collected at the same time, and the samples must be collected by splitting the sample stream or collecting the samples sequentially. The MS sample and the associated unspiked sample must be analyzed by the same procedure. MS samples must be spiked and filtered in the laboratory. However, if the volume of the MS sample is greater than 10 L, the PWS is permitted to filter all but 10 L of the MS sample in the field, and ship the filtered sample and the remaining 10 L of source water to the laboratory. In this case, the laboratory must spike the remaining 10 L of water and filter it through the filter that was used to collect the balance of the sample in the field.

- Laboratories must use flow cytometer-counted spiking suspensions for spiked QC samples.

#### b. Background and Analysis

The M-DBP Advisory Committee recommended the use of Methods 1622

or 1623 and a minimum sample volume of 10 L for source water Cryptosporidium analyses under the LT2ESWTR. The August 11, 2003 proposed rule reflected these recommendations, with associated QC requirements and exceptions to the minimum sample volume for samples that are highly turbid or cause significant filter clogging (USEPA 2003a). Today's final rule is unchanged from the proposal in these respects.

Today's rule requires the use of methods 1622 or 1623 because they are the best available methods that have undergone full validation testing. As described in section III.E, these methods were used during the ICRSS, where MS samples indicated a mean recovery and relative standard deviation of 43 and 47 percent, respectively (Connell et al. 2000). EPA expects that PWSs will achieve comparable performance with these methods during source water monitoring under today's rule. With the minimum sample volume and QC requirements in today's rule, this level of performance will be sufficient to assign PWSs to Cryptosporidium treatment bins and realize the public health goals intended by EPA and the Advisory Committee for the LT2ESWTR. EPA has also approved these methods for ambient water monitoring under a separate rulemaking (68 FR 43272, July 21, 2003) (USEPA 2003b).

The proposed LT2ESWTR required the use of April 2001 versions of Methods 1622 or 1623 and requested comment on approving revised versions of these methods in the final rule (USEPA 2003a). The revised methods were included in the proposal as draft June 2003 versions. The revisions in these versions included increased flexibility in some QC requirements, clarification of certain method procedures, an increase in the allowable sample storage temperature to 10°C, the addition of several approved analysis modifications, and other refinements (see the proposed rule for details)(USEPA 2003a).

Today's rule requires the use of the revised versions of Methods 1622 and 1623. In the versions of these methods finalized with today's rule, the upper temperature limit for sample receipt has been increased to 20°C. This change responds to public comment and recent publications (Ware and Schafer 2005, Francy et al. 2004, Nichols et al. 2004). As described in section IV.A, PWSs may grandfather data generated with earlier approved versions of these methods (i.e., 1999 or 2001 versions).

## c. Summary of Major Comments

Public comment on the August 11, 2003 proposed LT2ESWTR supported approval of the revised versions of Methods 1622 and 1623, which today's rule establishes for source water *Cryptosporidium* monitoring. EPA also received comment regarding the lack of viability and infectivity information with these methods and requirements for analyzing QC samples.

Several commenters were concerned that Methods 1622 and 1623 do not indicate whether a *Cryptosporidium* oocyst is viable and infectious. While EPA recognizes that these methods do not provide information on *Cryptosporidium* infectivity, EPA's analysis indicates that they can perform effectively for identifying those PWSs that should provide additional *Cryptosporidium* treatment (USEPA 2005a). This analysis is based on the actual performance of these methods in the ICRSS. Further, EPA and the M-DBP

Advisory Committee, which recommended Methods 1622 and 1623, accounted for this lack of information on infectivity when designing the *Cryptosporidium* treatment bins in today's rule. EPA has not identified any feasible methods for quantifying *Cryptosporidium* infectivity in a national monitoring program.

Several commenters suggested that laboratories should only be required to perform one OPR test per day instead of one for every 20 samples, as Methods 1622 and 1623 require. EPA believes, however, that the frequency of one OPR test per 20 samples is appropriate for identifying and correcting problems. For example, if an OPR test is performed once per day for a laboratory that processes 60 samples per day, a problem that occurs at sample 10 will be continued through the next 50 samples. If an OPR test is performed once per 20 samples, a problem that occurs at sample 10 would only affect 10

additional samples. Consequently, EPA is maintaining the current QC criteria in Methods 1622 and 1623.

3. *E. coli* Methods

## a. Today's Rule

For enumerating source water *E. coli* density under the LT2ESWTR, EPA is approving the same methods that are currently approved for ambient water monitoring under 40 CFR 136.3. EPA established these methods through the rulemaking "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Ambient Water" (USEPA 2003b). Table IV.J-1 summarizes these methods. Method identification numbers are provided for applicable standards published by EPA and voluntary consensus standards bodies including Standard Methods, American Society of Testing Materials (ASTM), and the Association of Analytical Chemists (AOAC).

TABLE IV.J-1.—LIST OF APPROVED ANALYTICAL METHODS FOR *E. COLI*<sup>1</sup>

Method	EPA	Standard Methods 18th, 19th, 20th Ed.	ASTM	AOAC	Other
MPN <sup>2,3,4</sup> , multiple tube .....	.....	9221B.1/9221F <sup>5,6,7</sup> .	.....	.....	.....
Multiple tube/multiple well .....	.....	9223B <sup>5,8</sup> .....	.....	991.15 <sup>9</sup> .....	Colilert <sup>®</sup> 8 <sup>10</sup> , Colilert-18 <sup>®</sup> 8 <sup>10,11</sup> .
MF <sup>2,3,12,13,14</sup> two step, or .....	1103.1 <sup>16</sup> .....	9222B/9222G <sup>5,15</sup> 9213D <sup>5</sup>	D5392-93 <sup>17</sup> .	.....	.....
Single step .....	1603 <sup>18</sup> , 1604 <sup>19</sup> .	.....	.....	.....	mColiBlue 24 <sup>20</sup> .

<sup>1</sup> Recommended for enumeration of *E. coli* in ambient water only, number per 100 ml.

<sup>2</sup> Tests must be conducted to provide organism enumeration (density). Select the appropriate configuration of tubes/filtrations and dilutions/volumes to account for the quality, character, consistency, and anticipated organism density of the water sample.

<sup>3</sup> To assess the comparability of results obtained with individual methods, it is suggested that side-by-side tests be conducted across seasons of the year with the water samples routinely tested in accordance with the most current Standard Methods for the Examination of Water and Wastewater or EPA alternate test procedure (ATP) guidelines.

<sup>4</sup> Samples shall be enumerated by the multiple-tube or multiple-well procedure. Using multiple-tube procedures, employ an appropriate tube and dilution configuration of the sample as needed and report the Most Probable Number (MPN). Samples tested with Colilert<sup>®</sup> may be enumerated with the multiple-well procedures, Quanti-Tray<sup>®</sup>, or Quanti-Tray<sup>®</sup> 2000, and the MPN calculated from the table provided by the manufacturer.

<sup>5</sup> APHA. 1998, 1995, 1992. Standard Methods for the Examination of Water and Wastewater. American Public Health Association. 20th, 19th, and 18th Editions. Amer. Publ. Hlth. Assoc., Washington, DC.

<sup>6</sup> The multiple-tube fermentation test is used in 9221.B.1. Lactose broth may be used in lieu of lauryl tryptose broth (LTB), if at least 25 parallel tests are conducted between this broth and LTB using the water samples normally tested, and this comparison demonstrates that the false-positive rate and false-negative rate for total coliform using lactose broth is less than 10 percent. No requirement exists to run the completed phase on 10 percent of all total coliform-positive tubes on a seasonal basis.

<sup>7</sup> After prior enrichment in a presumptive medium for total coliform using 9221B.1, all presumptive tubes or bottles showing any amount of gas, growth or acidity within 48±3 h of incubation shall be submitted to 9221F. Commercially available EC-MUG media or EC media supplemented in the laboratory with 50 µg/ml of MUG may be used.

<sup>8</sup> These tests are collectively known as defined enzyme substrate tests, where, for example, a substrate is used to detect the enzyme glucuronidase produced by *E. coli*.

<sup>9</sup> AOAC. 1995. Official Methods of Analysis of AOAC International, 16th Edition, Volume 1, Chapter 17. Association of Official Analytical Chemists International. 481 North Frederick Avenue, Suite 500, Gaithersburg, Maryland 20877-2417.

<sup>10</sup> Descriptions of the Colilert<sup>®</sup>, Colilert-18<sup>®</sup>, Quanti-Tray<sup>®</sup> and Quanti-Tray<sup>®</sup> 2000 may be obtained from IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092.

<sup>11</sup> Colilert-18<sup>®</sup> is an optimized formulation of the Colilert<sup>®</sup> for the determination of total coliforms and *E. coli* that provides results within 18 h of incubation at 35 °C rather than the 24 h required for the Colilert<sup>®</sup> test and is recommended for marine samples.

<sup>12</sup> A 0.45 µm membrane filter (MF) or other pore size certified by the manufacturer to fully retain organisms to be cultivated and to be free of extractables which could interfere with their growth.

<sup>13</sup> Because the MF technique usually yields low and variable recovery from chlorinated wastewaters, the Most Probable Number method will be required to resolve any controversies.

<sup>14</sup> When the MF method has not been used previously to test ambient water with high turbidity, large number of noncoliform bacteria, or samples that may contain organisms stressed by chlorine, a parallel test should be conducted with a multiple-tube technique to demonstrate applicability and comparability of results.

<sup>15</sup> Subject total coliform positive samples as determined by 9222B or other membrane filter procedure to 9222G using NA-MUG media.

<sup>16</sup> USEPA. 2002c. Method 1103.1: *Escherichia coli* (*E. coli*) In Water By Membrane Filtration Using membrane-Thermotolerant *Escherichia coli* Agar (mTEC). U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-821-R-02-020.

<sup>17</sup> ASTM. 2000, 1999, 1996. Annual Book of ASTM Standards—Water and Environmental Technology. Section 11.02. American Society for Testing and Materials. 100 Barr Harbor Drive, West Conshohocken, PA 19428.

<sup>18</sup>USEPA. 2002. Method 1610: *Escherichia coli* (*E. coli*) In Water By Membrane Filtration Using Modified membrane-Thermotolerant *Escherichia coli* Agar (modified mTEC). U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-821-R-02-023.

<sup>19</sup>Preparation and use of MI agar with a standard membrane filter procedure is set forth in the article, Brenner et al. 1993. "New Medium for the Simultaneous Detection of Total Coliform and *Escherichia coli* in Water." *Appl. Environ. Microbiol.* 59:3534-3544 and in USEPA. 2002. Method 1604: Total Coliforms and *Escherichia coli* (*E. coli*) in Water by Membrane Filtration by Using a Simultaneous Detection Technique (MI Medium). U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-821-R-02-024.

<sup>20</sup>A description of the mColiBlue24 test, Total Coliforms and *E. coli*, is available from Hach Company, 100 Dayton Ave., Ames, IA 50010.

For most PWSs, the time from sample collection to initiation of analysis (i.e., the holding time) for source water *E. coli* samples may not exceed 30 hours for all approved *E. coli* methods. However, if the State determines on a case-by-case basis that analyzing an *E. coli* sample within 30 hours is not feasible, the State may approve the holding of an *E. coli* sample for up to 48 hours between collection and initiation of analysis. *E. coli* samples held between 30 to 48 hours must be analyzed by the Colilert reagent version of Standard Method 9223B as listed in 40 CFR 136.3. All *E. coli* samples must be maintained below 10° C and not allowed to freeze.

The *E. coli* sample holding time established for source water monitoring under the LT2ESWTR does not apply to *E. coli* sample holding time requirements that have been established under other programs and regulations.

#### b. Background and Analysis

In the August 11, 2003 proposed LT2ESWTR, EPA planned to approve the same *E. coli* methods that the Agency had proposed for ambient water monitoring in an earlier rulemaking, "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Ambient Water" (USEPA 2001h). EPA selected these methods based on data generated by EPA laboratories, submissions to the EPA alternate test procedures program and voluntary consensus standards bodies, peer reviewed journal articles, and publicly available study reports.

On July 21, 2003, EPA finalized "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Ambient Water" (USEPA 2003b). The only method from the proposal of this rule that was not included in the final rule was Colisure, which was excluded due to insufficient data on its performance with surface water. For the other methods, EPA revised certain titles and added method numbers to be consistent with other microbiological methods, but the technical content of these methods in the final rule did not change from the versions included in the proposed rule.

EPA is approving these same *E. coli* methods for analyses under the

LT2ESWTR. The source water *E. coli* analyses that PWSs will conduct under the LT2ESWTR are similar to the ambient water analyses for which EPA approved *E. coli* methods under "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Analytical Methods for Biological Pollutants in Ambient Water" (USEPA 2003b). EPA continues to support the findings of this rule and believes that the *E. coli* methods approved therein have the necessary sensitivity and specificity to meet the data quality objectives of the LT2ESWTR.

An important aspect of monitoring for *E. coli* is the allowable sample holding time (i.e., the time between sample collection and initiation of analysis). Existing regulations, such as 40 CFR 141.74, limit the holding time for *E. coli* samples to 8 hours. However, for PWSs that must ship *E. coli* samples to an off-site laboratory for analysis, meeting an 8 hour holding time is generally not feasible. For example, during the ICRSS, all of the PWSs that shipped samples off-site for *E. coli* analysis exceeded an 8 hour holding time, and 12 percent of these samples had holding times in excess of 30 hours.

While most large PWSs that will monitor for *E. coli* under the LT2ESWTR will conduct these analyses on-site, most small PWSs must ship samples off-site to an approved laboratory. To address the concern that PWSs using off-site laboratories cannot meet an 8-hour holding time, EPA participated in studies to assess the effect of increased sample holding time on *E. coli* analysis results. These studies are summarized in the proposed rule (USEPA 2003a) and are described in detail in Pope et al. (2003). Based on these studies, EPA has concluded that the holding time for *E. coli* samples can be extended beyond 8 hours prior to analysis without compromising the data quality objectives of LT2ESWTR monitoring.

In the proposed LT2ESWTR, EPA required analysis of *E. coli* samples to be initiated within 24 hours of sample collection and required that samples be kept below 10° C and not allowed to freeze (USEPA 2003a). These proposed requirements were based on data showing that most samples maintained within these temperature conditions

were not significantly different at 24 hours than at the standard holding time of 8 hours. The proposal also noted that data indicated no significant sample degradation after longer time periods, such as 30 or 48 hours, for certain methods. Accordingly, EPA requested comment on establishing a longer *E. coli* holding time in the final rule.

For today's final rule, EPA is establishing a holding time of 30 hours for all approved *E. coli* methods. After reviewing public comment on this issue, which is summarized in the following section, and reassessing the studies described in the proposed rule, EPA has concluded that a 30 hour holding time limit for *E. coli* samples is appropriate and consistent with the data quality objectives of LT2ESWTR source water monitoring. Further, EPA believes that meeting a 30 hour holding time is feasible for most PWSs that must ship *E. coli* samples to an off-site laboratory for analysis. This longer holding time, however, does not apply to *E. coli* monitoring conducted under other programs and regulations.

EPA recognizes that in rare cases, having an *E. coli* sample analyzed within 30 hours may not be feasible for a PWS due to distance to an approved laboratory and limited transportation options. In these cases, today's rule allows the State to approve up to a 48 hour holding time for *E. coli* samples. Samples held between 30 to 48 hours must be analyzed by the Colilert reagent version of Standard Method 9223B. This is the only method evaluated in Pope et al. (2003) where no significant sample degradation occurred at 48 hours.

PWSs must maintain samples below 10° C and not allow them to freeze. EPA has developing guidance for PWSs on packing and shipping *E. coli* samples to maintain these temperature conditions. See the overview at the beginning of this section for information on how to access this guidance.

#### c. Summary of Major Comments

In the August 11, 2003 LT2ESWTR proposal, EPA requested comment on whether the *E. coli* methods proposed for approval under the LT2ESWTR are appropriate and whether there are additional methods not proposed that should be considered. EPA also requested comment on the proposal to extend the holding time for *E. coli*



samples to 24 hours; whether EPA should limit the extended holding time to only those *E. coli* analytical methods that were evaluated in the holding time studies described in the proposal; and whether EPA should increase the source water *E. coli* holding time to 30 or 48 hours for samples evaluated by one method, ONPG-MUG, and retain a 24-hour holding time for samples analyzed by other methods.

Most commenters stated that the proposed *E. coli* analytical methods are appropriate. Commenters also agreed with the proposal to extend the holding time for source water *E. coli* samples, but recommendations about the maximum holding time and the methods to which the extended holding time should apply differed among commenters. Some suggested that EPA increase the holding time to 30 hours for the ONPG-MUG method, but retain a 24-hour holding time for the other methods. Other commenters recommended a 48-hour holding time for some or all methods. Several commenters advised that holding times for all methods should be the same to limit confusion. Some commenters were concerned that a 30-hour holding time would not be sufficient for small PWSs in remote areas to ship samples to distant laboratories.

After consideration of the comments received, as well as the holding time study data presented in the proposed rule and the time required to ship samples off-site for analysis as evidenced in the ICRSS, EPA has concluded that allowing a 30-hour holding time for all *E. coli* methods approved under today's final rule is appropriate. Data indicate that a 30-hour holding time for *E. coli* samples will not adversely impact the data quality objectives of LT2ESWTR monitoring. Further, establishing the same holding time for all methods will limit confusion, and a 30-hour holding time will allow most PWSs that ship samples off site for analysis to meet the holding time requirements. Today's rule also allows the State to authorize a 48-hour holding time for rare cases where a 30-hour holding time is not feasible.

#### 4. Turbidity Methods

##### a. Today's Rule

Today's rule requires PWSs to use the analytical methods that have been previously approved by EPA for analysis of turbidity in drinking water, as listed in 40 CFR 141.74. These are Method 2130B as published in Standard Methods for the Examination of Water and Wastewater (APHA 1992), EPA Method 180.1 (USEPA 1993), Great

Lakes Instruments Method 2 (Great Lakes Instruments 1992), and Hach FilterTrak Method 10133.

##### b. Background and Analysis

As stated in section IV.A, today's rule requires filtered PWSs serving at least 10,000 people to monitor for turbidity when they conduct source water monitoring. EPA may use these data to modify the indicator criteria that trigger *Cryptosporidium* monitoring by small filtered PWSs, as recommended by the M-DBP Advisory Committee (USEPA 2000a). In addition, PWSs using conventional or direct filtration may achieve additional *Cryptosporidium* treatment credit by demonstrating very low turbidity in the combined filter effluent, as described in section IV.D.7, or the individual filter effluent, as described in section IV.D.8.

The August 11, 2003 proposed LT2ESWTR required PWSs to use turbidity methods that EPA had previously approved under 40 CFR 141.74 for analyzing drinking water (USEPA 2003a). These are EPA Method 180.1 and Standard Method 2130B, which are based on a comparison of the intensity of light scattered by the sample with the intensity of light scattered by a standard reference suspension; Great Lakes Instruments Method 2, which is a modulated four beam infrared method using a ratiometric algorithm to calculate the turbidity value from the four readings that are produced; and Hach FilterTrak (Method 10133), which is a laser-based method used to analyze finished drinking water.

Today's final rule is unchanged from the proposal in regard to analytical methods for turbidity. Hence, PWSs must use methods currently approved in 40 CFR 141.74 for turbidity analysis. EPA believes the currently approved methods are appropriate for turbidity analyses that will be conducted under the LT2ESWTR. PWSs must use turbidimeter instruments as described in the EPA-approved methods, which may be either on-line or bench top instruments. If a PWS chooses to use on-line instruments for monitoring turbidity, the PWS must validate the continuous measurements for accuracy on a regular basis using a protocol approved by the State, as required in 40 CFR 141.74.

##### c. Summary of Major Comments

EPA received public comment on the turbidity methods required in the August 11, 2003 proposed LT2ESWTR. While commenters, in general, agreed that currently approved turbidity methods are adequate to meet the requirements of the rule, several

commenters were concerned with turbidity measurement variation among different instruments. One commenter suggested voluntary third party testing, while another recommended more rigorous calibration and verification processes.

As described in section IV.D.7, EPA has reviewed studies of low level turbidity measurements, as well as standard test methods for measurement of turbidity below 5 NTU. After reviewing this information, EPA concluded that currently available monitoring equipment can reliably measure turbidity at levels of 0.15 NTU and lower. However, EPA agrees that rigorous calibration and maintenance of turbidity monitoring equipment is necessary for PWSs pursuing the low filtered water turbidity performance options in the microbial toolbox. EPA has developed guidance on proper calibration, operation, and maintenance of turbidimeters (USEPA 1999c).

A few commenters stated that the LT2ESWTR does not recognize advancements in turbidity measurement and newly developed turbidity measurement technologies. In response, EPA has not received information that supports approval of analytical methods for turbidity in addition to those currently approved under 40 CFR 141.74, which are also approved for turbidity monitoring under today's rule. If other turbidity methods are approved and added to 40 CFR 141.74 in the future, these methods will also be approved under the LT2ESWTR.

One commenter requested that the LT2ESWTR specifically address turbidity measurements in plants that practice lime softening. EPA notes that additional treatment credit for combined filter effluent turbidity is based on measurements collected under 40 CFR 141.173 or 40 CFR 141.551 (the IESWTR or LT1ESWTR). These regulations allow PWSs that use lime softening to acidify samples prior to analysis in order to address the effects of lime softening on turbidity measurements. In regard to treatment credit based on individual filter effluent turbidity, EPA does not believe that acidifying samples while measuring turbidity every 15 minutes at each individual filter, as the IESWTR and LT1ESWTR require, is feasible. However, PWSs that practice lime softening could use the demonstration of performance toolbox option to demonstrate that a plant is achieving removal efficiencies equivalent to the additional credit allowed for individual filter performance.



### K. Laboratory Approval

Given the potentially significant implications for PWSs and drinking water consumers of microbial monitoring under the LT2ESWTR, laboratory analyses for *Cryptosporidium*, *E. coli*, and turbidity should be accurate and reliable within the limits of approved methods. Therefore, today's final rule requires PWSs to use laboratories that have been approved to conduct analyses for these parameters by EPA or the State.

#### 1. *Cryptosporidium* Laboratory Approval

##### a. Today's Rule

Analysis of samples for *Cryptosporidium* under today's rule must be conducted by a laboratory that is approved under EPA's Laboratory Quality Assurance Evaluation Program (Lab QA Program) for Analysis of *Cryptosporidium* in Water (described in 67 FR 9731, March 4, 2002, USEPA 2002d). A list of laboratories that are approved under this program is available on the Internet at [www.epa.gov/safewater/disinfection/lt2](http://www.epa.gov/safewater/disinfection/lt2). If a State adopts an equivalent approval process under a State laboratory certification program, then PWSs can use laboratories approved by the State.

##### b. Background and Analysis

Because States do not currently approve laboratories for *Cryptosporidium* analyses, EPA has assumed initial responsibility for *Cryptosporidium* laboratory approval. EPA initiated the *Cryptosporidium* Lab QA Program prior to LT2ESWTR promulgation to ensure that adequate analytical capacity will be available at approved laboratories to support required monitoring, which begins 6 months after rule promulgation. The August 11, 2003 proposed LT2ESWTR required PWSs to have *Cryptosporidium* samples analyzed by laboratories approved under the EPA Lab QA Program. Today's final rule is unchanged from the proposal with respect to this requirement.

Laboratories seeking approval under the EPA Lab QA Program for *Cryptosporidium* analysis must submit an interest application to EPA, successfully analyze a set of initial performance testing samples, and undergo an on-site evaluation. Laboratories that pass the quality assurance evaluation are approved for *Cryptosporidium* analysis under the LT2ESWTR. To maintain approval, laboratories must successfully analyze a set of three ongoing proficiency testing samples approximately every four

months. The Lab QA Program is described in detail in USEPA (2002d) and additional information can be found on the Internet at [www.epa.gov/safewater/disinfection/lt2](http://www.epa.gov/safewater/disinfection/lt2).

EPA tracks the *Cryptosporidium* sample analysis capacity of approved laboratories through the Lab QA Program. Using information provided by laboratories, EPA expects that existing capacity should be sufficient to support initial source water monitoring by large PWSs under the LT2ESWTR. Further, the implementation schedule for today's rule, which is described in section IV.G, provides time for laboratories to increase capacity through steps like training new analysts as the demand for sample analysis grows.

##### c. Summary of Major Comments

In regard to approval of laboratories for *Cryptosporidium* analysis, major comments on the August 11, 2003 proposal addressed the following issues: laboratory capacity, State approval programs, and analyst experience criteria. Comments regarding *Cryptosporidium* laboratory capacity are summarized in section IV.G, while those on the other issues are summarized as follows.

EPA requested comment on States approving *Cryptosporidium* laboratories. Most commenters, however, recommended that EPA maintain the Lab QA Program, due to the specialized nature of the work. EPA intends to maintain the Lab QA Program, but today's rule does allow States to certify *Cryptosporidium* laboratories by setting up an equivalent program.

EPA also requested comment on the experience criteria that Methods 1622 and 1623 include for *Cryptosporidium* analysts. Some commenters recommended lowering analyst training and experience requirements, while others recommended no change or an increase in microscopy training. After evaluating these comments, EPA has concluded that the analyst criteria included in Methods 1622 and 1623 are reasonable for ensuring that analysts have the experience to evaluate source water samples under today's rule. Consequently, EPA has not altered these criteria from the approved methods.

#### 2. *E. coli* Laboratory Approval

##### a. Today's Rule

PWSs must have *E. coli* samples analyzed by a laboratory that has been certified by EPA, the National Environmental Laboratory Accreditation Conference (NELAC) or the State for total coliform or fecal coliform analysis

in drinking water under 40 CFR 141.74. The laboratory must use the same technique for *E. coli* analysis under today's rule that the laboratory is certified to use for drinking water under 40 CFR 141.74 (e.g., membrane filtration, multiple-well, multiple-tube).

##### b. Background and Analysis

The August 11, 2003 proposed LT2ESWTR required PWSs to have *E. coli* samples analyzed by laboratories that are certified to conduct total or fecal coliform analyses in drinking water (i.e., under 40 CFR 141.74) by EPA, NELAC or the State. The proposal required laboratories to use the same *E. coli* analytical technique that they are certified to use for coliform analyses in drinking water. Today's final rule is unchanged from the proposal in regard to these requirements. EPA believes that laboratories that are certified to conduct coliform analyses in drinking water have the expertise to conduct *E. coli* analyses under today's rule, provided they use the analytical technique for which they are certified.

##### c. Summary of Major Comments

Two commenters on the August 11, 2003 proposal suggested that laboratories should be certified specifically for quantitative analyses of total or fecal coliform in a source water matrix. However, the methods approved for source water *E. coli* analyses under today's rule are also approved under the drinking water certification program. EPA believes that analysts certified for these methods under the drinking water certification program have the capability to perform the same methods for a source water matrix, even though additional steps may be required (such as dilutions). EPA has revised the Laboratory Certification Manual to suggest Performance Evaluation (PE) samples for source water matrix analyses and States have the option to require PE samples as needed in their State laboratory certification programs.

#### 3. Turbidity Analyst Approval

##### a. Today's Rule

Under today's rule, measurements of turbidity must be made by a party approved by the State.

##### b. Background and Analysis

The August 11, 2003 proposed LT2ESWTR required that measurements of turbidity be made by a party approved by the State. This reflects existing requirements in 40 CFR 141.74 for measurement of turbidity in drinking water. Today's final rule is unchanged from the proposal in this respect.

### c. Summary of Major Comments

Commenters on requirements for turbidity analyst approval in the August 11, 2003 proposal agreed that turbidity analyses should be consistent with 40 CFR 141.74. Specifically, any person that is currently approved to conduct turbidity analysis under existing drinking water regulations should be approved to conduct turbidity analyses under the LT2ESWTR. EPA agrees with this comment and it is reflected in today's final rule.

#### L. Requirements for Sanitary Surveys Conducted by EPA

##### 1. Today's Rule

Today's final rule establishes requirements for PWSs to respond to significant deficiencies identified in sanitary surveys that EPA conducts. These requirements give EPA authority equivalent to that exercised by States under existing regulations to ensure that PWSs address significant deficiencies.

- For sanitary surveys conducted by EPA under SDWA section 1445 or other authority, PWSs must respond in writing to significant deficiencies outlined in sanitary survey reports no later than 45 days after receipt of the report, indicating how and on what schedule the PWS will address significant deficiencies noted in the survey.

- PWSs must correct significant deficiencies identified in sanitary survey reports according to the schedule approved by EPA, or if there is no approved schedule, according to the schedule the PWS reported if such deficiencies are within the control of the PWS.

- A sanitary survey, as conducted by EPA, is an onsite review of the water source (identifying sources of contamination by using results of source water assessments where available), facilities, equipment, operation, maintenance, and monitoring compliance of a PWS to evaluate the adequacy of the PWS, its sources and operations, and the distribution of safe drinking water. A significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.

##### 2. Background and Analysis

As established by the IESWTR in 40 CFR 142.16(b)(3), primacy States must conduct sanitary surveys for PWSs using surface water sources every three

or five years. The sanitary survey is an onsite review of the following: (1) Source, (2) treatment, (3) distribution system, (4) finished water storage, (5) pumps, pump facilities, and controls, (6) monitoring, reporting, and data verification, (7) system management and operation, and (8) operator compliance with State requirements.

Under the IESWTR, primacy States must have the authority to assure that PWSs respond in writing to significant deficiencies identified in sanitary survey reports no later than 45 days after receipt of the report, indicating how and on what schedule the system will address the deficiency (40 CFR 142.16(b)(1)(ii)). Further, primacy States must have the authority to assure that systems take necessary steps to address significant deficiencies identified in sanitary survey reports if such deficiencies are within the control of the system and its governing body (40 CFR 142.16(b)(1)(iii)).

EPA conducts sanitary surveys under SDWA section 1445 for PWSs not regulated by primacy States (e.g., Tribal systems, Wyoming). However, the authority required of primacy States under 40 CFR 142 to ensure that PWSs address significant deficiencies identified during sanitary surveys does not extend to EPA. Consequently, the sanitary survey requirements established by the IESWTR created an unequal standard. PWSs regulated by primacy States are subject to the States' authority to require correction of significant deficiencies noted in sanitary survey reports, while PWSs for which EPA has direct implementation authority did not have to meet an equivalent requirement.

In the August 11, 2003 proposal, EPA requested comment on establishing requirements under 40 CFR 141 for PWSs to correct significant deficiencies identified in sanitary surveys conducted by EPA. The requirements in today's final rule follow closely on the language presented in the proposal. Today's rule ensures that PWSs in non-primacy States are subject to comparable requirements for sanitary surveys as PWS regulated by States with primacy.

##### 3. Summary of Major Comments

Most public comment on the August 11, 2003 proposal supported requiring PWSs to correct significant deficiencies identified in sanitary surveys conducted by EPA. Commenters stated that requirements for sanitary surveys should be consistent for PWSs and should not depend on the primacy agency. EPA believes the requirements in today's final rule will establish this consistency.

One commenter requested that EPA include a process for PWSs to appeal a significant deficiency determination. EPA expects that PWSs will raise any concerns regarding significant deficiency determinations with the primacy agency, either the State or EPA, that conducts the sanitary survey. States or EPA may withdraw or amend their significant deficiency determinations as appropriate. The IESWTR did not establish a separate appeal process for sanitary surveys conducted by States, and EPA has not established such a process for sanitary surveys conducted by EPA under today's rule.

#### M. Variances and Exemptions

SDWA section 1415 allows States to grant variances from national primary drinking water regulations under certain conditions; section 1416 establishes the conditions under which States may grant exemptions to MCL or treatment technique requirements. These conditions and EPA's view on their applicability to the LT2ESWTR are summarized as follows:

##### 1. Variances

Section 1415 specifies two provisions under which general variances to treatment technique requirements may be granted:

(1) A State that has primacy may grant a variance to a PWS from any requirement to use a specified treatment technique for a contaminant if the PWS demonstrates to the satisfaction of the State that the treatment technique is not necessary to protect public health because of the nature of the PWS's raw water source. EPA may prescribe monitoring and other requirements as conditions of the variance (section 1415(a)(1)(B)).

(2) EPA may grant a variance from any treatment technique requirement upon a showing by any person that an alternative treatment technique not included in such requirement is at least as efficient in lowering the level of the contaminant (section 1415(a)(3)).

EPA does not believe that the first variance provision is applicable to filtered PWSs under today's rule. Filtered PWSs are required to implement additional treatment under the LT2ESWTR only when source water monitoring demonstrates higher levels of *Cryptosporidium* contamination. Thus, this treatment technique requirement accounts for the nature of the PWS's raw water source. Unfiltered PWS treatment requirements also account for the nature of a PWS's raw water source with respect to whether 2- or 3-log *Cryptosporidium* inactivation is required.

In theory, the first variance provision could be applied to the requirement that all unfiltered PWSs provide at least 2-

log *Cryptosporidium* inactivation. If an unfiltered PWS could show a raw water *Cryptosporidium* level 3-log lower than the Bin 1 cutoff for filtered PWSs (i.e., below 0.075 oocysts/1,000 L), this could demonstrate that no treatment for *Cryptosporidium* is necessary. The unfiltered PWS would already be achieving public health protection against *Cryptosporidium* equivalent to filtered PWSs due to the nature of the raw water source.

In practice, EPA has not identified an approach that is economically or technologically feasible for a PWS to demonstrate such a low level of *Cryptosporidium* to support granting a variance. This is due to the extremely large volume and number of samples that would be necessary to make such a demonstration with confidence. However, unfiltered PWSs may choose to pursue the development and implementation of monitoring programs to apply for a variance from *Cryptosporidium* inactivation requirements based on the nature of the raw water source. A sufficient monitoring program may be feasible in site-specific circumstances or with the use of innovative approaches.

The second provision for granting a variance is not applicable to the LT2ESWTR because the rule provides broad flexibility in how PWSs achieve the required level of *Cryptosporidium* reduction through the microbial toolbox. Moreover, the microbial toolbox contains an option for Demonstration of Performance, under which States can award treatment credit based on the demonstrated efficiency of a treatment process in reducing *Cryptosporidium* levels. Thus, there is no need for this type of variance under the LT2ESWTR.

SDWA section 1415(e) describes small PWS variances, but these cannot be granted for a treatment technique for a microbial contaminant. Hence, small PWS variances are not allowed for the LT2ESWTR.

## 2. Exemptions

Under SDWA section 1416(a), a State may exempt any PWS from a treatment technique requirement upon a finding that (1) Due to compelling factors (which may include economic factors such as qualification of the PWS as serving a disadvantaged community), the PWS is unable to comply with the requirement or implement measures to develop an alternative source of water supply; (2) the PWS was in operation on the effective date of the treatment technique requirement, or for a PWS that was not in operation by that date, no reasonable alternative source of

drinking water is available to the new PWS; (3) the exemption will not result in an unreasonable risk to health; and (4) management or restructuring changes (or both) cannot reasonably result in compliance with the Act or improve the quality of drinking water.

EPA believes that granting an exemption to the *Cryptosporidium* treatment requirements of the LT2ESWTR would result in an unreasonable risk to health. As described in section III.C, *Cryptosporidium* causes acute health effects, which may be severe in sensitive subpopulations and include risk of mortality. Moreover, the additional *Cryptosporidium* treatment requirements of the LT2ESWTR are targeted to PWSs with the highest degree of risk. Due to these factors, EPA does not support the granting exemptions from the LT2ESWTR.

## V. State Implementation

### A. Today's Rule

This section describes the regulations and other procedures and policies States must adopt to implement today's rule. States must continue to meet all other conditions of primacy in 40 CFR Part 142. To implement the LT2ESWTR, States must adopt revisions to the following sections:

- § 141.2—Definitions
- Subpart Q—Public Notification
- New Subpart W—Additional treatment technique requirements for *Cryptosporidium*
- § 142.14—Records kept by States
- § 142.15—Reports by States
- § 142.16—Special primacy requirements

#### 1. Special State primacy requirements

To ensure that a State program includes all the elements necessary for an effective and enforceable program under today's rule, a State primacy application must include a description of how the State will perform the following:

- Approve an alternative to the *E. coli* levels that trigger *Cryptosporidium* monitoring by filtered systems serving fewer than 10,000 people (see section IV.A.1);
- Approve watershed control programs for the 0.5 log watershed control program credit in the microbial toolbox (see section IV.D.2);
- Assess significant changes in the watershed and source water as part of the sanitary survey process and determine appropriate follow-up action (see section IV.A); and
- Approve protocols for treatment credit under the Demonstration of Performance toolbox option (see section

IV.D.9), for site specific chlorine dioxide and ozone CT tables (see section IV.D.14), and for alternative UV reactor validation testing (see section IV.D.15).

A State program can be more, but not less, stringent than Federal regulations. As such, some of the elements listed here may not be applicable to a specific State program.

#### 2. State Recordkeeping Requirements

Today's rule requires States to keep additional records of the following, including all supporting information and an explanation of the technical basis for each decision:

- Results of source water *E. coli* and *Cryptosporidium* monitoring for not less than 1 year;
- *Cryptosporidium* treatment bin classification for each filtered PWS after the initial and after the second round of source water monitoring. Also, any change in treatment requirements for filtered systems due to watershed assessment during sanitary surveys;
- Determination of whether each unfiltered PWS has a mean source water *Cryptosporidium* level above 0.01 oocysts/L after the initial and after the second round of source water monitoring;
- The treatment processes or control measures that each PWS employs to meet *Cryptosporidium* treatment requirements under the LT2ESWTR, including measures that systems may use for only part of the year; and
- A list of PWSs required to cover or treat the effluent of an uncovered finished water storage facilities.

#### 3. State Reporting Requirements

Today's rule requires States to report the following information:

- The *Cryptosporidium* treatment bin classification for each filtered PWS after the initial and after the second round of source water monitoring. Also, any change in treatment requirements for filtered systems due to watershed assessment during sanitary surveys; and
- The determination of whether each unfiltered PWS has a mean source water *Cryptosporidium* level above 0.01 oocysts/L after the initial and after the second round of source water monitoring.

#### 4. Interim Primacy

States that have primacy (including interim primacy) for every existing NPDWR already in effect may obtain interim primacy for this rule, beginning on the date that the State submits the application for this rule to USEPA, or the effective date of its revised regulations, whichever is later. A State that wishes to obtain interim primacy

for future NPDWRs must obtain primacy for today's rule. As described in Section IV.A, EPA expects to work with States to oversee the initial source water monitoring that begins six months following rule promulgation.

#### B. Background and Analysis

SDWA establishes requirements that a State or eligible Indian Tribe must meet to assume and maintain primary enforcement responsibility (primacy) for its PWSs. These requirements include the following activities: (1) Adopting drinking water regulations that are no less stringent than Federal drinking water regulations; (2) adopting and implementing adequate procedures for enforcement; (3) keeping records and making reports available on activities that EPA requires by regulation; (4) issuing variances and exemptions (if allowed by the State), under conditions no less stringent than allowed under SDWA; and (5) adopting and being capable of implementing an adequate plan for the provisions of safe drinking water under emergency situations.

40 CFR part 142 sets out the specific program implementation requirements for States to obtain primacy for the public water supply supervision program as authorized under SDWA section 1413. In addition to adopting basic primacy requirements specified in 40 CFR Part 142, States may be required to adopt special primacy provisions pertaining to specific regulations where implementation of the rule involves activities beyond general primacy provisions. States must include these regulation specific provisions in an application for approval of their program revision.

The current regulations in 40 CFR 142.14 require States with primacy to keep various records, including the following: analytical results to determine compliance with MCLs, MRDLs, and treatment technique requirements; PWS inventories; State approvals; enforcement actions; and the issuance of variances and exemptions. Today's final rule requires States to keep additional records, including all supporting information and an explanation of the technical basis for decisions made by the State regarding today's rule requirements. EPA currently requires in 40 CFR 142.15 that States report to EPA information such as violations, variance and exemption status, and enforcement actions, and today's rule adds additional reporting requirements related to monitoring and treatment requirements.

On April 28, 1998, EPA amended its State primacy regulations at 40 CFR 142.12 to incorporate the new process

identified in the 1996 SDWA Amendments for granting primary enforcement authority to States while their applications to modify their primacy programs are under review (63 FR 23362, April 28, 1998) (USEPA 1998c). The new process grants interim primary enforcement authority for a new or revised regulation during the period in which EPA is making a determination with regard to primacy for that new or revised regulation. This interim enforcement authority begins on the date of the primacy application submission or the effective date of the new or revised State regulation, whichever is later, and ends when EPA makes a final determination. However, this interim primacy authority is only available to a State that has primacy (including interim primacy) for every existing NPDWR in effect when the new regulation is promulgated. States that have primacy for every existing NPDWR already in effect may obtain interim primacy for this rule and a State that wishes to obtain interim primacy for future NPDWRs must obtain primacy for this rule.

#### C. Summary of Major Comments

Public comment generally supported the special primacy requirements in the August 11, 2003 proposal, and many commenters expressed appreciation for the flexibility the special primacy requirements provided to States. One commenter expressed concern that a State that adopted this rule by reference would lose the flexibility intended in the proposal. In response, EPA recognizes that some States may be limited by their statutes in applying the flexibility allowed under today's rule. However, EPA believes that providing flexibility for States to approve site-specific approaches that achieve the public health goals of the LT2ESWTR is appropriate and will benefit some States and PWSs.

A few commenters were concerned that the special primacy requirement to assess changes in watersheds as part of the sanitary survey process would be difficult to meet due to a lack of resources or large watersheds that overlap State boundaries. In response, EPA notes that States are required to evaluate PWS sources under the existing sanitary survey requirements (40 CFR 142.16(b)(3)). If a State determines during a sanitary survey that significant changes have occurred in the watershed that could lead to increased contamination of the source by *Cryptosporidium*, today's rule gives the State the authority to require the PWS to take actions to mitigate or treat the contamination. Because the treatment

requirements in today's rule depend on the degree of source water contamination, EPA believes that this assessment of changes in a PWS's source water following initial bin classification is necessary.

EPA also received comments on State approval processes for laboratories analyzing for *Cryptosporidium* to meet LT2ESWTR requirements. Most commenters stated that EPA should maintain a national certification program for laboratories approved for *Cryptosporidium* analysis for LT2ESTWR compliance. Commenters indicated that requiring States to approve laboratories for *Cryptosporidium* analysis placed too great a demand on State resources. Today's rule does not include a State primacy requirement for laboratory certification for *Cryptosporidium* analysis.

Some commenters were concerned with the data tracking and review burden on States from the reporting requirements for the individual toolbox components. EPA agrees with commenters that, in some cases, allowing PWSs to report summaries or to self-certify that the PWS met the performance requirements for microbial toolbox treatment credit may be appropriate. Today's rule allow States to modify the level of reporting required for toolbox components and specifically, permit PWSs to self-certify to the State that a toolbox component has met its performance requirements.

#### VI. Economic Analysis

This section summarizes the economic analysis (EA) for the final LT2ESWTR. The EA is an assessment of the benefits, both health and nonhealth-related, and costs to the regulated community of the final regulation, along with those of regulatory alternatives that the Agency considered. EPA developed the EA to meet the requirement of SDWA section 1412(b)(3)(C) for a Health Risk Reduction and Cost Analysis (HRRCA), as well as the requirements of Executive Order 12866, Regulatory Planning and Review, under which EPA must estimate the costs and benefits of the LT2ESWTR. The full EA is presented in Economic Analysis for the Long Term 2 Enhanced Surface Water Treatment Rule (USEPA 2005a), which includes additional details and discussion on the topics presented throughout this section of the preamble.

The LT2ESWTR is the second in a staged set of rules that address public health risks from microbial contamination of surface and GWUDI drinking water supplies and, more specifically, prevent *Cryptosporidium*



from reaching consumers. As described in section III, EPA promulgated the IESWTR and LT1ESWTR to provide a baseline of protection against Cryptosporidium in large and small PWSs, respectively. Today's final rule will achieve further reductions in Cryptosporidium exposure for PWSs with the highest vulnerability. This EA considers only the incremental reduction in exposure beyond the two previously promulgated rules (IESWTR and LT1ESWTR) from the alternatives evaluated for the LT2ESWTR.

#### A. What Regulatory Alternatives Did the Agency Consider?

Regulatory alternatives considered by the Agency for the LT2ESWTR were developed through the deliberations of the Stage 2 M-DBP Federal Advisory Committee (described in section III). The Advisory Committee considered several general approaches for reducing the risk from Cryptosporidium in drinking water. These approaches included both additional treatment requirements for all PWSs and risk-targeted treatment requirements for PWSs with the highest vulnerability to Cryptosporidium following implementation of the IESWTR and LT1ESWTR. In addition, the Advisory Committee considered related issues such as alternative monitoring strategies.

After considering these general approaches, the Advisory Committee focused on four regulatory alternatives for filtered PWSs (see Table VI.A-1). With the exception of Alternative 1, which requires all PWSs to provide additional treatment for Cryptosporidium, these alternatives incorporate a risk-targeting approach in which PWSs are classified in different treatment bins based on the results of source water monitoring. Additional Cryptosporidium treatment requirements are directly linked to the treatment bin classification. Accordingly, these rule alternatives are differentiated by two criteria: (1) The Cryptosporidium concentrations that define the bin boundaries and (2) the degree of treatment required for each bin.

The Advisory Committee reached consensus regarding additional treatment requirements for unfiltered PWSs without formally identifying regulatory alternatives other than requiring no treatment for Cryptosporidium (i.e., no new regulation).

TABLE VI.A-1.—SUMMARY OF REGULATORY ALTERNATIVES FOR FILTERED PWSs

Mean source water Cryptosporidium monitoring result (oocysts/L)	Additional treatment requirements <sup>1</sup>
<b>Alternative A1</b>	
2.0-log inactivation required for all PWSs	
<b>Alternative A2</b>	
< 0.03 .....	No additional treatment.
≥ 0.03 and < 0.1 .....	0.5-log.
≥ 0.1 and < 1.0 .....	1.5-log.
≥ 1.0 .....	2.5-log.
<b>Alternative A3—Today's Final Rule</b>	
< 0.075 .....	No additional treatment.
≥ 0.075 and < 1.0 .....	1-log.
≥ 1.0 and < 3.0 .....	2-log.
≥ 3.0 .....	2.5-log.
<b>Alternative A4</b>	
< 0.1 .....	No additional treatment.
≥ 0.1 and < 1.0 .....	0.5-log.
≥ 1.0 .....	1.0-log.

<sup>1</sup> Note: "Additional treatment requirements" are in addition to levels already required under existing rules (e.g., the IESWTR and LT1ESWTR) for PWSs using conventional treatment or equivalent.

#### B. What Analyses Support Today's Final Rule?

EPA has quantified benefits and costs for each of the filtered PWS regulatory alternatives in Table VI.A-1 and for unfiltered PWS requirements. Quantified benefits stem from estimated reductions in the incidence of cryptosporidiosis resulting from the regulation. To make these estimates, the Agency employed Monte Carlo modeling to account for uncertainty and variability in key parameters like Cryptosporidium occurrence, infectivity, and treatment efficiency. Costs result largely from the installation of additional treatment, with lesser costs due to monitoring and other implementation activities.

Cryptosporidium occurrence significantly influences the estimated benefits and costs of regulatory alternatives. As discussed in section III.E, EPA analyzed data collected under the ICR, the ICR Supplemental Surveys of medium PWSs (ICRSSM), and the ICR Supplemental Surveys of large PWSs (ICRSSL) to estimate the national occurrence distribution of Cryptosporidium in surface water. EPA evaluated these distributions independently when assessing benefits

and costs for different regulatory alternatives.

Another parameter that significantly influences estimated benefits is Cryptosporidium infectivity (i.e., the likelihood of infection after exposure to a given dose of Cryptosporidium). As discussed in section III.E, EPA considered results from human volunteer feeding studies and applied six different model forms to estimate dose-response relationships.

To address uncertainty in these estimates, benefits are presented for three different dose response models: A "high" estimate based on the model that showed the highest mean baseline risk, a "medium" estimate based on the model and data used at proposal, which is in the middle of the range of estimates produced by the six models, and a "low" estimate, based on the model that showed the lowest mean baseline risk. These estimates are not upper and lower bounds. For each model, a distribution of effects is estimated, and the "high" and "low" estimates show only the means of these distributions for two different model choices.

Both benefits and costs are determined as annualized present values, which allows comparison of cost and benefit streams that are variable over time. The time frame used for both benefit and cost comparisons is 25 years. The Agency uses social discount rates of both 3 percent and 7 percent to calculate present values from the stream of benefits and costs and also to annualize the present value estimates over 25 years (see EPA's Guidelines for Preparing Economic Analyses (USEPA 2000c) for a discussion of social discount rates).

Results of these analyses are summarized in this section of the preamble. Detailed results and descriptions of the supporting analyses are shown in the LT2ESWTR EA (USEPA 2005a).

In evaluating the regulatory alternatives shown in Table VI.A-1, EPA and the Advisory Committee were concerned with the following questions: (1) Do the treatment requirements adequately control Cryptosporidium concentrations in finished water? (2) How many PWSs will be required to add treatment? and (3) What is the likelihood that PWSs will be misclassified in higher or lower treatment bins through monitoring?

Consistent with the consensus recommendation of the Advisory Committee, EPA selected Alternative A3 for today's final rule. EPA has determined that this alternative will significantly reduce the incidence of cryptosporidiosis due to drinking water



in vulnerable PWSs and is feasible for PWSs to implement.

Alternative A1 (across-the-board 2-log inactivation) was not selected because it would impose costs but provide few benefits to PWSs with relatively low Cryptosporidium risk. EPA was also concerned about the feasibility of requiring every surface water treatment plant to install additional treatment processes (e.g., UV) for Cryptosporidium. With Alternative A2,

EPA was concerned with the feasibility of accurately classifying PWSs in treatment bins at a Cryptosporidium concentration of 0.03 oocysts/L. EPA does not believe that Alternative A4 would reduce risks from Cryptosporidium in vulnerable PWSs to the extent feasible, as required under SDWA section 1412(b)(7)(A), because of the low levels of treatment required.

### C. What Are the Benefits of the LT2ESWTR?

EPA has quantified and monetized health benefits for reductions in endemic cryptosporidiosis due to the LT2ESWTR. In addition, today's rule is expected to provide additional health and nonhealth-related benefits that EPA was unable to quantify. Table VI.C-1 summarizes these unquantified benefits.

#### 1. Nonquantified Benefits

TABLE VI.C-1.—SUMMARY OF NONQUANTIFIED BENEFITS

Benefit type	Potential effect on benefits	Comments
Reducing outbreak risks and response costs.	Increase .....	Some human or equipment failures may occur even with the requirements of today's rule; however, by adding barriers of protection for some PWSs, the rule will reduce the possibility of such failures leading to outbreaks.
Reducing averting behavior (e.g., boiling tap water or purchasing bottled water).	Increase/No Change	Consumers in PWSs that cease using uncovered finished water reservoirs (through covering or taking such reservoirs off-line) may have greater confidence in water quality. This may result in less averting behavior that reduces both out-of-pocket costs (e.g., purchase of bottled water) and opportunity costs (e.g., time to boil water).
Improving aesthetic water quality .....	Increase .....	Some technologies installed for this rule (e.g., ozone) are likely to reduce taste and odor problems.
Reducing risk from co-occurring and emerging pathogens.	Increase .....	Although focused on removal of Cryptosporidium from drinking water, PWSs that change treatment processes will also increase removal of pathogens that the rule does not specifically regulate.
Increased source water monitoring .....	Increase .....	The greater understanding of source water quality that results from monitoring may enhance the ability of plants to optimize treatment operations in ways other than those addressed in this rule.
Reduced contamination due to covering or treating finished water storage facilities.	Increase .....	Contaminants introduced through uncovered finished water storage facilities will be reduced, which will produce positive public health benefits.
Change in the levels of disinfection by-products.	Increase/Decrease .....	PWSs that install ozone to comply with the LT2ESWTR may experience an increase in certain DBPs. PWSs that install UV or microfiltration may reduce the use of chlorine and experience a decrease in DBPs.

Source: Chapter 5 of the LT2ESWTR Economic Analysis (USEPA 2005a).

#### 2. Quantified Benefits

In quantifying benefits for the LT2ESWTR based on reductions in the risk of endemic cryptosporidiosis, EPA considered several categories of monetized benefits. First, EPA estimated the number of cases expected to result in premature mortality (primarily for members of sensitive subpopulations such as AIDS patients). The mortality estimate was developed using data from the Milwaukee cryptosporidiosis outbreak of 1993 (described in section III), with adjustments to account for the subsequent decrease in the mortality rate among people with AIDS and for the difference between the portion of people living with AIDS in 1993 in Milwaukee and the current and projected national levels. EPA estimated a mortality rate of 26.3 deaths per 100,000 illnesses for those served by unfiltered PWSs and a mortality rate of 16.7 deaths per 100,000 illnesses for those served by filtered PWSs. These different rates are associated with the incidence of AIDS in populations served

by unfiltered and filtered PWSs. A complete discussion on how EPA derived these rates can be found in subchapter 5.2 of the LT2ESWTR EA (USEPA 2005a).

Reductions in mortalities were monetized using EPA's standard methodology for monetizing mortality risk reduction. This methodology is based on a distribution of value of statistical life (VSL) estimates from 26 labor market and stated preference studies. The mean VSL is \$7.4 million in 2005 with a 5th to 95th percentile range of \$1.2 to \$16.9 million. A more detailed discussion of these studies and the VSL estimate can be found in EPA's Guidelines for Preparing Economic Analyses (USEPA 2000c). A real income growth factor was applied to these estimates of approximately 1.9 percent per year for the 20-year time span following implementation. Income elasticity for VSL was estimated as a triangular distribution that ranged from 0.08 to 1.00, with a mode of 0.40. VSL values for the 20-year span are shown in

the LT2ESWTR EA in Exhibit 5.24 (USEPA 2005a).

The substantial majority of cases are not expected to be fatal and the Agency separately estimated the value of non-fatal illnesses avoided that would result from the LT2ESWTR. For these, EPA first divided projected cases into three categories, mild, moderate, and severe, and then calculated a monetized value per case avoided for each severity level. These were then combined into a weighted average value per case based on the relative frequency of each severity level. According to a study conducted by Corso et al. (2003), the majority of illness fall into the mild category (88 percent). Approximately 11 percent of illness fall into the moderate category, which is defined as those who seek medical treatment but are not hospitalized. The final 1 percent have severe symptoms that result in hospitalization. EPA estimated different medical expenses and time losses for each category.

Benefits for non-fatal cases were calculated using a cost-of-illness (COI)

approach. Traditional COI valuations focus on medical costs and lost wages, and leave out significant categories of benefits, specifically the reduced utility from being sick (i.e., lost personal or non-work time, including activities such as child care, homemaking, community service, time spent with family, recreation, and pain and suffering), although some COI studies also include an estimate for unpaid labor (household production) valued at an estimated wage rate designed to reflect the market value of such labor (e.g., median wage for

household domestic labor). Ideally, a comprehensive willingness to pay (WTP) estimate would be used that includes all categories of loss in a single number. However, a review of the literature indicated that the available studies were not suitable for valuing cryptosporidiosis; hence, estimates from this literature are inappropriate for use in this analysis. Instead, EPA presents two COI estimates: A traditional approach that only includes valuation for medical costs and lost work time (including some portion of unpaid

household production); and an enhanced approach that also factors in valuations for lost unpaid work time for employed people, reduced utility (or sense of well-being) associated with decreased enjoyment of time spent in non-work activities, and lost productivity at work on days when paid workers are ill but go to work anyway.

Table VI.C-2 shows the various categories of loss and how they were valued for each estimate for a "typical" case in 2003 (weighted average based on severity level).

TABLE VI.C-2.—TRADITIONAL AND ENHANCED COI FOR CRYPTOSPORIDIOSIS, 2003\$  
[Weighted average cost per case]

Loss category	Traditional COI	Enhanced COI
Direct Medical Costs .....	\$106.91	106.91
Lost Paid Work Days .....	120.13	120.13
Lost Unpaid Work Days <sup>1</sup> .....	24.32	48.64
Lost Leisure Time <sup>2</sup> .....	not included	217.79
Lost Caregiver Days <sup>3</sup> .....	22.98	61.50
Lost Leisure Productivity <sup>4</sup> .....	not included	162.98
Lost Productivity at Work .....	not included	126.29
Total .....	274.34	844.24

<sup>1</sup> Assigned to 39.7% of the population not engaged in market work; assumes 40 hr. unpaid work week, valued at \$6.23/hr in traditional COI and \$12.46/hr in enhanced COI. Does not include lost unpaid work for employed people and may not include all unpaid work for people outside the paid labor force.

<sup>2</sup> Includes child care and homemaking (to the extent not covered in lost unpaid work days above), time with family, and recreation for people within and outside the paid labor force, on days when subject is too sick to work.

<sup>3</sup> Values lost work or leisure time for people caring for the ill. Traditional approach does not include lost leisure time. Detail may not calculate to totals due to independent rounding; Source: Appendix L in LT2ESWTR EA (USEPA 2005a)

<sup>4</sup> Analogous to lost productivity at work. Includes reduced productivity in unpaid work and reduced enjoyment of recreation on days when subject is sick but engages in unpaid work or leisure activities anyway.

The various loss categories were calculated as follows: Medical costs are a weighted average across the three illness severity levels of actual costs for doctor and emergency room visits, medication, and hospital stays. Lost paid work represents missed work time of paid employees, valued at the median pre-tax wage, plus benefits, of \$20.82 hour. The average number of lost work hours per illness day is 3.4 (this assumes that 60 percent of the population is in the paid labor force and the loss is averaged over 7 days). The weighted average number of lost work days per case is 1.7 days. Medical costs and lost work days reflect market transactions. Medical costs are always included in COI estimates and lost work days are usually included in COI estimates.

In the traditional COI estimate, an equivalent amount of lost unpaid work time was assigned to the 40 percent of the population that are not in the paid labor force. This includes homemakers, students, children, retirees, and unemployed persons. This estimate attempts to capture market-like work (e.g., homemaking, volunteer work) that

is unpaid. EPA did not attempt to calculate what percent of cases falls in each of these five groups, or how many hours per week each group works, but rather assumed an across-the-board 40 hour unpaid work week. For this reason, it likely overstates the value of unpaid, market-like work, but EPA does not have data on this. This time is valued at \$6.23 per hour, which is one half the median post-tax wage (since work performed by these groups is not taxed). This is also approximately the median wage for paid household domestic labor.

In the enhanced COI estimate, an estimate of lost unpaid work days for people outside the paid labor force was made by assigning the value of \$12.46 per hour to the same number of unpaid work hours valued in the traditional COI approach (i.e., 40 unpaid work hours per week). Lost unpaid work for employed people and any unpaid labor beyond 40 hours per week for those not in the labor market is shown as lost leisure time in Table VI.C-2 for the enhanced approach and is not included in the traditional approach.

In the enhanced approach, all time other than paid and market-like work

and sleep (8 hours per work day and 16 hours per non-work day) is valued at the median after tax wage, or \$12.46 per hour. This includes lost unpaid personal work (e.g., chores, errands, housework) and leisure time for people within and outside the paid labor force. The average number of unpaid work hours per illness day is 2.3 (40 hours per week averaged over 7 days  $\times$  40 percent of the population). Implicit in this approach is that people would pay the same amount not to be sick during their leisure time as they require to give up their leisure time to work (i.e., the after tax wage). In reality, people might be willing to pay either more than this amount (if they were very sick and suffering a lot) or less than this amount (if they were not very sick and still got some enjoyment out of activities such as resting, reading, and watching TV), not to be sick. Multiplying 10.3 hours by \$12.46 gives a value of about \$128 for a day of "lost" unpaid personal work and leisure (i.e., lost utility of being sick). The weighted average number of lost leisure days per case is the same as the weighted average number of lost work days (1.7 days per case).

In addition, for days when an individual is well enough to work but is still experiencing symptoms, such as diarrhea, the enhanced estimate also includes a 30 percent loss of work and leisure productivity, based on a study of giardiasis illness (Harrington et al. 1985), which is similar to cryptosporidiosis. Appendix P in the EA describes similar productivity losses for other illnesses such as influenza (35%–73% productivity losses). In the traditional COI analysis, productivity losses are not included for either work or nonwork time. The weighted average number of reduced productivity days per case, for both work and leisure, is 1.3 days.

EPA believes that losses in productivity and lost leisure time are unquestionably present and that these categories have positive value; consequently, the traditional COI estimate understates the true value of these loss categories. EPA notes that these estimates should not be regarded as upper and lower bounds. In particular, the enhanced COI estimate

may not fully incorporate the value of pain and suffering, as people may be willing to pay more than \$228 (the sum of the valuation of lost work and leisure) to avoid a day of illness. The traditional COI estimate may not be a lower bound because it includes a valuation for a lost 40 hour work week for all persons not in the labor force, including children and retirees. This may be an overstatement of lost productivity for these groups, which would depend on the impact of such things as missed school work or volunteer activities that may be affected by illness.

As with the avoided mortality valuation, the real wages used in the COI estimates were increased by a real income growth factor that varies by year, but is the equivalent of about 1.9 percent over the 20 year period. This approach of adjusting for real income growth was recommended by the SAB (USEPA 2000d) because the median real wage is expected to grow each year (by approximately 1.9 percent). Correspondingly, the real income growth factor of the COI estimates

increases by the equivalent of 1.9 percent per year (except for medical costs, which are not directly tied to wages). This approach gives a total COI valuation per case in 2010 of \$306 (undiscounted) for the traditional COI estimate and \$985 (undiscounted) for the enhanced COI estimate; the valuation in 2029 is \$381 (undiscounted) for the traditional COI estimate and \$1,316 (undiscounted) for the enhanced COI estimate. There is no difference in the methodology for calculating the COI over this 20 year period of implementation; the change in valuation is due to the underlying change in projected real wages.

Table VI.C-3 summarizes the annual cases of cryptosporidiosis illness and associated deaths avoided due to the LT2ESWTR proposal. Today's rule, on average, is expected to reduce 89,375 to 1,459,126 illnesses and 20 to 314 deaths annually after full implementation (range based on the ICRSSL, ICRSSM, and ICR data sets and model choice for *Cryptosporidium* infectivity).

Table VI.C-3.—Summary of Annual Avoided Illness and Deaths

Data Set	Annual Illnesses Avoided			Annual Deaths Avoided		
	Low	Medium	High	Low	Medium	High
<b>Total after Full implementation</b>						
ICR	358,732	964,360	1,459,126	76	207	314
ICRSSL	89,375	230,730	372,507	20	52	84
ICRSSM	177,101	455,170	711,123	39	100	156
<b>Annual Average over 25 years</b>						
ICR	264,980	712,732	1,078,796	57	154	232
ICRSSL	66,187	170,977	276,078	15	39	62
ICRSSM	130,918	336,652	438,203	29	74	116

Source: The LT2ESWTR Economic Analysis (USEPA 2005a)

Note: High, medium, and low estimates reflect the mean estimates for a range of dose-response modeling assumptions. See Appendix N of the LT2ESWTR Economic Analysis (USEPA, 2005a).

Tables VI.C-4a and VI.C-4b show the monetized present value of the benefit for reductions in endemic cryptosporidiosis estimated to result from the LT2ESWTR for the enhanced and traditional COI values, respectively. Estimates are given for the ICR, ICRSSL, and ICRSSM occurrence data sets and for the three infectivity models.

With the enhanced COI and a 3 percent discount rate, the annual present value of the mean benefit estimate ranges from \$177 million to \$2.8 billion; at a 7 percent discount rate, the mean estimate ranges from \$144 million to \$2.3 billion. With the traditional COI, the corresponding mean benefit estimate at a 3 percent discount

rate ranges from \$130 million to \$2.0 billion; for a 7 percent discount rate, the mean estimate ranges from \$105 million to \$1.7 billion. None of these values include the unquantified and nonmonetized benefits listed in Table VI.C-1.

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Table VI.C-4a.—Summary of Quantified Benefits—Enhanced COI<sup>1</sup> (\$Millions, 2003\$)

Data Set	Value of Benefits (\$ Millions, 2003\$)		
	Low	Medium	High
Annualized Value (at 3%, 25 Years)			
ICR	\$ 687	\$ 1,853	\$ 2,822
ICRSSL	\$ 177	\$ 458	\$ 744
ICRSSM	\$ 344	\$ 886	\$ 1,393
Annualized Value (at 7%, 25 Years)			
ICR	\$ 556	\$ 1,501	\$ 2,286
ICRSSL	\$ 144	\$ 371	\$ 603
ICRSSM	\$ 279	\$ 718	\$ 1,128

Table VI.C-4b.—Summary of Quantified Benefits—Traditional COI<sup>1</sup> (\$Millions, 2003\$)

Data Set	Value of Benefits (\$ Millions, 2003\$)		
	Low	Medium	High
Annualized Value (at 3%, 25 Years)			
ICR	\$ 497	\$ 1,341	\$ 2,047
ICRSSL	\$ 130	\$ 335	\$ 546
ICRSSM	\$ 250	\$ 644	\$ 1,014
Annualized Value (at 7%, 25 Years)			
ICR	\$ 403	\$ 1,089	\$ 1,662
ICRSSL	\$ 105	\$ 272	\$ 443
ICRSSM	\$ 203	\$ 523	\$ 824

<sup>1</sup>The traditional COI only includes valuation for medical costs and lost work time (including some portion of unpaid household production and other market like work). The enhanced COI also factors in valuations for lost personal time (non-worktime) such as child care and homemaking (to the extent not covered by the traditional COI), time with family, and recreation, and lost productivity in both work and leisure on days when workers are ill but go to work anyway. Source: The LT2ESWTR Economic Analysis (USEPA 2005a)

Note: High, medium, and low estimates reflect the mean estimates for a range of dose-response modeling assumptions. See

Appendix N of the LT2ESWTR Economic Analysis (USEPA, 2005a)

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a. *Filtered PWSs.* Benefits to the approximately 168 million people served by filtered surface water and GWUDI PWSs range from 34,000 to 702,000 reduction in mean annual cases of endemic illness based on three infectivity models and ICRSSL, ICRSSM, and ICR data sets. In addition, premature mortality is expected to be

reduced by an average of 6 to 116 deaths annually.

b. *Unfiltered PWSs.* The 10 million people served by unfiltered surface water or GWUDI PWSs will see a significant reduction in cryptosporidiosis as a result of the LT2ESWTR. In this population, the rule is expected to reduce approximately

55,000 to 758,000 cases of illness and 14 to 197 premature deaths annually.

For unfiltered PWSs, only the ICR data set is used to directly calculate illness reduction because it is the only data set that includes sufficient information on unfiltered PWSs. Illness reduction in unfiltered PWSs was estimated for the ICRSSL and ICRSSM

data sets by multiplying the ICR unfiltered PWS result by the ratio, for the quantity estimated, between filtered PWS results from the supplemental survey data set (SSM or SSL) and filtered PWS results from the ICR.

### 3. Timing of Benefits Accrual (latency)

In previous rulemakings, some commenters have argued that the Agency should consider an assumed time lag or latency period in its benefits calculations. The Agency has not conducted a latency analysis for this rule because cryptosporidiosis is an acute illness; therefore, very little time elapses between exposure, illness, and mortality. However, EPA does account for benefits and costs that occur in future years by converting these to present value estimates.

### *D. What Are the Costs of the LT2ESWTR?*

In order to estimate the costs of today's rule, the Agency considered impacts on PWSs and on States (including territories and EPA implementation in non-primacy States). Summary information on these costs follows, with more detailed information in chapter 6 of the LT2ESWTR EA (USEPA 2005a). A detailed discussion of the requirements of today's rule is located in section IV of this preamble.

#### 1. Total Annualized Present Value Costs

Tables VI.D-1 summarizes the annualized present value cost estimates for the LT2ESWTR at 3 percent and 7 percent discount rates. The mean annualized present value costs of the LT2ESWTR are estimated to range from approximately \$93 to \$133 million using a 3 percent discount rate and \$107

to \$150 million using a 7 percent discount rate. This range in mean cost estimates is associated with the different *Cryptosporidium* occurrence data sets. In addition to mean estimates of costs, the Agency calculated 90 percent confidence bounds by considering the uncertainty in *Cryptosporidium* occurrence estimates and the uncertainty around the mean unit technology costs (USEPA 2005a).

PWSs will incur approximately 99 percent of the rule's total annualized present value costs. States incur the remaining rule costs. Table VI.D-2 shows the undiscounted initial capital and one-time costs broken out by rule component. A comparison of annualized present value costs among the rule alternatives considered by the Agency is located in section VI.F of this preamble.

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Table VI.D-1.- Annualized Present Value Costs for the LT2ESWTR (\$millions, 2003\$)

	ICR			ICRSSL			ICRSSM		
	Confidence Bounds			Confidence Bounds			Confidence Bounds		
	Mean	5th %ile	95th %ile	Mean	5th %ile	95th %ile	Mean	5th %ile	95th %ile
	3%								
National	\$ 133.42	\$ 111.05	\$ 160.00	\$ 92.88	\$ 72.11	\$ 112.17	\$ 105.90	\$ 86.30	\$ 125.74
System Total	\$ 132.27	\$ 109.91	\$ 158.83	\$ 91.78	\$ 71.03	\$ 111.07	\$ 104.79	\$ 85.20	\$ 124.62
State Total	\$ 1.15	\$ 1.14	\$ 1.17	\$ 1.09	\$ 1.08	\$ 1.10	\$ 1.11	\$ 1.10	\$ 1.12
	7%								
National	\$ 150.48	\$ 125.12	\$ 180.61	\$ 106.77	\$ 83.21	\$ 128.83	\$ 120.93	\$ 98.58	\$ 143.61
System Total	\$ 149.07	\$ 123.72	\$ 179.19	\$ 105.42	\$ 81.87	\$ 127.47	\$ 119.56	\$ 97.22	\$ 142.23
State Total	\$ 1.41	\$ 1.39	\$ 1.42	\$ 1.35	\$ 1.34	\$ 1.36	\$ 1.37	\$ 1.36	\$ 1.38

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

Table VI.D.2.--Initial Capital and One-time Costs for the LT2ESWTR (\$millions, 2003\$)

Type of Cost	Serving < 10,000 People			Serving ≥ 10,000 People			All Systems		
	ICR	ICRSSL	ICRSSM	ICR	ICRSSL	ICRSSM	ICR	ICRSSL	ICRSSM
<b>Total</b>									
National (System + State)							\$2,104.32	\$ 1,526.27	\$ 1,719.41
<b>System</b>									
System Total	\$ 214.30	\$ 132.32	\$ 157.93	\$ 1,869.74	\$ 1,373.81	\$ 1,541.30	\$2,084.04	\$ 1,506.13	\$ 1,699.23
Treatment	\$ 140.74	\$ 76.26	\$ 94.75	\$ 1,706.86	\$ 1,208.24	\$ 1,376.73	\$ 1,847.60	\$ 1,284.50	\$ 1,471.48
Implementation	\$ 1.19	\$ 1.19	\$ 1.19	\$ 0.39	\$ 0.39	\$ 0.39	\$ 1.59	\$ 1.59	\$ 1.59
Initial Monitoring	\$ 38.03	\$ 28.27	\$ 32.07	\$ 26.77	\$ 26.77	\$ 26.77	\$ 64.80	\$ 55.04	\$ 58.84
Second Monitoring	\$ 33.47	\$ 26.05	\$ 29.30	\$ 18.01	\$ 20.97	\$ 19.86	\$ 51.48	\$ 47.02	\$ 49.16
Benchmarking	\$ 0.07	\$ 0.04	\$ 0.05	\$ 0.08	\$ 0.06	\$ 0.07	\$ 0.16	\$ 0.10	\$ 0.11
Tech Reporting	\$ 0.65	\$ 0.37	\$ 0.43	\$ 0.74	\$ 0.49	\$ 0.58	\$ 1.39	\$ 0.86	\$ 1.01
Uncovered Reservoirs	\$ 0.14	\$ 0.14	\$ 0.14	\$ 116.88	\$ 116.88	\$ 116.88	\$ 117.03	\$ 117.03	\$ 117.03
<b>State</b>									
State Total							\$ 20.28	\$ 20.15	\$ 20.19
Implementation							\$ 7.77	\$ 7.77	\$ 7.77
Initial Monitoring							\$ 5.98	\$ 5.98	\$ 5.98
Second Monitoring							\$ 6.18	\$ 6.18	\$ 6.18
Benchmarking							\$ 0.09	\$ 0.06	\$ 0.07
Tech Reporting							\$ 0.27	\$ 0.17	\$ 0.19
Uncovered Reservoirs							\$ 0.00	\$ 0.00	\$ 0.00

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

## 2. PWS Costs

Table VI.D-3 shows the number of filtered and unfiltered PWSs that will incur costs by rule provision. All PWSs that treat surface water or GWUDI (*i.e.*,

nonpurchased PWSs) will incur one-time costs that include time for staff training on rule requirements. PWSs will incur monitoring costs to assess source water *Cryptosporidium* levels, though monitoring requirements vary by

PWS size (large vs. small) and PWS type (filtered vs. unfiltered). Some PWSs will incur costs for additional *Cryptosporidium* treatment, where required, and for covering or treating uncovered finished water reservoirs.

**Table VI.D-3.— Number of Filtered and Unfiltered PWSs and Plants Expected to Incur Monitoring and Treatment Costs<sup>1</sup>**

Dataset	Nonpurchased Systems and Plants							Systems with Uncovered Reservoirs
	System Size (population served)	Systems Incurring Implementation Costs	Source Water Monitoring - Plants				Plants Adding Treatment	
			Initial <i>E. Coli</i> Monitoring	Initial <i>Crypto</i> Monitoring	Future <i>E. coli</i> Monitoring	Future <i>Crypto</i> Monitoring		
A	B	C	D	E	F	G		
ICR	< 10,000	5,663	5,575	1,978	4,977	1,732	2,205	12
	≥ 10,000	1,493	1,733	1,762	1,184	1,184	677	69
	Total	7,156	7,308	3,741	6,161	2,916	2,882	81
ICRSSL	< 10,000	Same as ICR		1,285	5,237	1,171	1,428	Same as ICR
	≥ 10,000			1,762	1,379	1,379	440	
	Total			3,047	6,615	2,550	1,868	
ICRSSM	< 10,000	Same as ICR		1,555	5,181	1,409	1,729	Same as ICR
	≥ 10,000			1,762	1,306	1,306	531	
	Total			3,317	6,487	2,715	2,260	

<sup>1</sup>Numbers shown for plants monitoring include nonpurchased plants only. Numbers shown for plants adding treatment include both nonpurchased plants and a fraction of plants purchasing water that could not be linked to their wholesale plant. Source: Chapter 6 of the *LT2ESWTR Economic Analysis* (USEPA 2005a)

a. *Source water monitoring costs.* Source water monitoring costs are structured on a per-plant basis. There are three types of monitoring that plants may be required to conduct—turbidity, *E. coli*, and *Cryptosporidium*. Source water turbidity is a common water quality parameter used for plant operational control. Also, to meet SWTR, LT1ESWTR, and IESWTR requirements, most PWSs have turbidity analytical equipment in-house and operators are experienced with turbidity measurement. Thus, EPA assumes that the incremental turbidity monitoring burden associated with the LT2ESWTR is negligible.

Filtered plants in small PWSs initially will be required to conduct 1 year of biweekly *E. coli* source water

monitoring. These plants will be required to monitor for *Cryptosporidium* if *E. coli* levels exceed 10 *E. coli*/100 mL for lakes and reservoir sources or 50 *E. coli*/100 mL for flowing stream sources. EPA estimated the percent of small plants that would be triggered into *Cryptosporidium* monitoring as being equal to the percent of large plants that would fall into any bin requiring additional treatment.

Estimates of laboratory fees, shipping costs, labor hours for sample collection, and hours for reporting results were used to predict PWS costs for initial source water monitoring under the LT2ESWTR. Table VI.D-4 summarizes the present value of monitoring costs for initial bin classification. Total present value monitoring costs for initial bin

classification range from \$45 million to \$59 million depending on the occurrence data set and discount rate. Appendix D of the LT2ESWTR EA provides a full explanation of how these costs were developed (USEPA 2005a).

b. *Filtered PWSs treatment costs.* The Agency calculated treatment costs by estimating the number of plants that will add treatment technologies and coupling these estimates with unit costs (\$/plant) of the selected technologies. Table VI.D-5 shows the number of plants estimated to select different treatment technologies; Table VI.D-6 summarizes the present value treatment costs and annualized present value costs for both filtered and unfiltered PWSs.

Table VI.D-4.- Summary of Present Value Monitoring Costs for Initial Bin Classification

(\$millions, 2003\$)

System Size	ICR			ICRSSL			ICRSSM		
	Mean	Confidence Bounds		Mean	Confidence Bounds		Mean	Confidence Bounds	
		5th %ile	95th %ile		5th %ile	95th %ile		5th %ile	95th %ile
<b>3 Percent</b>									
< 10,000	\$ 33.79	\$ 32.11	\$ 36.63	\$ 25.24	\$ 22.02	\$ 27.44	\$ 28.57	\$ 26.36	\$ 30.43
> 10,000	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22	\$ 25.22
Total	\$ 59.01	\$ 57.33	\$ 61.86	\$ 50.46	\$ 47.24	\$ 52.66	\$ 53.79	\$ 51.58	\$ 55.66
<b>7 Percent</b>									
< 10,000	\$ 29.05	\$ 27.64	\$ 31.45	\$ 21.85	\$ 19.13	\$ 23.70	\$ 24.65	\$ 22.79	\$ 26.22
> 10,000	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38	\$ 23.38
Total	\$ 52.42	\$ 51.01	\$ 54.82	\$ 45.22	\$ 42.50	\$ 47.07	\$ 48.02	\$ 46.17	\$ 49.60

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

To estimate the number of filtered plants that would select a particular treatment technology, EPA followed a two step process. First, the number of plants that will be assigned to treatment bins requiring additional treatment was estimated. Second, the treatment technologies that plants will choose to meet these requirements was estimated using a "least-cost decision tree." In this estimate, EPA assumed that PWSs will

select the least expensive technology or combination of technologies to meet the log removal requirements of a given treatment bin. Technology selections were constrained by maximum use percentages, which recognize that some plants will not be able to implement certain technologies because of site-specific conditions. In addition, certain potentially lower cost components of the microbial toolbox, such as changes

to the plant intake, were not included because EPA lacked data to estimate the number of plants that could select it. These limitations on technology use may result in an overestimate of costs. An in-depth discussion of the technology selection methodology and unit cost estimates can be found in Appendices E and F of the LT2ESWTR EA (USEPA 2005a).

Table VI.D-5.- Filtered Plant Technology Selection Forecasts

Technology Selections <sup>1</sup>	Data Set <sup>2</sup>			Technology Selections <sup>1</sup>	Data Set <sup>2</sup>		
	ICR	ICRSSL	ICRSSM		ICR	ICRSSL	ICRSSM
Bag Filter				Ozone			
1.0 Log	1,523	1,219	1,421	0.5 Log	27	21	25
Cartridge Filter				Ozone			
2.0 Log	209	20	58	1.0 Log	18	14	16
Combined Filter				Ozone			
Performance				2.0 Log	10	3	4
0.5 Log	16	12	14	Secondary Filter			
In-bank Filtration				1.0 Log	0	0	0
1.0 Log	6	5	6	UV			
MF/UF				2.5 Log	979	503	641
2.5 Log	37	13	18	WS Control			
				0.5 Log	0	0	0

<sup>1</sup>Some plants are projected to select more than one technology to meet LT2ESWTR bin requirements.<sup>2</sup>Forecasts represent the median occurrence distribution.

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

c. *Unfiltered PWSs treatment costs.* The LT2ESWTR requires all unfiltered PWSs to achieve 2-log of inactivation if their mean source water Cryptosporidium concentration is less than or equal to 0.01 oocysts/L and 3-

log of inactivation if it is greater than 0.01 oocysts/L. For most PWSs, UV appears to be the least expensive technology that can achieve these levels of Cryptosporidium inactivation, and EPA expects UV to be widely used by

unfiltered PWSs to meet today's rule requirements. However, as with filtered PWSs, EPA estimated that a small percentage of plants would elect to install a technology more expensive than UV due to the configuration of

existing equipment or other factors. Ozone is the next least expensive technology that will meet the inactivation requirements for some PWSs and EPA estimated that it will be used by plants that do not use UV.

All unfiltered PWSs must meet requirements of the LT2ESWTR; therefore, 100 percent of unfiltered PWSs are estimated to add technology. This assumes that no unfiltered PWSs currently use these additional treatment technologies. For this cost analysis, EPA

assumed that all very small unfiltered PWSs will use UV; for all other unfiltered PWS sizes, EPA estimated that 90 percent will install UV and 10 percent will add ozone. Treatment costs for unfiltered PWSs are included in Table VI.D-6.

**Table VI.D-6.—Total Present Value and Annualized Present Value Treatment Costs for Filtered and Unfiltered Plants**

Dataset	Capital - Present Value			O & M - Annualized			Total - Annualized		
	Mean	5th %ile	95th %ile	Mean	5th %ile	95th %ile	Mean	5th %ile	95th %ile
	A	B	C	D	E	F	G	H	I
3 percent									
ICR	\$ 1,426.5	\$ 1,128.4	\$ 1,780.9	\$ 33.7	\$ 28.7	\$ 39.6	\$ 115.6	\$ 93.5	\$ 141.9
ICRSSL	\$ 998.5	\$ 723.2	\$ 1,263.1	\$ 18.8	\$ 14.2	\$ 22.6	\$ 76.1	\$ 55.7	\$ 95.2
ICRSSM	\$ 1,141.0	\$ 875.4	\$ 1,413.9	\$ 23.2	\$ 19.1	\$ 27.2	\$ 88.8	\$ 69.4	\$ 108.4
7 percent									
ICR	\$ 1,157.1	\$ 915.3	\$ 1,444.3	\$ 29.4	\$ 25.0	\$ 34.6	\$ 128.7	\$ 103.6	\$ 158.5
ICRSSL	\$ 812.2	\$ 588.7	\$ 1,027.0	\$ 16.4	\$ 12.4	\$ 19.7	\$ 86.1	\$ 62.9	\$ 107.9
ICRSSM	\$ 927.1	\$ 711.5	\$ 1,148.7	\$ 20.3	\$ 16.7	\$ 23.7	\$ 99.8	\$ 77.7	\$ 122.3

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

d. *Uncovered finished water storage facilities.* As part of the LT2ESWTR, PWSs with uncovered finished water storage facilities must either cover the storage facility or treat the discharge to achieve inactivation and/or removal of at least 2-log *Cryptosporidium*, 3-log *Giardia lamblia*, and 4-log viruses. To develop national cost estimates for PWSs to comply with these provisions, unit costs for each compliance alternative and the percentage of PWSs selecting each alternative were estimated for the inventory of uncovered finished water storage facilities. From a recent survey of EPA Regions, EPA estimates that there are currently 81 uncovered finished water storage facilities for which PWSs must take steps to comply with the

LT2ESWTR. A full description of the unit costs and other assumptions used in this analysis is presented in Chapter 6 and Appendix I of the LT2ESWTR EA (USEPA 2005a).

To comply with the treatment requirements, EPA determined that the least-cost treatment option is a combination of chlorine and UV. For PWSs with uncovered storage facility capacities of 5 million gallons (MG) or less, covering the storage facilities is the least expensive alternative. Although disinfection is the least expensive alternative for the remaining PWSs, the ability of a PWS to use booster chlorination depends on their current residual disinfectant type. Somewhat less than half of all surface water PWSs are predicted to use chloramination following implementation of the Stage 2

DBPR. Adding chlorine to water that has been treated with chloramines is not a feasible alternative; therefore, the fraction of PWSs projected to add UV and booster chlorination to the effluent from the uncovered storage facility was estimated at 50 percent, with the remaining 50 percent projected to add covers.

Table VI.D-7 summarizes total annualized present value costs for the uncovered finished water storage facility requirements using both 3 and 7 percent discount rates. EPA estimates the total annualized present value cost for covering or treating the water from uncovered finished water storage facilities to be approximately \$10 million at a 3 percent discount rate and \$13 million at a 7 percent discount rate.



**Table VI.D-7.— Estimated Annualized Present Value Cost for Uncovered Finished Water Storage Facility Provision (\$millions, 2003\$)**

System Size (Population Served)	Annualized Cost at 3%			Annualized Cost at 7%		
	Capital	O&M	Total	Capital	O&M	Total
<10,000	\$ 0.01	\$ 0.00	\$ 0.01	\$ 0.01	\$ 0.00	\$ 0.02
≥10,000	\$ 6.52	\$ 3.73	\$ 10.24	\$ 9.39	\$ 3.68	\$ 13.07
Total	\$ 6.53	\$ 3.73	\$ 10.26	\$ 9.40	\$ 3.68	\$ 13.08

Source: Appendix II of the *LT2ESWTR Economic Analysis* (USEPA 2005a)

e. *Future monitoring costs.* Six years after initial bin classification, filtered and unfiltered PWSs must conduct a second round of monitoring to assess whether source water *Cryptosporidium* levels have changed significantly. EPA will evaluate new analytical methods and surrogate indicators of microbial water quality in the interim. While the costs of monitoring are likely to change in the 9 years following rule promulgation, it is difficult to predict how they will change. In the absence of any other information, EPA assumed that the laboratory costs will be the same as for the initial monitoring.

All PWSs that conducted initial monitoring were assumed to conduct the second round of monitoring, except for those PWSs that installed treatment that achieves a total of 5.5-log or greater treatment for *Cryptosporidium* as a result of the rule. These PWSs are exempt from monitoring under the LT2ESWTR. EPA estimates that the cost of the second round of source water monitoring will range from \$21 million to \$36 million, depending on the occurrence data set and discount rate used in the estimate. Appendix D of the EA provides further details (USEPA 2005a).

f. *Sensitivity analysis-influent bromide levels on technology selection for filtered plants.* One concern with the ICR data set is that it may not reflect influent bromide levels in some PWSs during droughts. High influent bromide levels (the precursor for bromate formation) limits ozone use because some PWSs would not be able to meet the MCL for bromate. EPA conducted a sensitivity analysis to estimate the impact that higher influent bromide levels would have on technology decisions. The sensitivity analysis assumed influent bromide concentrations of 50 parts per billion

(ppb) above the ICR concentrations. Results of the analysis indicate that this higher bromide level has a minimal impact on costs.

### 3. State/Primacy Agency Costs

EPA estimates that States (including primacy agencies) will incur an annualized present value cost of \$1.1 to 1.2 million using a 3 percent discount rate and \$1.4 million at 7 percent. State implementation activities include regulation adoption, program implementation, training State staff, training PWS staff, providing technical assistance to PWSs, and updating management systems. To estimate implementation costs to States, the number of full-time employees (FTEs) per activity is multiplied by the number of labor hours per FTE, the cost per labor hour, and the number of States and Territories.

In addition to implementation costs, States will also incur costs associated with managing monitoring data. Because EPA will directly manage reporting, approval, and analysis of results from the initial round of monitoring by large PWSs (serving at least 10,000 people), States are not predicted to incur costs for these activities. States will, however, incur costs associated with small PWS monitoring. This is a result of the later start of small PWS monitoring, which will mean that some States will assume primacy for small PWS monitoring. In addition, States will review the second round of monitoring results. States will also incur costs for reviewing technology compliance data and consulting with PWSs regarding disinfection benchmarking (for PWSs that change their disinfection procedures to comply with today's rule). Appendix D of the LT2ESWTR EA provides more information about the State cost analysis (USEPA 2005a).

### 4. Non-Quantified Costs

EPA has quantified all the major costs for this rule and has provided uncertainty analyses to bound the over or underestimates in the costs. There are some costs that EPA has not quantified, however, because of lack of data. For example, some PWSs may merge with neighboring PWSs to comply with this rule. Such changes have both costs (legal fees and connecting infrastructure) and benefits (economies of scale). Likewise, PWSs would incur costs for procuring a new source of water that may result in lower overall treatment costs.

In addition, the Agency was unable to predict the usage or estimate the costs of several options in the microbial toolbox. These options include intake management and demonstrations of performance. They have not been included in the quantified analysis because data are not available to estimate the number of PWSs that may use these toolbox options to comply with the LT2ESWTR. Not including these generally lower-cost options may result in overestimation of costs.

### E. What Are the Household Costs of the LT2ESWTR?

Another way to assess a rule's impact is to consider how it may impact residential water bills. This analysis considers the potential increase in a household's water bill if a CWS passed the entire cost increase resulting from this rule on to its customers. This serves as a tool to gauge potential impacts and should not be construed as precise estimates of potential changes to individual water bills.

Included in this analysis are all PWS costs, including rule implementation, initial and future monitoring for bin classification, additional *Cryptosporidium* treatment, and treating

or covering uncovered finished water storage facilities. Costs for Cryptosporidium monitoring by small PWSs, additional Cryptosporidium treatment, and uncovered finished water storage facilities are assigned only to the subset of PWSs expected to incur them. Although implementation and monitoring represent relatively small, one-time costs, they have been included in the analysis to provide a complete distribution of the potential household cost. A detailed description of the derivation of household costs is in Chapter 6 and Appendix J of the LT2ESTWR EA (USEPA 2005a).

For PWSs that purchase treated water (i.e., purchased PWSs) from larger nonpurchased PWSs, the households costs are calculated based on the unit treatment costs of the larger PWS but included in the distribution for the size category of the purchased PWS. Households costs for these purchased

PWSs are based on the household usage rates appropriate for the retail PWS and not the PWS selling (wholesaling) the water. This approach for purchased PWSs reflects the fact that although they will not face increased costs from adding their own treatment, whatever costs the wholesale PWS incurs will likely be passed on as higher water costs.

Table VI.E-1 shows the results of the household cost analysis. In addition to mean and median estimates, EPA calculated the 90th and the 95th percentiles. EPA estimates that all households served by surface and GWUDI sources will face some increase in household costs due to implementation of the LT2ESWTR. Of all the households subject to the rule, from 22 to 41 percent are projected to incur costs for adding treatment, depending on the Cryptosporidium occurrence data set used.

Approximately 92 percent of the households potentially subject to the rule are served by PWSs serving at least 10,000 people and 99.8 percent are served by PWSs serving at least 500 people; these PWSs experience the lowest increases in costs due to significant economies of scale. Over 95 percent of all households are estimated to face an annual cost increase of less than \$12. Households served by small PWSs that install advanced technologies will face the greatest increases in annual costs. EPA expects that the model's projections for these PWSs are, in some cases, overstated. Some PWSs are likely to find alternative treatment techniques such as other toolbox options not included in this analysis, or sources of water (ground water, purchased water, or consolidating with another PWS) that would be less costly than installing more expensive treatment technologies.

**Table VI.E-1.— Potential Annual Household Costs Impacts for the Preferred Regulatory Option (2003\$)**

System Type/Size	Households	Mean	Median	90th Percentile	95th Percentile	Percent of Systems with Household Cost Increase < \$12	Percent of Systems with Household Cost Increase < \$120
<b>ICR</b>							
All CWS	68,857,992	\$2.59	\$0.21	\$6.43	\$9.97	96.49%	99.99%
CWS ≤ 10,000	5,587,602	\$4.14	\$0.56	\$9.97	\$14.79	91.19%	99.88%
CWS < 500	158,900	\$13.09	\$3.86	\$28.66	\$53.60	63.20%	98.87%
<b>ICRSSL</b>							
All CWS	68,857,992	\$1.67	\$0.09	\$6.37	\$6.42	97.96%	100.00%
CWS ≤ 10,000	5,587,602	\$2.49	\$0.36	\$6.60	\$9.37	96.46%	99.94%
CWS < 500	158,900	\$8.58	\$2.91	\$17.44	\$29.01	72.61%	99.50%
<b>ICRSSM</b>							
All CWS	68,857,992	\$1.97	\$0.09	\$6.37	\$6.85	97.47%	99.99%
CWS ≤ 10,000	5,587,602	\$3.00	\$0.49	\$7.02	\$11.39	95.19%	99.93%
CWS < 500	158,900	\$10.10	\$2.90	\$26.24	\$35.97	68.73%	99.31%
<b>ICR - High</b>							
All CWS	68,857,992	\$2.84	\$0.21	\$6.43	\$9.97	96.09%	99.99%
CWS ≤ 10,000	5,587,602	\$4.58	\$0.61	\$11.50	\$15.30	90.22%	99.86%
CWS < 500	158,900	\$7.21	\$2.91	\$16.81	\$26.25	75.79%	99.80%
<b>ICRSSL - Low</b>							
All CWS	68,857,992	\$1.42	\$0.03	\$5.65	\$6.42	98.37%	100.00%
CWS ≤ 10,000	5,587,602	\$2.06	\$0.23	\$6.58	\$7.47	97.21%	99.96%
CWS < 500	158,900	\$14.42	\$4.79	\$30.00	\$54.42	62.07%	98.58%

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2005a)

*F. What Are the Incremental Costs and Benefits of the LT2ESWTR?*

Incremental costs and benefits are those that are incurred or realized in reducing *Cryptosporidium* exposures from one regulatory alternative to the next. Estimates of incremental costs and benefits are useful in considering the economic efficiency of different regulatory alternatives evaluated by EPA. Generally, the goal of an incremental analysis is to identify the most efficient regulatory alternative. However, this analysis is incomplete because some benefits from this rule are unquantified and not monetized. Incremental analyses should consider both quantified and unquantified (where possible) benefits and costs.

Usually an incremental analysis implies increasing levels of stringency along a single parameter, with each alternative providing all the protection

of the previous alternative, plus additional protection. However, the regulatory alternatives evaluated for the LT2ESWTR vary by multiple parameters (e.g., treatment bin boundaries, treatment requirements). The comparison between any two alternatives is, therefore, between two separate sets of benefits, in the sense that they may be distributed to somewhat different population groups.

The regulatory alternatives, however, do achieve increasing levels of benefits at increasing levels of costs. As a result, displaying incremental net benefits from the baseline and alternative to alternative is possible. Tables VI.F-1a and VI.F-1b show incremental costs, benefits, and net benefits for the four regulatory alternatives, A1-A4, shown in Table VI.A-1, using the enhanced and traditional COI, respectively. All values are annualized present values

expressed in Year 2003 dollars. The displayed values are the mean estimates for each occurrence distribution and infectivity model.

With the enhanced COI, incremental costs are generally closest to incremental benefits for A2, a more stringent alternative than A3, which is today's final rule. For the traditional COI, incremental costs most closely equal incremental benefits for A3 under the majority of conditions evaluated.

*G. Are There Benefits From the Reduction of Co-Occurring Contaminants?*

While the quantified and monetized benefits for the LT2ESWTR includes only reductions in illness and mortality attributable to *Cryptosporidium*, today's rule will reduce exposure to and disease from other microbial pathogens and, in some cases, chemical contaminants.

Table VI.F-1a.- Incremental Net Benefits by Rule Alternative—Enhanced COI (Annualized Present Value, \$millions, 2003\$)\*

Data Set	Rule Alternative	Annual Costs A			Annual Benefits B			Incremental Costs C			Incremental Benefits D			Incremental Net Benefits E=D-C		
		Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High			
3 Percent Discount Rate																
ICR	A4	\$ 81	\$ 1,753	\$ 2,661	\$ 81	\$ 645	\$ 1,753	\$ 2,661	\$ 565	\$ 1,673	\$ 2,580					
	A3 - Preferred	\$ 133	\$ 1,853	\$ 2,822	\$ 53	\$ 42	\$ 100	\$ 161	\$ (11)	\$ 47	\$ 108					
	A2	\$ 163	\$ 1,871	\$ 2,851	\$ 30	\$ 7	\$ 18	\$ 29	\$ (23)	\$ (12)	\$ (1)					
A1	\$ 403	\$ 1,895	\$ 2,891	\$ 239	\$ 10	\$ 24	\$ 40	\$ (229)	\$ (216)	\$ (200)						
ICRSSL	A4	\$ 57	\$ 405	\$ 657	\$ 57	\$ 155	\$ 405	\$ 657	\$ 98	\$ 347	\$ 600					
	A3 - Preferred	\$ 93	\$ 458	\$ 744	\$ 35	\$ 22	\$ 53	\$ 87	\$ (13)	\$ 18	\$ 52					
	A2	\$ 123	\$ 489	\$ 795	\$ 30	\$ 13	\$ 31	\$ 51	\$ (17)	\$ 1	\$ 21					
A1	\$ 403	\$ 558	\$ 910	\$ 280	\$ 31	\$ 69	\$ 115	\$ (249)	\$ (210)	\$ (165)						
ICRSSM	A4	\$ 65	\$ 306	\$ 1,247	\$ 65	\$ 306	\$ 796	\$ 1,247	\$ 241	\$ 731	\$ 1,182					
	A3 - Preferred	\$ 106	\$ 344	\$ 886	\$ 1,393	\$ 41	\$ 38	\$ 90	\$ 146	\$ (3)	\$ 49					
	A2	\$ 137	\$ 359	\$ 919	\$ 1,447	\$ 31	\$ 15	\$ 33	\$ 54	\$ (16)	\$ 2					
A1	\$ 403	\$ 386	\$ 981	\$ 1,548	\$ 266	\$ 27	\$ 62	\$ 102	\$ (239)	\$ (204)						
7 Percent Discount Rate																
ICR	A4	\$ 93	\$ 1,421	\$ 2,156	\$ 93	\$ 523	\$ 1,421	\$ 2,156	\$ 430	\$ 1,328	\$ 2,063					
	A3 - Preferred	\$ 150	\$ 1,501	\$ 2,286	\$ 57	\$ 34	\$ 80	\$ 130	\$ (24)	\$ 23	\$ 72					
	A2	\$ 182	\$ 1,515	\$ 2,309	\$ 31	\$ 6	\$ 14	\$ 23	\$ (26)	\$ (17)	\$ (8)					
A1	\$ 436	\$ 1,534	\$ 2,341	\$ 255	\$ 8	\$ 19	\$ 32	\$ (246)	\$ (236)	\$ (223)						
ICRSSL	A4	\$ 68	\$ 328	\$ 533	\$ 68	\$ 126	\$ 328	\$ 533	\$ 58	\$ 261	\$ 465					
	A3 - Preferred	\$ 107	\$ 371	\$ 603	\$ 39	\$ 18	\$ 43	\$ 70	\$ (21)	\$ 4	\$ 31					
	A2	\$ 139	\$ 396	\$ 644	\$ 32	\$ 11	\$ 25	\$ 41	\$ (21)	\$ (7)	\$ 9					
A1	\$ 437	\$ 452	\$ 737	\$ 298	\$ 67	\$ 56	\$ 92	\$ (231)	\$ (242)	\$ (205)						
ICRSSM	A4	\$ 76	\$ 248	\$ 1,011	\$ 76	\$ 248	\$ 645	\$ 1,011	\$ 172	\$ 569	\$ 935					
	A3 - Preferred	\$ 121	\$ 279	\$ 718	\$ 1,128	\$ 45	\$ 31	\$ 73	\$ 118	\$ (14)	\$ 27					
	A2	\$ 154	\$ 291	\$ 744	\$ 1,171	\$ 33	\$ 12	\$ 27	\$ 43	\$ (21)	\$ (6)					
A1	\$ 437	\$ 313	\$ 794	\$ 1,253	\$ 283	\$ 22	\$ 50	\$ 82	\$ (261)	\$ (233)						

Table VI.F-1b.- Incremental Net Benefits by Rule Alternative—Traditional COI (Annualized Present Value, \$millions, 2003)\*

Data Set	Rule Alternative	Annual Costs A			Annual Benefits B			Incremental Costs C			Incremental Benefits D			Incremental Net Benefits E=D-C		
		Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
3 Percent Discount Rate																
ICR	A4	\$ 81	\$ 468	\$ 1,937	\$ 1,273	\$ 1,937	\$ 81	\$ 468	\$ 1,273	\$ 1,937	\$ 388	\$ 1,193	\$ 1,856	\$ 388	\$ 1,193	\$ 1,856
	A3 - Preferred	\$ 133	\$ 497	\$ 1,341	\$ 2,047	\$ 53	\$ 29	\$ 68	\$ 110	\$ (24)	\$ 15	\$ 57	\$ (24)	\$ 15	\$ 57	\$ (24)
	A2	\$ 163	\$ 502	\$ 1,353	\$ 2,066	\$ 30	\$ 5	\$ 12	\$ 20	\$ (25)	\$ (18)	\$ (10)	\$ (25)	\$ (18)	\$ (10)	\$ (25)
	A1	\$ 403	\$ 509	\$ 1,369	\$ 2,093	\$ 239	\$ 7	\$ 16	\$ 27	\$ (232)	\$ (223)	\$ (212)	\$ (232)	\$ (223)	\$ (212)	\$ (232)
ICRSSL	A4	\$ 57	\$ 115	\$ 299	\$ 486	\$ 57	\$ 115	\$ 299	\$ 486	\$ 57	\$ 115	\$ 299	\$ 486	\$ 57	\$ 115	\$ 299
	A3 - Preferred	\$ 93	\$ 130	\$ 335	\$ 546	\$ 35	\$ 9	\$ 21	\$ 35	\$ (21)	\$ (9)	\$ 4	\$ (21)	\$ (9)	\$ 4	
	A1	\$ 403	\$ 160	\$ 403	\$ 658	\$ 280	\$ 21	\$ 47	\$ 78	\$ (259)	\$ (233)	\$ (201)	\$ (259)	\$ (233)	\$ (201)	\$ (259)
ICRSSM	A4	\$ 65	\$ 224	\$ 583	\$ 915	\$ 65	\$ 224	\$ 583	\$ 915	\$ 65	\$ 224	\$ 583	\$ 915	\$ 65	\$ 224	\$ 583
	A3 - Preferred	\$ 106	\$ 250	\$ 644	\$ 1,014	\$ 41	\$ 26	\$ 61	\$ 99	\$ (15)	\$ 20	\$ 58	\$ (15)	\$ 20	\$ 58	\$ (15)
	A1	\$ 403	\$ 279	\$ 708	\$ 1,120	\$ 266	\$ 18	\$ 42	\$ 69	\$ (247)	\$ (224)	\$ (197)	\$ (247)	\$ (224)	\$ (197)	\$ (247)
7 Percent Discount Rate																
ICR	A4	\$ 93	\$ 380	\$ 1,034	\$ 1,574	\$ 93	\$ 380	\$ 1,034	\$ 1,574	\$ 287	\$ 941	\$ 1,481	\$ 287	\$ 941	\$ 1,481	\$ 287
	A3 - Preferred	\$ 150	\$ 403	\$ 1,089	\$ 1,662	\$ 57	\$ 23	\$ 55	\$ 88	\$ (34)	\$ (3)	\$ 31	\$ (34)	\$ (3)	\$ 31	\$ (34)
	A1	\$ 436	\$ 413	\$ 1,112	\$ 1,700	\$ 31	\$ 4	\$ 10	\$ 16	\$ (22)	\$ (15)	\$ (15)	\$ (22)	\$ (15)	\$ (15)	\$ (22)
ICRSSL	A4	\$ 68	\$ 93	\$ 243	\$ 396	\$ 68	\$ 93	\$ 243	\$ 396	\$ 68	\$ 93	\$ 243	\$ 396	\$ 68	\$ 93	\$ 243
	A3 - Preferred	\$ 107	\$ 105	\$ 272	\$ 443	\$ 39	\$ 12	\$ 29	\$ 48	\$ (27)	\$ (10)	\$ 9	\$ (27)	\$ (10)	\$ 9	\$ (27)
	A1	\$ 437	\$ 130	\$ 327	\$ 534	\$ 298	\$ 17	\$ 38	\$ 63	\$ (281)	\$ (260)	\$ (235)	\$ (281)	\$ (260)	\$ (235)	\$ (281)
ICRSSM	A4	\$ 76	\$ 182	\$ 474	\$ 744	\$ 76	\$ 182	\$ 474	\$ 744	\$ 106	\$ 398	\$ 668	\$ 106	\$ 398	\$ 668	\$ 106
	A3 - Preferred	\$ 121	\$ 203	\$ 523	\$ 824	\$ 45	\$ 21	\$ 49	\$ 80	\$ (24)	\$ 4	\$ 35	\$ (24)	\$ 4	\$ 35	\$ (24)
	A1	\$ 437	\$ 226	\$ 575	\$ 909	\$ 283	\$ 15	\$ 34	\$ 56	\$ (268)	\$ (249)	\$ (227)	\$ (268)	\$ (249)	\$ (227)	\$ (268)

\*Notes: The traditional COI only includes valuation for medical costs and lost work time (including some portion of unpaid household production). The enhanced COI also factors in valuations for lost personal time (non-worktime) such as child care and homemaking (to the extent not covered by the traditional COI), time with family, and recreation, and lost productivity at work on days when workers are ill but go to work anyway. Source: Chapter 8 of the LT2ESWTR Economic Analysis (USEPA 2005a). High, medium, and low estimates reflect the mean estimates for a range of dose-response modeling assumptions. See Appendix N of the LT2ESWTR Economic Analysis.

All of the options in the microbial toolbox that PWSs will implement to

comply with today's rule will also reduce levels of other microbial

pathogens. For example, watershed control programs and intake relocation



will cut overall pathogen levels by reducing fecal contamination in the source water. Membrane, bag, and cartridge filters will remove pathogenic protozoa like *Giardia lamblia* that are similar in size to or larger than *Cryptosporidium*. Lowering finished water turbidity from conventional and direct filtration will improve removal of pathogens across a broad size range, including viruses, bacteria, and protozoa. Inactivation technologies like ozone and UV are highly effective against a large number of different pathogen types.

Some membrane technologies that PWSs may install to comply with the LT2ESWTR can also reduce or eliminate chemical contaminants including arsenic, DBPs, and atrazine. The use of UV for inactivation of *Cryptosporidium* may reduce the chlorine dosage that some PWSs must apply, which can reduce levels of DBPs. EPA has recently finalized a rule to further control arsenic levels in drinking water and is concurrently establishing the Stage 2 DBPR to address DBP control.

The extent to which the LT2ESWTR can reduce the overall risk from other contaminants has not been quantitatively evaluated because EPA lacks sufficient data on the co-occurrence among *Cryptosporidium* and other microbial pathogens and contaminants. Further, due to the difficulties in establishing which PWSs would have multiple problems, such as microbial contamination, arsenic, and DBPs or any combination of the three, no estimate was made of the potential cost savings from addressing more than one contaminant simultaneously.

#### *H. Are There Increased Risks From Other Contaminants?*

It is unlikely that the LT2ESWTR will result in a significant increase in risk from other contaminants for most PWSs. Many of the options that PWSs will select to comply with the LT2ESWTR, such as UV, additional or improved filtration, and watershed control, do not form DBPs. Ozone, another technology that is effective against *Cryptosporidium*, does form DBPs (e.g., bromate). However, bromate is currently regulated under the Stage 1 DBPR, and PWSs will have to comply with this regulation if they implement ozone to meet the LT2ESWTR.

#### *I. What Are the Effects of the Contaminant on the General Population and Groups Within the General Populations That Are Identified as Likely To be at Greater Risk of Adverse Health Effects?*

Section III of this preamble discusses the health effects associated with *Cryptosporidium* on the general population as well as the effects on other sensitive sub-populations. In addition, health effects associated with children and pregnant women are discussed in greater detail in section VII.G of this preamble.

#### *J. What Are the Uncertainties in the Risk, Benefit, and Cost Estimates for the LT2ESWTR?*

For today's final rule, EPA has modeled the current baseline risk from *Cryptosporidium* exposure through drinking water, along with the reduction in risk and the cost for various rule alternatives. There is uncertainty in the risk calculation, the benefit estimates, the cost estimates, and the interaction with other regulations. The LT2ESWTR EA has an extensive discussion of relevant uncertainties (USEPA 2005a), and a brief summary of the major uncertainties follows.

In regard to the risk estimates, the most significant areas of uncertainty are *Cryptosporidium* occurrence, treatment, and infectivity. Among the three available occurrence data sets, the ICR plant-mean data were higher than the ICRSSM or ICRSSL plant-mean data at the 90th percentile. The reasons for these differing results are not well understood but may stem from year-to-year variation in occurrence and differences in the sampling and measurement methods employed. The ICRSSM and ICRSSL data sets use a newer, more reliable sampling method but include fewer plants and a shorter time frame. Additional uncertainty is associated with estimating finished water occurrence because the analysis is based on estimates of treatment plant performance in removing *Cryptosporidium*.

EPA has addressed some of the uncertainty in occurrence by evaluating benefits and costs for regulatory alternatives with each *Cryptosporidium* data set. Further, in the 2-dimensional Monte Carlo simulation models used to estimate risk, key parameters like occurrence and treatment efficiency are treated as both variable and uncertain. This approach is intended to account for the limitations in available data and the recognized variability in these parameters among PWSs.

EPA has also considered occurrence data from additional sources. For example, the LT2ESWTR EA discusses a study of infectious *Cryptosporidium* in the finished water of 82 filtration plants by Aboytes et al., 2004. The mean level of infectious *Cryptosporidium* measured in this study is higher than EPA has estimated using the ICR, ICRSSM, or ICRSSL data sets. This result suggests that *Cryptosporidium* occurrence at these plants may have exceeded levels during the ICR and ICRSS surveys or that EPA may have overestimated the efficiency of treatment plants in removing *Cryptosporidium*.

In regard to *Cryptosporidium* infectivity, EPA evaluated data from human feeding studies conducted with different *Cryptosporidium* isolates. The measured infectivity of these isolates varied widely, however, and how well these isolates represent *Cryptosporidium* that causes disease in PWSs is uncertain. In addition, extrapolating from the higher *Cryptosporidium* dosing levels used in the human feeding studies to the exposure levels typical for drinking water (e.g., one oocyst) is uncertain. Another source of uncertainty is differences that exist among populations groups, such as individuals that are more sensitive (e.g., children, immunocompromised) or less sensitive (previously infected adults).

EPA accounted for some of this uncertainty in infectivity by treating the human feeding study results for different *Cryptosporidium* isolates as random samples from a larger and unknown environmental distribution of *Cryptosporidium* infectivity. EPA used a variety of models for this analysis, as recommended by the SAB, and presents results for a range of models to account for uncertainty in model selection. In addition, limited data on levels of *Cryptosporidium* in the 1993 Milwaukee outbreak and associated disease incidence suggest that the infectivity of the *Cryptosporidium* responsible for that outbreak is within the range EPA has estimated for the risk assessment in today's rule.

Unquantified benefits from the reduction of co-occurring microbial pathogens, as described earlier, are a significant source of uncertainty in the estimate of benefits for the LT2ESWTR. EPA is also uncertain about the monetization of avoided disease from *Cryptosporidium* and has addressed this uncertainty through the use of both traditional and enhanced COI values for benefits estimates.

While all of the significant costs of today's rule have been identified by

EPA, there are uncertainties in the estimates. Occurrence is the most significant source of uncertainty in costs, and EPA has attempted to account for this uncertainty through the use of different occurrence data sets and Monte Carlo modeling as described previously. EPA has also estimated uncertainty in unit process costs for treatment technologies. In addition, the cost assessment for today's rule includes sensitivity analyses, such as an assessment of the impact of influent bromide levels on technology selection. Chapter 6 of the LT2ESWTR EA provides a fuller description of uncertainties in the cost estimates (USEPA 2005a).

Last, EPA has recently finalized or is currently finalizing new regulations for arsenic, radon, Cryptosporidium in small surface water PWSs, filter backwash recycling, microbial pathogens in PWSs using ground water, and DBPs. These rules may have overlapping impacts on some PWSs, but the extent is not possible to estimate due to lack of information on co-occurrence. However, PWSs may choose treatment technologies that will address multiple contaminants. Therefore, while the total cost impact of these drinking

water rules is uncertain, it is most likely less than the estimated total cost of all individual rules combined.

**K. What Is the Benefit/Cost Determination for the LT2ESWTR?**

The Agency has determined that the benefits of the LT2ESWTR justify the costs. As discussed in section VII.C, the rule provides a large reduction in endemic cryptosporidiosis illness and mortalities. More stringent alternatives provide greater reductions but at higher costs. Alternative A1 provides the greatest overall reduction in illnesses and mortalities but the incremental benefits between this option and alternative A3 (today's final rule) are relatively small while the incremental costs are significant. In addition, today's rule, unlike alternative A1, specifically targets those PWSs whose source water requires higher levels of treatment.

Tables VI.K-1a and VI.K-1b present net benefits for the four regulatory alternatives that were evaluated. Generally, analysis of net benefits is used to identify alternatives where benefits exceed costs, as well as the alternative that maximizes net benefits. However, as with the analysis of incremental net benefits discussed

previously, the usefulness of this analysis in evaluating regulatory alternatives for the LT2ESWTR is somewhat limited because many benefits from this rule are unquantified and nonmonetized. Analyses of net benefits should consider both quantified and unquantified (where possible) benefits and costs.

Also, as noted earlier, the regulatory alternatives considered for the LT2ESWTR vary both in the population that experiences benefits and costs (i.e., treatment bin boundaries) and the magnitude of the benefits and costs (i.e., treatment requirements). Consequently, the more stringent regulatory alternatives provide benefits to population groups that do not experience any benefit under less stringent alternatives.

As shown by Tables VI.K-1a and VI.K-1b, net benefits are positive for all four regulatory alternatives evaluated under most occurrence and discount rate scenarios. With both the enhanced COI and traditional COI, net benefits are highest for the alternative A3, which is today's final rule, under the majority of occurrence distributions and discount rates evaluated.

**Table VI.K-1a.—Mean Net Benefits by Rule Option—Enhanced COI<sup>1</sup> (\$millions, 2003\$)**

Data Set	Rule Alternative	Annualized Value					
		3%, 25 Years			7%, 25 Years		
		Low	Medium	High	Low	Medium	High
ICR	A1	\$ 260	\$ 1,492	\$ 2,447	\$ 126	\$ 1,098	\$ 1,897
	A2	\$ 498	\$ 1,708	\$ 2,655	\$ 366	\$ 1,333	\$ 2,112
	A3 - Preferred	\$ 527	\$ 1,720	\$ 2,662	\$ 396	\$ 1,351	\$ 2,126
	A4	\$ 550	\$ 1,673	\$ 2,566	\$ 427	\$ 1,328	\$ 2,061
ICRSSL	A1	\$ (223)	\$ 156	\$ 466	\$ (265)	\$ 15	\$ 292
	A2	\$ 43	\$ 366	\$ 647	\$ 6	\$ 257	\$ 496
	A3 - Preferred	\$ 65	\$ 365	\$ 632	\$ 32	\$ 264	\$ 491
	A4	\$ 87	\$ 347	\$ 589	\$ 58	\$ 261	\$ 465
ICRSSM	A1	\$ (58)	\$ 578	\$ 1,104	\$ (132)	\$ 358	\$ 809
	A2	\$ 198	\$ 782	\$ 1,285	\$ 130	\$ 591	\$ 1,010
	A3 - Preferred	\$ 218	\$ 780	\$ 1,267	\$ 153	\$ 597	\$ 1,002
	A4	\$ 230	\$ 731	\$ 1,171	\$ 172	\$ 569	\$ 935

Table VI.K-1b.—Mean Net Benefits by Rule Option—Traditional COI<sup>1</sup> (\$millions, 2003\$)

Data Set	Rule Alternative	Annualized Value					
		3%, 25 Years			7%, 25 Years		
		Low	Medium	High	Low	Medium	High
ICR	A1	\$ 64	\$ 967	\$ 1,649	\$ (31)	\$ 675	\$ 1,256
	A2	\$ 305	\$ 1,190	\$ 1,870	\$ 211	\$ 917	\$ 1,481
	A3 - Preferred	\$ 337	\$ 1,208	\$ 1,887	\$ 243	\$ 939	\$ 1,502
	A4	\$ 373	\$ 1,193	\$ 1,842	\$ 285	\$ 941	\$ 1,478
ICRSSL	A1	\$ (284)	\$ 0	\$ 214	\$ (315)	\$ (109)	\$ 90
	A2	\$ (9)	\$ 233	\$ 432	\$ (35)	\$ 150	\$ 324
	A3 - Preferred	\$ 18	\$ 242	\$ 433	\$ (7)	\$ 166	\$ 331
	A4	\$ 46	\$ 242	\$ 418	\$ 25	\$ 175	\$ 327
ICRSSM	A1	\$ (165)	\$ 306	\$ 676	\$ (218)	\$ 138	\$ 465
	A2	\$ 99	\$ 529	\$ 890	\$ 50	\$ 387	\$ 692
	A3 - Preferred	\$ 124	\$ 538	\$ 889	\$ 77	\$ 402	\$ 698
	A4	\$ 148	\$ 518	\$ 840	\$ 106	\$ 398	\$ 668

<sup>1</sup>The traditional COI only includes valuation for medical costs and lost work time (including some portion of unpaid household production). The enhanced COI also factors in valuations for lost personal time (non-worktime) such as child care and homemaking (to the extent not covered by the traditional COI), time with family, and recreation, and lost productivity at work on days when workers are ill but go to work anyway. Source: Chapter 8 of the *LT2ESWTR Economic Analysis* (USEPA 2005a). High, medium, and low estimates reflect the mean estimates for a range of dose-response modeling assumptions. See Appendix N of the *LT2ESWTR Economic Analysis*.

In addition to the net benefits of the LT2ESWTR, the Agency used several other techniques to compare costs and benefits. For example, EPA calculated the cost of the rule per case avoided. Tables VI.K-2a, b and c show both the cost of the rule per illness avoided and cost of the rule per death avoided. This cost effectiveness measure is another way of examining the benefits and costs

of the rule but should not be used to compare alternatives because an alternative with the lowest cost per illness/death avoided may not result in the highest net benefits. With the exception of alternative A1, the rule options look favorable when the cost per case avoided is compared to both the weighted cost of cryptosporidiosis illness (\$844 and \$274 for the two COI

approaches) and the mean value of a statistical death avoided—approximately \$7 million dollars. Additional information about this analysis and other methods of comparing benefits and costs can be found in chapter 8 of the *LT2ESWTR EA* (USEPA 2005a).

Table VI.K-2a.—Cost per Illness or Death Avoided<sup>1</sup>, Low Estimate

Data Set	Rule Alternative	Cost Per Illness Avoided (\$)		Cost Per Death Avoided (\$Millions, 2000\$)		Benefit/Cost Ratio (Enhanced COI)		Benefit/Cost Ratio (Traditional COI)	
		3%	7%	3%	7%	3%	7%	3%	7%
		ICR	A4	\$ 398	\$ 837	\$ 1.8	\$ 3.9	8.0	5.6
A3 - Preferred	\$ 566		\$ 1,172	\$ 2.7	\$ 5.6	5.2	3.7	3.7	2.7
A2	\$ 739		\$ 1,503	\$ 3.5	\$ 7.1	4.3	3.1	3.1	2.2
ICRSSL	A1	\$ 1,791	\$ 3,546	\$ 8.5	\$ 16.7	1.8	1.3	1.3	0.9
	A4	\$ 1,241	\$ 2,666	\$ 5.3	\$ 11.3	2.7	1.9	2.0	1.4
	A3 - Preferred	\$ 1,598	\$ 3,366	\$ 7.2	\$ 15.1	1.9	1.3	1.4	1.0
	A2	\$ 2,073	\$ 4,265	\$ 9.4	\$ 19.4	1.5	1.1	1.1	0.8
ICRSSM	A1	\$ 5,683	\$ 11,259	\$ 27.0	\$ 53.3	0.6	0.5	0.4	0.3
	A4	\$ 690	\$ 1,470	\$ 3.1	\$ 6.5	4.7	3.3	3.5	2.4
	A3 - Preferred	\$ 913	\$ 1,913	\$ 4.2	\$ 8.9	3.2	2.3	2.4	1.7
	A2	\$ 1,207	\$ 2,474	\$ 5.6	\$ 11.5	2.6	1.9	1.9	1.4
	A1	\$ 3,259	\$ 6,456	\$ 15.4	\$ 30.6	1.0	0.7	0.7	0.5

Table VI.K-2b.—Cost per Illness or Death Avoided<sup>1</sup>, Medium Estimate

Data Set	Rule Alternative	Cost Per Illness Avoided (\$)		Cost Per Death Avoided (\$Millions, 2000\$)		Benefit/Cost Ratio (Enhanced COI)		Benefit/Cost Ratio (Traditional COI)	
		3%	7%	3%	7%	3%	7%	3%	7%
		ICR	A4	\$ 147	\$ 309	\$ 0.7	\$ 1.4	21.7	15.3
A3 - Preferred	\$ 227		\$ 468	\$ 1.1	\$ 2.2	13.9	10.0	10.1	7.2
A2	\$ 275		\$ 559	\$ 1.3	\$ 2.6	11.5	8.3	8.3	6.0
A1	\$ 668		\$ 1,322	\$ 3.1	\$ 6.2	4.7	3.5	3.4	2.5
ICRSSL	A4	\$ 476	\$ 1,022	\$ 2.0	\$ 4.3	7.1	4.9	5.2	3.6
	A3 - Preferred	\$ 661	\$ 1,385	\$ 2.9	\$ 6.1	4.9	3.5	3.6	2.6
	A2	\$ 808	\$ 1,663	\$ 3.7	\$ 7.5	4.0	2.9	2.9	2.1
	A1	\$ 2,258	\$ 4,472	\$ 10.6	\$ 21.0	1.4	1.0	1.0	0.7
ICRSSM	A4	\$ 265	\$ 565	\$ 1.2	\$ 2.5	12.3	8.5	9.0	6.3
	A3 - Preferred	\$ 382	\$ 796	\$ 1.7	\$ 3.6	8.4	5.9	6.1	4.3
	A2	\$ 473	\$ 969	\$ 2.2	\$ 4.5	6.7	4.8	4.9	3.5
	A1	\$ 1,287	\$ 2,548	\$ 6.0	\$ 11.9	2.4	1.8	1.8	1.3

Table VI.K-2c.—Cost per Illness or Death Avoided<sup>1</sup>, High Estimate

Data Set	Rule Alternative	Cost Per Illness Avoided (\$)		Cost Per Death Avoided (\$Millions, 2000\$)		Benefit/Cost Ratio (Enhanced COI)		Benefit/Cost Ratio (Traditional COI)	
		3%	7%	3%	7%	3%	7%	3%	7%
ICR	A4	\$ 97	\$ 205	\$ 0.4	\$ 0.9	33.0	23.2	24.0	16.9
	A3 - Preferred	\$ 140	\$ 289	\$ 0.7	\$ 1.4	21.2	15.2	15.3	11.0
	A2	\$ 182	\$ 369	\$ 0.8	\$ 1.7	17.5	12.7	12.7	9.2
	A1	\$ 440	\$ 872	\$ 2.1	\$ 4.1	7.2	5.4	5.2	3.9
ICRSSL	A4	\$ 295	\$ 633	\$ 1.3	\$ 2.7	11.4	7.9	8.5	5.8
	A3 - Preferred	\$ 385	\$ 810	\$ 1.7	\$ 3.6	8.0	5.6	5.9	4.2
	A2	\$ 500	\$ 1,029	\$ 2.3	\$ 4.6	6.5	4.6	4.7	3.4
	A1	\$ 1,394	\$ 2,762	\$ 6.6	\$ 13.0	2.3	1.7	1.6	1.2
ICRSSM	A4	\$ 170	\$ 363	\$ 0.8	\$ 1.6	19.3	13.4	14.2	9.9
	A3 - Preferred	\$ 228	\$ 478	\$ 1.1	\$ 2.2	13.1	9.3	9.6	6.8
	A2	\$ 302	\$ 619	\$ 1.4	\$ 2.9	10.6	7.6	7.7	5.5
	A1	\$ 820	\$ 1,624	\$ 3.9	\$ 7.6	3.8	2.9	2.8	2.1

<sup>1</sup>The calculations presented here do not reflect discounting of the physical incidence of morbidity or mortality.

Source: Chapter 8 of the *LT2ESWTR Economic Analysis* (USEPA 2005a)

Note: High, medium, and low estimates reflect the mean estimates for a range of dose-response modeling assumptions. See Appendix N of the *LT2ESWTR Economic Analysis* (USEPA, 2005a).

#### L. Summary of Major Comments

EPA received significant public comment on the analysis of benefits and costs of the August 11, 2003 proposed LT2ESWTR in the following areas: Cryptosporidium occurrence, drinking water consumption, Cryptosporidium infectivity (i.e., dose-response), and valuation of benefits. The following discussion summarizes public comment in these areas and EPA's responses.

##### 1. Cryptosporidium Occurrence

With respect to the analysis of Cryptosporidium occurrence, two areas that received significant public comment are the quality of the ICR and ICRSS data sets (i.e., whether the estimates derived from them should be regarded as equally plausible) and the treatment of samples in which no Cryptosporidium is detected (i.e., observed zeros).

a. *Quality of the ICR and ICRSS data sets.* As noted earlier, the ICR, ICRSSM, and ICRSSL data sets differ significantly in the high concentration portion of the occurrence distribution (e.g., 90th percentile). While the measurement method employed in the ICRSS had higher recovery and less variable volumes assayed, the ICR produced a much greater number of assays and source waters sampled. Lacking a technical basis to conclude that one data set provides a better estimate, EPA conducted separate analyses of costs and benefits for all three data sets. EPA requested comment on this approach.

The majority of commenters on this issue supported EPA's approach of analyzing the three data sets separately to represent uncertainty about occurrence. Two commenters suggested that the ICR data would be more reliable for estimating national occurrence due to the larger number of samples, while two others viewed the ICRSS data as more reliable due to the improved analytical method. No commenters provided a technical analysis indicating that one data set is more accurate. Given these comments, EPA has retained the approach of analyzing costs and benefits separately for each occurrence data set in today's final rule.

b. *Treatment of observed zeros.* One commenter remarked that the majority of samples in which no oocysts were detected (i.e., observed zeros) likely contained no oocysts in the volume assayed. This commenter was concerned with a parameter in EPA's occurrence analysis model for "true zero," which characterizes the likelihood that a source water is entirely free of Cryptosporidium at all times. In EPA's model, the true zero parameter was assigned a value of 0.1 percent. As described in USEPA (2005b), EPA based this assumption on the finding that intensive sampling of surface waters usually detects Cryptosporidium, even in protected watersheds. The commenter concluded, however, that the true zero parameter resulted in the model assigning a value of at least 1 oocyst to 99.9 percent of samples.

EPA responds that the true zero parameter in the occurrence analysis model does not operate in this way. While the model is set-up to estimate mean source water concentrations and not the concentrations in individual volumes assayed, the model recognizes that the majority of samples in the ICR and ICRSS contained no oocysts. The model does assume that few, if any, of the source waters sampled in these surveys never contained a single oocyst (the meaning of the true zero parameter). EPA has clarified the definition of the true zero parameter in USEPA (2005b). EPA has also conducted a sensitivity analysis in which the true zero parameter was varied from values of 0 to 50 percent, with little effect on estimates of risk, benefit, and cost for today's rule.

##### 2. Drinking Water Consumption

Two commenters were concerned with the distribution for drinking water consumption that EPA used in the proposed LT2ESWTR. This distribution, which was based on a 1994–1996 survey by the United States Department of Agriculture (USDA), reflects water consumption from all sources. Commenters recommended two modifications to this approach: (1) Adjust the distribution to account for factors like bottled water and boiled water use; and (2) use an alternative distribution from the USDA survey that reflects consumption of community water system (CWS) water only.



In response, EPA agrees that the distribution should be adjusted to remove consumption attributable to bottled water. For the consumption distribution in today's final rule, EPA subtracted bottled water usage, based on information in the USDA survey, which had the effect of reducing consumption by approximately 14 percent in comparison to the proposal. EPA does not have information on the effectiveness of heating water to make coffee or tea for inactivating *Cryptosporidium* and has not modified the consumption distribution on this basis.

EPA continues to believe that the USDA distribution for consumption of water from all sources, minus bottled water consumption, provides the best available estimate for consumption of water from CWSs for people served by CWSs. The USDA distribution for consumption of CWS water only, which a commenter recommended, includes people not served by CWSs (e.g., people with private wells). Inclusion of these individuals has the effect of underestimating the consumption of CWS water for people served by CWSs in this distribution. In contrast, the distribution for consumption of water from all sources includes people not served by CWSs and the sources those people use (e.g., private wells). This avoids the problem of underestimating consumption for individuals served by CWS. Accordingly, EPA has retained the use of this distribution in today's final rule, with the adjustment stated previously for bottled water consumption.

### 3. *Cryptosporidium* Infectivity

In regard to *Cryptosporidium* infectivity (i.e., dose-response assessment), EPA received significant comment on limitations in the human feeding studies (e.g. representativeness of *Cryptosporidium* isolates used in the studies, numbers of subjects) and uncertainty in extrapolating from high study doses to low drinking water doses. EPA believes that the statistical analysis of dose-response data, as described in USEPA (2005a), properly accounted for these limitations and uncertainties.

The statistical models used by EPA treated the isolates studied as a random sample from a larger population of environmental isolates, treated the subjects studied as a random sample from the larger population of healthy individuals, and treated each individual's outcome as a chance event, where the infection probability is a function of the challenge dose. Collectively, these uncertainties

contributed to the significant uncertainty in EPA's estimate of the likelihood of infection given one oocyst ingested.

Since the LT2ESWTR proposal, EPA has reviewed results from additional human feeding studies with *Cryptosporidium* isolates and analyzed data from these and the feeding studies considered for the proposal with additional dose-response models (USEPA 2005a). As described in Chapter 5 and Appendix N of the LT2ESWTR EA, the infectivity estimates from the proposal are near the middle of the range of estimates derived with the additional feeding study data and dose-response models. Further, the mean estimates from these new analyses fall within the 90th percentile uncertainty bounds for infectivity estimates from the proposal (USEPA 2005a). Consequently, EPA believes that the infectivity estimates from the additional feeding study data and dose-response models are consistent with and supportive of the estimates of infectivity from the proposal. Further, EPA's estimates of infectivity are consistent with data on the infectivity of *Cryptosporidium* in the 1993 Milwaukee outbreak (USEPA 2005a).

### 4. Valuation of Benefits

In the area of benefits valuation, EPA received significant public comment on the valuation of morbidity, valuation of lost time under the Enhanced COI approach, and unquantified benefits.

a. *Valuation of morbidity.* EPA received a comment that endemic cases that do not show up in public health surveillance data may be too mild (and perhaps even asymptomatic) to be economically significant. EPA believes endemic cases are significant in terms of public health risk and economic impacts. As discussed earlier, only a small fraction of the millions of cases of gastrointestinal illnesses are traced to a specific illness (such as cryptosporidiosis); yet endemic disease clearly exists and those illnesses, even if mild, have public health consequences and economic impacts (e.g., missed work). For example, the benefits model in the EA assumes that 88 percent of all cases are mild, and yet those illnesses represent significant impacts nationally. Further, the risk assessment model separately computes infections and illnesses. Thus, asymptomatic infections are excluded; only avoided illnesses are assigned monetary benefits.

b. *Valuation of lost time under the enhanced cost of illness (COI) approach.* One commenter extensively questioned the approach used to value lost leisure

and nonwork time under the Enhanced COI approach, noting concerns about the relationship of the approach to standard economics practices, the plausibility of the resulting values, and the extent of peer review. The following discussion summarizes EPA's responses on these issues.

As discussed in detail in the EA (USEPA 2005a), EPA recognizes that the preferred approach for valuing health risk reductions is to rely on estimates of individual willingness to pay (WTP). In the absence of suitable WTP estimates, analysts often rely on approaches similar to the Traditional COI approach used for this rule, as noted by the commenter. However, empirical research as well as theoretic concerns suggest that these types of COI approaches will generally understate true WTP.

EPA designed the Enhanced COI approach to correct for one potential source of understatement—the impact of illness on unpaid work and leisure time. While the Enhanced COI approach is innovative, it is rooted in standard welfare economic theory and builds on approaches used to value time in numerous studies in the labor, transportation, recreation, and health economics literature. The commenter is concerned, however, that the Enhanced COI approach values nonwork time at a higher rate than many recreational studies, several of which value travel time at one-third of the wage rate. EPA's extensive review of the recreational literature suggests, however, that there is no consensus regarding the value of travel time, as discussed in the Appendix P of the EA (USEPA 2005a). In addition, travel has both pleasant and unpleasant aspects and hence may be valued less than other leisure activities, many of which may be valued at a rate higher than foregone wages.

To test the plausibility of the results, the commenter compares the value of a "lifetime case" of cryptosporidiosis to the value of statistical life (VSL) and suggests that the results (which show that such a case would be roughly 70 percent of VSL) are improbably high. However, EPA believes that this comparison is seriously flawed. There is no generally accepted standard for determining whether values for nonfatal risk reductions are "reasonable" compared to values for fatal risk reductions. In addition, the calculation of the value of a lifetime case of cryptosporidiosis contains several computational errors, and represents the loss of all waking time (not just losses attributable to cryptosporidiosis) and so is seriously overstated. Perhaps most important, the approach used to value

time losses in the Enhanced COI estimate is appropriate only for marginal changes in time use; it is not appropriate for the types of lifetime changes considered in the comparison.

The Enhanced COI estimates are based on an approach developed in the EPA report, *Valuing Time Losses Due to Illness under the 1996 Amendments to the Safe Drinking Water Act* (USEPA 2005e). This report has been subject to two rounds of independent peer review. In conclusion, EPA believes that including the Enhanced COI in conjunction with the Traditional COI is justified theoretically and that including both measures increases EPA's ability to understand the impacts of the rule.

#### VII. 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.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is a "significant regulatory action" because it may have an annual effect on the economy of \$100 million or more (estimated annual costs are \$93 to 133 million and \$107 to 150 million at 3 and 7 percent discount rates, respectively). As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

##### B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information

collection requirements contained in this rule under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2040-0266.

The information collected as a result of this rule will allow the States and EPA to determine appropriate requirements for specific PWSs and to evaluate compliance with the rule. For the first 3 years after LT2ESWTR promulgation, the major information requirements concern monitoring activities and compliance tracking. The information collection requirements are mandatory (40 CFR part 141) and the information collected is not confidential.

The estimate of annual average burden hours for the LT2ESWTR during the first three years following promulgation is 141,295 hours. The annual average cost estimate is \$4.4 million for labor and \$7 million per year for operation and maintenance including lab costs (which is a purchase of service). The burden hours per response is 0.63 hours and the cost per response is \$50.35. The frequency of response (average responses per respondent) is 90.3, annually. The estimated number of likely respondents is 2,503 (the product of burden hours per response, frequency, and respondents does not total the annual average burden hours due to rounding). Note that the burden hour estimates for the first 3-year cycle include some large PWS but not small PWS monitoring. Conversely, burden estimate for the second 3-year cycle will include remaining monitoring for large systems (those serving between 10,000 and 49,999 people) and small PWS monitoring, but not for large PWS serving 50,000 or more, which will have been completed by then.

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. In addition, EPA is amending the table in 40 CFR part 9 of currently approved OMB control numbers for various regulations to list the regulatory citations for the information requirements contained in this final rule.

##### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis for any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or 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.

The RFA provides default definitions for each type of small entity. Small entities are defined as: (1) a small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (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." However, the RFA also authorizes an agency to use alternative definitions for each category of small entity, "which are appropriate to the activities of the agency" after proposing the alternative definition(s) in the *Federal Register* and taking comment. 5 U.S.C. 601(3)-(5). In addition, to establish an alternative small business definition, agencies must consult with SBA's Chief Counsel for Advocacy.

For purposes of assessing the impacts of today's rule on small entities, EPA considered small entities to be public water systems serving 10,000 or fewer persons. As required by the RFA, EPA proposed using this alternative definition in the *Federal Register* (63 FR 7620, February 13, 1998), requested public comment, consulted with the Small Business Administration (SBA), and finalized the alternative definition in the Consumer Confidence Reports regulation (63 FR 44511, August 19, 1998). As stated in that Final Rule, the alternative definition is applied to this regulation as well.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by

this final rule are PWSs serving fewer than 10,000 people. We have determined that 152 of the 6,574 small PWSs, or 2.3 percent, regulated by the LT2ESWTR will experience an impact of 1 percent or greater of average annual

revenues; further, 18 PWSs, which are 0.3 percent of the small PWSs regulated by this rule, will experience an impact of 3 percent or greater of average annual revenues (see Table VII.C-1).

TABLE VII.C-1.—ANNUALIZED COMPLIANCE COST AS A PERCENTAGE OF REVENUES FOR SMALL ENTITIES (2003\$)

PWSs by ownership type and system size	Number of small systems	Percent of small systems	Average annual estimated revenues per system(\$)	Systems experiencing costs of $\geq 1\%$ of their revenues		Systems experiencing costs of $\geq 3\%$ of their revenues	
				Number of systems	Percent of systems	Number of systems	Percent of systems
	A	B	C	D=A*E	E	F=A*G	G
Small Government PWSs .....	2,827	43	2,649,186	65	2.3	8	0.3
Small Business PWSs .....	2,452	37	2,555,888	57	2.3	7	0.3
Small Organization PWSs .....	1,295	20	4,750,838	5	0.4	2	0.1
All Small Entity PWSs .....	6,574	100	2,981,331	152	2.3	18	0.3

Note: Detail may not add due to independent rounding. Data are based on the means of the highest modeled distributions using Information Collection Rule occurrence data set. Costs are discounted at 3 percent, summed to present value, and annualized over 25 years. Source: Chapter 7 and Appendix H of the LT2ESWTR EA (USEPA 2005a).

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. The LT2ESWTR contains a number of provisions to minimize the impact of the rule on PWSs generally, and on small PWSs in particular. The risk-targeted approach of the LT2ESWTR will impose additional treatment requirements only on the subset of PWSs with the highest vulnerability to *Cryptosporidium*, as indicated by source water pathogen levels. This approach will spare the majority of PWSs from the cost of installing additional treatment. Also, development of the microbial toolbox under the LT2ESWTR will provide both large and small PWSs with broad flexibility in selecting cost-effective compliance options to meet additional treatment requirements.

Small PWSs will monitor for *E. coli* as a screening analysis for source waters with low levels of fecal contamination. *Cryptosporidium* monitoring will only be required of small PWSs if they exceed the *E. coli* trigger value. Because *E. coli* analysis is much cheaper than *Cryptosporidium* analysis, the use of *E. coli* as a screen will significantly reduce monitoring costs for the majority of small PWSs. Further, small PWSs will not be required to initiate their monitoring until large PWS monitoring has been completed. This will provide small PWSs with additional time to become familiar with the rule and to prepare for monitoring and other compliance activities.

Funding may be available from programs administered by EPA and

other Federal agencies to assist small PWSs in complying with the LT2ESWTR. The Drinking Water State Revolving Fund (DWSRF) assists PWSs with financing the costs of infrastructure needed to achieve or maintain compliance with SDWA requirements. Through the DWSRF, EPA awards capitalization grants to States, which in turn can provide low-cost loans and other types of assistance to eligible PWSs. Loans made under the program can have interest rates between 0 percent and market rate and repayment terms of up to 20 years. States prioritize funding based on projects that address the most serious risks to human health and assist PWSs most in need. Congress provided \$1.275 billion for the DWSRF program in fiscal year 1997, and has provided an additional \$4.113 billion for the DWSRF program for fiscal years 1999 through 2003.

The DWSRF places an emphasis on small and disadvantaged communities. States must provide a minimum of 15% of the available funds for loans to small communities. A State has the option of providing up to 30% of the grant awarded to the State to furnish additional assistance to State-defined disadvantaged communities. This assistance can take the form of lower interest rates, principal forgiveness, or negative interest rate loans. The State may also extend repayment terms of loans for disadvantaged communities to up to 30 years. A State can set aside up to 2% of the grant to provide technical assistance to PWSs serving communities with populations fewer than 10,000.

In addition to the DWSRF, money is available from the Department of Agriculture's Rural Utility Service (RUS) and Housing and Urban Development's Community Development Block Grant (CDBG) program. RUS provides loans, guaranteed loans, and grants to improve, repair, or construct water supply and distribution systems in rural areas and towns of up to 10,000 people. In fiscal year 2003, RUS had over \$1.5 billion of available funds for water and environmental programs. The CDBG program includes direct grants to States, which in turn are awarded to smaller communities, rural areas, and *coloñas* in Arizona, California, New Mexico, and Texas and direct grants to U.S. territories and trusts. The CDBG budget for fiscal year 2003 totaled over \$4.4 billion.

Although not required by the RFA to convene a Small Business Advocacy Review (SBAR) Panel because EPA determined that the proposed rule would not have a significant economic impact on a substantial number of small entities, EPA did convene a panel to obtain advice and recommendations from representatives of the small entities potentially subject to this rule's requirements. For a description of the SBAR Panel and stakeholder recommendations, please see the proposed rule (USEPA 2003a).

#### D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 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 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.

EPA has determined that this rule contains a Federal mandate that may result in expenditures of \$100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA has prepared under section 202 of the UMRA a written statement which is summarized below.

Table VII.D-1 illustrates the annualized public and private costs for the LT2ESWTR.

**Table VII.D-1.- Public and Private Costs of the LT2ESWTR**

	Range of Annualized Costs (Million\$, 2003\$)						Percent of Total Cost
	3% Discount Rate		7% Discount Rate				
Publicly Owned PWS Costs	\$57.4	- \$82.7	\$65.9	- \$88.6	61.8%	- 62.0%	
State Costs	\$1.1	- \$1.2	\$1.4	- 1.4	1.2%	- 0.9%	
Tribal Costs	\$0.2	- \$0.2	\$0.2	- \$0.3	0.2%	- 0.2%	
<b>Total Public Costs</b>	<b>\$58.6</b>	<b>- 84.1</b>	<b>\$67.5</b>	<b>- 90.3</b>	<b>63.1%</b>	<b>- 63.0%</b>	
<b>Total Private Costs</b>	<b>\$34.3</b>	<b>- 49.4</b>	<b>\$39.3</b>	<b>- 60.2</b>	<b>36.9%</b>	<b>- 37.0%</b>	
<b>Total Costs</b>	<b>\$92.9</b>	<b>- \$133.4</b>	<b>\$106.8</b>	<b>- 150.5</b>	<b>100.0%</b>	<b>- 100.0%</b>	

Note: The ranges represent the ICRSSL (lowest) and Information Collection Rule (highest) modeled *Cryptosporidium* occurrence distributions. Detail may not add due to independent rounding.  
Source: The LT2ESWTR Economic Analysis (USEPA 2005a).

A more detailed description of this analysis is presented in Economic Analysis for the LT2ESWTR (USEPA 2005a).

As noted in section III, today's final rule is promulgated pursuant to section 1412 (b)(1)(A) of the Safe Drinking Water Act (SDWA), as amended in 1996, which directs EPA to promulgate a national primary drinking water

regulation for a contaminant if EPA determines that the contaminant may have an adverse effect on the health of persons, occurs in PWSs with a frequency and at levels of public health concern, and regulation presents a meaningful opportunity for health risk reduction.

Section VI of this preamble discusses the cost and benefits associated with the

LT2ESWTR. Details are presented in the Economic Analysis for the LT2ESTWR (USEPA 2005a). EPA quantified costs and benefits for four regulatory alternatives. The four alternatives are described in section VI. Table VII.D-2 summarizes the range of annual costs and benefits for each alternative.

Table VII.D-2.- Annual Benefits and Costs of Rule Alternatives (\$million, 2003\$)

Regulatory Alternative	Enhanced COI Range of Annualized Benefits (3%)	Traditional COI Range of Annualized Benefits (3%)	Enhanced COI Range of Annualized Benefits (7%)	Traditional COI Range of Annualized Benefits (7%)	Range of Annualized Costs (3%)	Range of Annualized Costs (7%)
Alternative A1	221 - 2891	160 - 2093	221 - 2341	130 - 1700	403 - 403	437 - 436
Alternative A2	191 - 2851	139 - 2066	154 - 2309	113 - 1678	123 - 163	139 - 182
Alternative A3 (Preferred Alternative)	177 - 2822	130 - 2047	144 - 2286	105 - 1662	93 - 133	107 - 150
Alternative A4	155 - 2661	115 - 1937	126 - 2156	93 - 1574	57 - 81	68 - 93

Source: The LT2ESWTR Economic Analysis (USEPA 2005a).

To meet the UMRA requirement in section 202, EPA analyzed future compliance costs and possible disproportionate budgetary effects. The Agency believes that the cost estimates, indicated earlier and discussed in more detail in section VI of this preamble, accurately characterize future compliance costs of today's rule.

In analyzing disproportionate impacts, EPA considered the impact on (1) different regions of the United States, (2) State, local, and Tribal governments, (3) urban, rural and other types of communities, and (4) any segment of the private sector. This analysis is presented in Chapter 7 of Economic Analysis for the LT2ESWTR (USEPA 2005a).

EPA has concluded that the LT2ESWTR will not cause a disproportionate budgetary effect. This rule imposes the same requirements on PWSs nationally and does not disproportionately affect any segment. This rule will treat similarly situated PWSs (in terms of size, water quality, available data, installed technology, and presence of uncovered finished storage facilities) in similar (proportionate) ways, without regard to geographic location, type of community, or segment of industry. The LT2ESWTR is a rule where requirements are proportionate to risk. Although some groups may have differing budgetary effects as a result of the LT2ESWTR, those costs are proportional to the need for greater information (monitoring) and risk posed (degree of treatment required). The variation in cost between large and small PWSs is due to economies of scale (a larger PWS can distribute cost across more customers). Regions will have varying impacts due to the number of affected PWSs.

Under UMRA section 202, EPA is required to estimate the potential macro-economic effects of the regulation. These types of effects include those on productivity, economic growth, full employment, creation of productive jobs, and international

competitiveness. Macro-economic effects tend to be measurable in nationwide econometric models only if the economic impact of the regulation reaches 0.25 percent to 0.5 percent of Gross Domestic Product (GDP). In 2003, real GDP was \$10,398 billion, so a rule would have to cost at least \$26 billion to have a measurable effect. A regulation with a smaller aggregate effect is unlikely to have any measurable impact unless it is highly focused on a particular geographic region or economic sector.

The macro-economic effects on the national economy from the LT2ESWTR should not have a measurable effect because the total annual costs for today's rule range from \$93 million to \$133 million based on median *Cryptosporidium* occurrence distributions from the ICRSSL and Information Collection Rule data sets and a discount rate of 3 percent (\$107 to \$150 million at a 7 percent discount rate). These annualized figures will remain constant over the 25-year implementation period that was evaluated, while GDP will probably continue to rise. Thus, the LT2ESWTR costs as a percentage of the national GDP will only decline over time. Costs will not be highly focused on a particular geographic region or sector.

Consistent with the intergovernmental consultation provisions of section 204 of the UMRA, EPA initiated consultations with the governmental entities affected by this rule prior to the proposal. A description of the consultations is found in the proposed rule (USEPA 2003a).

As required under section 205 of UMRA, EPA considered several regulatory alternatives to address PWSs at risk for contamination by microbial pathogens, specifically including *Cryptosporidium*. A detailed discussion of these alternatives can be found in section VI of the preamble and also in the Economic Analysis for the LT2ESWTR (USEPA 2005a).

Among the regulatory alternatives considered for the LT2ESWTR, as described in section VI, EPA believes the alternative in today's rule is the most cost-effective that achieves the objectives of the rule. The objective of the LT2ESWTR is to achieve feasible risk reduction from *Cryptosporidium* and other pathogens in vulnerable PWSs where current regulations do not provide sufficient protection.

EPA evaluated a less costly and less burdensome alternative. However, that alternative would provide no benefit to several thousand consumers who, under the alternative in today's final rule, will receive benefits that most likely exceed their costs, based on EPA estimates. This is illustrated in the LT2ESWTR Economic Analysis (USEPA 2005a). By failing to reduce risk for consumers where additional treatment requirements would be cost-effective, the less costly alternative does not appear to achieve the objectives of the LT2ESWTR.

The other alternatives considered by the Agency achieve the objectives of the rule, but are more costly, more burdensome, and potentially less cost-effective. The alternative in today's rule targets additional treatment requirements to PWSs with the highest vulnerability to *Cryptosporidium* and maximizes net benefits under a broad range of conditions (USEPA 2005a). Consequently, EPA has found the alternative in today's rule to be the most cost-effective among those that achieve the objectives of the rule.

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Thus, today's rule is not subject to the requirements of section 203 of UMRA. As described in section VII.C, EPA has certified that today's rule will not have a significant economic impact on a substantial number of small entities. Average annual expenditures for small PWSs to comply with the LT2ESWTR range from



\$8.1 to \$13.4 million at a 3% discount rate and \$8.3 to \$13.5 million at a 7% discount rate. While the treatment requirements of the LT2ESWTR apply uniformly to both small and large PWSs, large PWSs bear a majority of the total costs of compliance with the rule. This is due to the fact that large PWSs treat a majority of the drinking water that originates from surface water sources.

#### *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."

Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the regulation.

EPA has concluded that this final rule may have federalism implications, because it may impose substantial direct compliance costs on State or local governments, and the Federal government will not provide the funds necessary to pay those costs. The final rule may result in expenditures by State, local, and Tribal governments, in the aggregate of \$100 million or more in any one year. Costs are estimated to range from \$93 to \$133 million at a 3 percent discount rate and \$107 to \$150 million using a 7 percent discount rate based on the median distribution modeled from ICSSL and Information Collection Rule Cryptosporidium occurrence data sets. Accordingly, EPA provides the following federalism summary impact statement as required by section 6(b) of Executive Order 13132.

EPA consulted with representatives of State and local officials early in the process of developing today's rule to permit them to have meaningful and timely input into its development. As described in the proposed rule (USEPA 2003a), this consultation included State and local government representatives on the Stage 2 M-DBP Federal Advisory

Committee (whose recommendations were largely adopted in today's rule), the representatives from small local governments to the SBAR panel, a meeting with representatives from the Association of State Drinking Water Administrators, the National Governors' Association, the National Conference of State Legislatures, the International City/County Management Association, the National League of Cities, the County Executives of America, and health departments, consultation with Tribal governments at four meetings and through the Advisory Committee process, and comments from State and local governments on a pre-proposal draft of the LT2ESWTR.

Representatives of State and local officials were generally concerned with ensuring that drinking water regulations are adequately protective of public health and that any additional regulations achieve significant health benefits in return for required expenditures. They were specifically concerned with the burden of the rule, both in cost and technical complexity, giving flexibility to PWSs and States, balancing the control of microbial risks and DBP risks, funding for implementing new regulations, equal protection for small PWSs, and early implementation of monitoring by large PWSs.

EPA has concluded that the LT2ESWTR is needed to reduce the public health risk associated with *Cryptosporidium* in drinking water. As shown in section VI, estimated benefits for the rule are significantly higher than costs. Further, EPA believes that today's rule addresses many of the concerns expressed by representatives of government officials.

Under the LT2ESWTR, expenditures for additional treatment are targeted to the fraction of PWSs with the highest vulnerability to *Cryptosporidium*, thereby minimizing burden for the majority of PWSs, which will not be required to provide additional treatment. The microbial toolbox of compliance options will provide flexibility to PWSs in meeting additional treatment requirements, and States have the flexibility to award treatment credits based on site-specific demonstrations. Disinfection profiling provisions are intended to ensure that PWSs do not reduce microbial protection as they take steps to reduce exposures to DBPs.

The LT2ESWTR achieves equal public health protection for small PWSs. However, the use of *E. coli* monitoring by small PWSs as a screening analysis to determine the need for *Cryptosporidium* monitoring will

reduce monitoring costs for most small PWSs. Capital projects related to the rule will be eligible for funding from the Drinking Water State Revolving Fund, which includes specific funding for small communities. EPA is planning to support the initial monitoring by large PWSs that takes place within the first few years after rule promulgation. This will substantially reduce the burden on States associated with early implementation of monitoring requirements.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed rule from State and local officials.

As required by section 8(a) of Executive Order 13132, EPA included a certification from its Federalism Official stating that EPA had met the Executive Order's requirements in a meaningful and timely manner, when it sent the draft of this final rule to OMB for review pursuant to Executive Order 12866. A copy of this certification has been included in the public version of the official record for this final rule.

#### *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 9, 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." Under Executive Order 13175, EPA may not issue a regulation that has Tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by Tribal governments, or EPA consults with Tribal officials early in the process of developing the proposed regulation and develops a Tribal summary impact statement.

EPA has concluded that this final rule may have Tribal implications, because it may impose substantial direct compliance costs on Tribal governments, and the Federal government will not provide the funds necessary to pay those costs. EPA has identified 93 Tribal water systems serving a total population of 82,216 that may be subject to the LT2ESWTR. They will bear an estimated total annualized cost of \$207,105 at a 3 percent discount rate (\$309,583 at 7 percent) to

implement this rule. Estimated mean annualized cost per system ranges from \$1,944 to \$7,068 at a 3 percent discount rate (\$2,905 to \$10,681 at 7 percent) depending on PWS size (see Chapter 7 of the LT2ESWTR Economic Analysis (USEPA 2005a) for details).

Accordingly, EPA provides the following Tribal summary impact statement as required by section 5(b).

EPA consulted with Tribal officials early in the process of developing this regulation to permit them to have meaningful and timely input into its development. This consultation is described in the proposed rule (USEPA 2003a). Tribal officials were represented on the M-DBP Advisory Committee.

As required by section 7(a), EPA's Tribal Consultation Official has certified that the requirements of the Executive Order have been met in a meaningful and timely manner. A copy of this certification is included in the docket for this rule.

#### *G. Executive Order 13045: Protection of Children From Environmental Health 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 final rule is subject to the Executive Order because it is an economically significant regulatory action as defined in Executive Order 12866, and we believe that the environmental health or safety risk addressed by this action may have a disproportionate effect on children. Accordingly, we have evaluated the environmental health or safety effects of Cryptosporidium on children. The results of this evaluation are contained in Cryptosporidium: Risk for Infants and Children (USEPA 2001d), which is available in the public docket for this action, and are summarized in this section of the preamble. Further, while available information is not adequate to conduct a quantitative risk assessment specifically for children, EPA has assessed the risk associated with Cryptosporidium in drinking water for

the general population, including children. This assessment is described in the Economic Analysis for the LT2ESWTR (USEPA 2005a) and is summarized in section VI of this preamble.

#### *Children's Environmental Health*

Cryptosporidiosis in children is similar to adult disease (USEPA 2001d). Diarrhea is the most common symptom. Other common symptoms in otherwise healthy (i.e., immunocompetent) children include anorexia, vomiting, abdominal pain, fever, dehydration and weight loss.

The risk of illness and death due to cryptosporidiosis depends on several factors, including age, nutrition, exposure, genetic variability, disease and the immune status of the individual. Mortality resulting from diarrhea generally occurs at a greater rate among the very young and elderly (Gerba et al., 1996). During the 1993 Milwaukee drinking water outbreak, associated mortalities in children were reported. Also, children with laboratory-confirmed cryptosporidiosis were more likely to have an underlying disease that altered their immune status (Cicirello et al., 1997). In that study, the observed association between increasing age of children and increased numbers of laboratory-confirmed cryptosporidiosis suggested to the authors that the data are consistent with increased tap water consumption of older children. Asymptomatic infection can have a substantial effect on childhood growth (Bern et al., 2002).

Cryptosporidiosis appears to be more prevalent in populations, such as children, that may not have established immunity against the disease and may be in greater contact with environmentally contaminated surfaces (DuPont et al., 1995). In the United States, children aged one to four years are more likely than adults to have the disease. The most recent reported data on cryptosporidiosis shows the occurrence rate (for the year 1999) is higher in children ages one to four (3.03 incidence rate per 100,000) than in any adult age group (CDC, 2001). Evidence from blood sera antibodies collected from children during the 1993 Milwaukee outbreak suggest that children had greater levels of Cryptosporidium infection than predicted for the general community (based on the random-digit dialing telephone survey method) (McDonald et al., 2001).

Data indicate a lower incidence of cryptosporidiosis infection during the first year of life. This is attributed to breast-fed infants consuming less tap

water and, hence, having less exposure to Cryptosporidium, as well as the possibility that mothers confer short term immunity to their children. For example, in a survey of over 30,000 stool sample analyses from different patients in the United Kingdom, the one to five year age group suffered a much higher infection rate than individuals less than one year of age. For children under one year of age, those older than six months of age showed a higher rate of infection than individuals aged less than six months (Casemore, 1990). Similarly, in the U.S., of 2,566 reported Cryptosporidium illnesses in 1999, 525 occurred in ages one to four (incidence rate of 3.03 per 100,000) compared with 58 cases in infants under one year (incidence rate of 1.42 per 100,000) (CDC, 2001).

An infected child may spread the disease to other children or family members (Heijbel et al., 1987; Osewe et al., 1996). Millard et al. (1994) documented greater household secondary transmission of cryptosporidiosis from children than from adults to household and other close contacts. Children continued to shed oocysts for more than two weeks (mean 16.5 days) after diarrhea cessation (Tangerman et al., 1991).

While Cryptosporidium may have a disproportionate effect on children, available data are not adequate to distinctly assess the health risk for children resulting from Cryptosporidium-contaminated drinking water. In assessing risk to children when evaluating regulatory alternatives for the LT2ESWTR, EPA assumed the same risk for children as for the population as a whole.

Section VI of this preamble presents the regulatory alternatives that EPA evaluated for the proposed LT2ESWTR. Among the four alternatives the Agency considered, three involved a risk-targeting approach in which additional Cryptosporidium treatment requirements are based on source water monitoring results. A fourth alternative involved additional treatment requirements for all PWSs. The alternative requiring additional treatment by all PWSs was not selected because of concerns about feasibility and because it imposed costs but provided few benefits to PWSs with high quality source water (i.e., relatively low Cryptosporidium risk). The three risk-targeting alternatives were evaluated based on several factors, including costs, benefits, net benefits, feasibility of implementation, and other specific impacts (e.g., impacts on small PWSs or sensitive subpopulations).

The alternative that today's final rule establishes was recommended by the M-DBP Federal Advisory Committee and selected by EPA as the Preferred Regulatory Alternative because it was deemed feasible and provides significant public health benefits in terms of avoided illnesses and deaths. EPA's analysis of benefits and costs indicates that this alternative ranks highly among those evaluated with respect to maximizing net benefits, as shown in the LT2ESWTR Economic Analysis (USEPA 2005a). This document is available in the docket for this action.

The result of the LT2ESWTR will be a reduction in the risk of illness for the entire population, including children. Because available evidence indicates that children may be more vulnerable to cryptosporidiosis than the rest of the population, the LT2ESWTR may, therefore, result in greater risk reduction for children than for the general population.

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

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This determination is based on the following analysis.

The first consideration is whether the LT2ESWTR would adversely affect the supply of energy. The LT2ESWTR does not regulate power generation, either directly or indirectly. The public and private utilities that the LT2ESWTR regulates do not, as a rule, generate

power. Further, the cost increases borne by customers of water utilities as a result of the LT2ESWTR are a low percentage of the total cost of water, except for a very few small PWSs that might install advanced technologies and then need to spread that cost over a narrow customer base. Therefore, the customers that are power generation utilities are unlikely to face any significant effects as a result of the LT2ESWTR. In sum, the LT2ESWTR does not regulate the supply of energy, does not generally regulate the utilities that supply energy, and is unlikely to affect significantly the customer base of energy suppliers. Thus, the LT2ESWTR would not translate into adverse effects on the supply of energy.

The second consideration is whether the LT2ESWTR would adversely affect the distribution of energy. The LT2ESWTR does not regulate any aspect of energy distribution. The utilities that are regulated by the LT2ESWTR already have electrical service. As derived later in this section, the final rule is projected to increase peak electricity demand at water utilities by only 0.036 percent. Therefore, EPA estimates that the existing connections are adequate and that the LT2ESWTR has no discernable adverse effect on energy distribution.

The third consideration is whether the LT2ESWTR would adversely affect the use of energy. Because some drinking water utilities are expected to add treatment technologies that use electrical power, this potential impact is evaluated in more detail. The analyses that underlay the estimation of costs for the LT2ESWTR are national in scope and do not identify specific plants or utilities that may install treatment in response to the rule. As a result, no analysis of the effect on specific energy

suppliers is possible with the available data. The approach used to estimate the impact of energy use, therefore, focuses on national-level impacts. The analysis estimates the additional energy use due to the LT2ESWTR, and compares that to the national levels of power generation in terms of average and peak loads.

The first step in the analysis is to estimate the energy used by the technologies expected to be installed as a result of the LT2ESWTR. Energy use is not directly stated in Technologies and Costs for Control of Microbial Contaminants and Disinfection By-Products (USEPA 2003c), but the annual cost of energy for each technology addition or upgrade necessitated by the LT2ESWTR is provided. An estimate of plant-level energy use is derived by dividing the total energy cost per plant for a range of flows by an average national cost of electricity of \$0.070/kWh (USDOE 2004a). These calculations are shown in detail in Chapter 7 of the Economic Analysis for the LT2ESWTR (USEPA 2005a). The energy use per plant for each flow range and technology is then multiplied by the number of plants predicted to install each technology in a given flow range. The energy requirements for each flow range are then added to produce a national total. No electricity use is subtracted to account for the technologies that may be replaced by new technologies, resulting in a conservative estimate of the increase in energy use. Results of the analysis are shown in Table VII.H-1 for each of the modeled *Cryptosporidium* occurrence distributions. The incremental national annual energy usage is estimated at 165 million megawatt-hours (mWh) based on the modeled Information Collection Rule occurrence distribution.

**Table VII.H-1.— Total Increased Annual National Energy Usage Attributable to the LT2ESWTR**

Technology	Plants Selecting Technology	Total Annual Energy Required (kWh/yr)
	A	B
UV	1,038	100,829,791
O <sub>3</sub> (0.5 log)	27	20,617,993
O <sub>3</sub> (1.0 log)	18	18,827,749
O <sub>3</sub> (2.0 log)	14	16,245,643
ME/UF	37	7,343,320
Bag Filters	1,523	1,605,380
Cartridge Filters	209	82,022
Total	2,867	165,551,898

Source: The *LT2ESWTR Economic Analysis* (USEPA 2005a).

To determine if the additional energy required for PWSs to comply with the rule would have a significant adverse effect on the use of energy, the numbers in Table VII.H-1 are compared to the national production figures for electricity. According to the U.S. Department of Energy's Information Administration, electricity producers generated 3,848 million mW of electricity in 2003 (USDOE 2004b). Therefore, even using the highest assumed energy use for the LT2ESWTR, the rule when fully implemented would result in only a 0.004 percent increase in annual average energy use.

In addition to average energy use, the impact at times of peak power demand is important. To examine whether increased energy usage might significantly affect the capacity margins of energy suppliers, their peak season generating capacity reserve was compared to an estimate of peak incremental power demand by water utilities.

Both energy use and water use are highest in the summer months, so the most significant effects on supply would be seen then. In the year of 2003, U.S. generation capacity exceeded consumption by 15 percent, or approximately 160,00 mW (USDOE EIA 2004b). Assuming around-the-clock operation of water treatment plants, the total energy requirement can be divided by 8,760 hours per year to obtain an average power demand of 19 mW for the modeled Information Collection Rule occurrence distribution. A more

detailed derivation of this value is shown in Chapter 7 of the Economic Analysis for the LT2ESWTR (USEPA 2005a). Assuming that power demand is proportional to water flow through the plant, and that peak flow can be as high as twice the average daily flow during the summer months, about 38 mW could be needed for treatment technologies installed to comply with the LT2ESWTR. This is only 0.024 percent of the capacity margin available at peak use.

Although EPA recognizes that not all areas have a 15 percent capacity margin and that this margin varies across regions and through time, this analysis reflects the effect of the rule on national energy supply, distribution, or use. While certain areas, notably California, have experienced shortfalls in generating capacity in the recent past, a peak incremental power requirement of 38 mW nationwide is not likely to significantly change the energy supply, distribution, or use in any given area. Considering this analysis, EPA has concluded that LT2ESWTR is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

#### *1. National Technology Transfer and Advancement Act*

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act ("NTTAA") of 1995, 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 standard 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 involves technical standards. EPA has decided to use methods previously approved in 40 CFR 136.3 for the analysis of *E. coli* in surface waters. These include several voluntary consensus methods that were developed or adopted by the following organizations: American Public Health Association in Standard Methods for the Examination of Water and Wastewater, 20th, 19th, and 18th Editions, the American Society of Testing Materials in Annual Book of ASTM Standards—Water and Environmental Technology, and the Association of Analytical Chemists in Official Methods of Analysis of AOAC International, 16th Edition. EPA has concluded that these methods have the necessary sensitivity and specificity to meet the data quality objectives of the LT2ESWTR.

The Agency conducted a search to identify potentially applicable voluntary consensus standards for analysis of *Cryptosporidium*. However, we identified no such standards. Therefore,

EPA approves the use of the following methods for Cryptosporidium analysis: Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA, 2004, United States Environmental Protection Agency, EPA-815-R-05-002 or Method 1622: Cryptosporidium in Water by Filtration/IMS/FA, 2004, United States Environmental Protection Agency, EPA-815-R-05-001.

*J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations or Low-Income Populations*

Executive Order 12898 establishes a Federal policy for incorporating environmental justice into Federal agency missions by directing agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. EPA has considered environmental justice related issues concerning the potential impacts of this action and consulted with minority and low-income stakeholders. A description of this consultation can be found in the proposed rule (USEPA 2003a).

*K. Consultations With the Science Advisory Board, National Drinking Water Advisory Council, and the Secretary of Health and Human Services*

In accordance with Section 1412 (d) and (e) of the SDWA, the Agency did consult with the Science Advisory Board, the National Drinking Water Advisory Council (NDWAC), and the Secretary of Health and Human Services on today's rule.

EPA charged the SAB panel with reviewing the following aspects of the LT2ESWTR proposal:

- The analysis of Cryptosporidium occurrence;
- The pre- and post-LT2ESWTR Cryptosporidium risk assessment; and
- The treatment credits for the following four microbial toolbox components: raw water off-stream storage, pre-sedimentation, lime softening, and lower finished water turbidity.

EPA met with the SAB to discuss the LT2ESWTR on June 13, 2001 (Washington, DC), September 25-26, 2001 (teleconference), and December 10-12, 2001 (Los Angeles, CA). The SAB issued its final report for this

review, Disinfection Byproducts and Surface Water Treatment: A EPA Science Advisory Board Review of Certain Elements of the Stage 2 Regulatory Proposals, in May 2003.

Comments from the SAB were generally supportive of EPA's analysis of Cryptosporidium occurrence and the Cryptosporidium risk assessment for today's rule. The SAB recommended some additional quality assurance checks for statistical models, improved descriptions of underlying data sets, and better characterization of uncertainty for key parameters. USEPA 2005a and 2005b provide information on revisions EPA made in response to these comments.

SAB comments on microbial toolbox options and the Agency's responses to those comments are described in section III.D of this preamble. In general, the SAB supported treatment credit for two-stage softening, recommended additional performance criteria to award treatment credit to presedimentation basins, recommended modifications to the treatment credit for combined and individual filter performance, and opposed treatment credit for off-stream raw water storage.

EPA met with the NDWAC on November 8, 2001, in Washington, DC, to discuss the LT2ESWTR proposal. EPA specifically requested comments from the NDWAC on the regulatory approach taken in the proposed microbial toolbox (e.g., proposal of specific design and implementation criteria for treatment credits). The Council was generally supportive of EPA establishing criteria for awarding treatment credit to toolbox components, but recommended that EPA provide flexibility for States to address PWS specific situations. EPA believes that the demonstration of performance credit, described in section IV.D.9 provides this flexibility by allowing States to award higher or lower levels of treatment credit for microbial toolbox components based on site specific conditions.

EPA has consulted with the U.S. Department of Health and Human Services (HHS) regarding Cryptosporidium health effects and has provided HHS with today's rule.

*L. Plain Language*

Executive Order 12866 requires each agency to write its rules in plain language. Readable regulations help the

public find requirements quickly and understand them easily. They increase compliance, strengthen enforcement, and decrease mistakes, frustration, phone calls, appeals, and distrust of government. EPA made every effort to write this preamble to the final rule in as clear, concise, and unambiguous manner as possible.

*M. Analysis of the Likely Effect of Compliance With the LT2ESWTR on the Technical, Financial, and Managerial Capacity of Public Water Systems*

Section 1420(d)(3) of SDWA, as amended, requires that in promulgating an NPDWR, the Administrator shall include an analysis of the likely effect of compliance with the regulation on the technical, managerial, and financial capacity of public water systems. This analysis can be found in the LT2ESWTR Economic Analysis (USEPA 2005a). Analyses reflect only the impact of new or revised requirements, as established by the LT2ESWTR; the impacts of previously established requirements on system capacity are not considered.

EPA has defined overall water system capacity as the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Capacity encompasses three components: technical, managerial, and financial. Technical capacity is the physical and operational ability of a water system to meet SDWA requirements. This refers to the physical infrastructure of the water system, including the adequacy of source water and the adequacy of treatment, storage, and distribution infrastructure. It also refers to the ability of system personnel to adequately operate and maintain the system and to otherwise implement requisite technical knowledge. Managerial capacity is the ability of a water system to conduct its affairs to achieve and maintain compliance with SDWA requirements. Managerial capacity refers to the system's institutional and administrative capabilities. Financial capacity is a water system's ability to acquire and manage sufficient financial resources to allow the system to achieve and maintain compliance with SDWA requirements. Technical, managerial, and financial capacity can be assessed through key issues and questions, including the following:

**Technical Capacity**

Source water adequacy .....	Does the system have a reliable source of water with adequate quantity? Is the source generally of good quality and adequately protected?
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Infrastructure adequacy .....	Can the system provide water that meets SDWA standards? What is the condition of its infrastructure, including wells or source water intakes, treatment and storage facilities, and distribution systems? What is the infrastructure's life expectancy? Does the system have a capital improvement plan?
Technical knowledge and implementation.	Are the system's operators certified? Do the operators have sufficient knowledge of applicable standards? Can the operators effectively implement this technical knowledge? Do the operators understand the system's technical and operational characteristics? Does the system have an effective O&M program?
<b>Managerial Capacity</b>	
Ownership accountability .....	Are the owners clearly identified? Can they be held accountable for the system?
Staffing and organization .....	Are the operators and managers clearly identified? Is the system properly organized and staffed? Do personnel understand the management aspects of regulatory requirements and system operations? Do they have adequate expertise to manage water system operations (i.e., to conduct implementation, monitor for E. coli and Cryptosporidium, install treatment, and cover or disinfect reservoir discharge to meet the LT2ESWTR requirements)? Do personnel have the necessary licenses and certifications?
Effective external linkages .....	Does the system interact well with customers, regulators, and other entities? Is the system aware of available external resources, such as technical and financial assistance?
<b>Financial Capacity</b>	
Revenue sufficiency .....	Do revenues cover costs?
Creditworthiness .....	Is the system financially healthy? Does it have access to capital through public or private sources?
Fiscal management and controls .....	Are adequate books and records maintained? Are appropriate budgeting, accounting, and financial planning methods used? Does the system manage its revenues effectively?

After determining the type and number of systems to which each requirement applies, EPA evaluated the capacity impact of each rule requirement on large and small systems affected by that particular requirement. EPA determined that the overall impacts on small systems' technical, managerial, and financial capacity will vary. Monitoring and familiarization with new rules will have no significant effects on small systems, with the exception of moderate revenue constraints on those systems that need to implement monitoring for Cryptosporidium. The largest impacts will occur as a result of attaining 2.5 log treatment levels, covering uncovered reservoirs, or disinfecting reservoir discharge. EPA assumed that large systems will have the technical, financial, and managerial capacity to implement LT2ESWTR requirements based on the scale and complexity of their operations. The nature of their operations generally assures that they have access to the technical and managerial expertise to carry out all activities required by the LT2ESWTR. It is also generally easier for large systems to fund capital improvements than small systems, since costs can be spread over a larger customer base, making them smaller on a per-household basis.

To meet challenges posed by rule requirements, it is likely that some small and medium systems will need to develop or enhance linkages with technical and financial assistance providers (including State extension agents). Technical and financial assistance providers can help systems analyze their needs as well as the trade-offs between cost and health protection. In addition, they may be able to assist

systems in finding the funding necessary to install and operate new equipment. The Safe Drinking Water Act, as amended in 1996, established the Drinking Water State Revolving Fund to make funds available to drinking water systems to finance infrastructure improvements. EPA also works closely with organizations such as the National Rural Water Association and the American Water Works Association to develop technical and managerial tools, materials, and assistance to aid small systems.

#### N. 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 a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective March 6, 2006.

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protection, Reporting and recordkeeping requirements, Water supply.

Dated: December 15, 2005.

**Stephen L. Johnson,**  
Administrator.

■ For the reasons set forth in the preamble, title 40 chapter I of the Code of Federal Regulations is amended as follows:

**PART 9—[AMENDED]**

■ 1. The authority citation for part 9 continues to read as follows:

**Authority:** 7 U.S.C. 135 *et seq.*, 136-136g; 15 U.S.C. 2001, 2003, 2005, 2006, 2601-2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; Executive Order 11735, 38 FR 21243, 3 CFR, 1971-1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 *et seq.*, 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

■ 2. In § 9.1 the table is amended as follows:

■ a. Under the heading "National Primary Drinking Water Regulations Implementation" by adding entries in numerical order for "§ 141.706-141.710, 141.713-141.714, 141.716-141.723".

■ b. Under the heading "National Primary Drinking Water Regulations Implementation" by removing entries § 142.15(c), 142.15(c)(6)-(7) and adding entries in numerical order for "142.14(a)(9), 142.15(c)(6), and 142.16(n)" as follows:

**§ 9.1 OMB approvals under the Paperwork Reduction Act.**

\* \* \* \* \*

**List of Subjects**

**40 CFR Part 9**

Reporting and recordkeeping.

**40 CFR Part 141**

Environmental protection, Chemicals, Indians-lands, Incorporation by reference, Intergovernmental relations, Radiation protection, Reporting and recordkeeping requirements, Water supply.

**40 CFR Part 142**

Environmental protection, Administrative practice and procedure, Chemicals, Indians-lands, Radiation

40 CFR citation

OMB control No.

**National Primary Drinking Water Regulations**

141.706-141.710	2040-0266
141.713-141.714	2040-0266
141.716-141.723	2040-0266

**National Primary Drinking Water Regulations Implementation**

142.14(a)(9)	2040-0266
142.15(c)(6)	2040-0266
142.16(n)	2040-0266

## PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

■ 3. The authority citation for Part 141 continues to read as follows:

**Authority:** 42 U.S.C. 300f, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-4, 300j-9, and 300j-11.

■ 4. Section 141.2 is amended by adding, in alphabetical order, definitions for "Bag filters", "Bank filtration", "Cartridge filters", "Flowing stream", "Lake/reservoir", "Membrane filtration", "Plant intake", "Presedimentation", and "Two-stage lime softening", and revising the definition for "Uncovered finished water storage facility" to read as follows:

### § 141.2 Definitions.

\* \* \* \* \*

*Bag filters* are pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to outside.

*Bank filtration* is a water treatment process that uses a well to recover surface water that has naturally infiltrated into ground water through a river bed or bank(s). Infiltration is typically enhanced by the hydraulic gradient imposed by a nearby pumping water supply or other well(s).

\* \* \* \* \*

*Cartridge filters* are pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

\* \* \* \* \*

*Flowing stream* is a course of running water flowing in a definite channel.

\* \* \* \* \*

*Lake/reservoir* refers to a natural or man made basin or hollow on the Earth's surface in which water collects or is stored that may or may not have a current or single direction of flow.

\* \* \* \* \*

*Membrane filtration* is a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct

integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

\* \* \* \* \*

*Plant intake* refers to the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into the treatment plant.

\* \* \* \* \*

*Presedimentation* is a preliminary treatment process used to remove gravel, sand and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.

\* \* \* \* \*

*Two-stage lime softening* is a process in which chemical addition and hardness precipitation occur in each of two distinct unit clarification processes in series prior to filtration.

*Uncovered finished water storage facility* is a tank, reservoir, or other facility used to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection and is directly open to the atmosphere.

\* \* \* \* \*

■ 5. Subpart Q of part 141 is amended by adding § 141.211 to read as follows:

### § 141.211 Special notice for repeated failure to conduct monitoring of the source water for *Cryptosporidium* and for failure to determine bin classification or mean *Cryptosporidium* level.

(a) *When is the special notice for repeated failure to monitor to be given?* The owner or operator of a community or non-community water system that is required to monitor source water under § 141.701 must notify persons served by the water system that monitoring has not been completed as specified no later than 30 days after the system has failed to collect any 3 months of monitoring as specified in § 141.701(c). The notice must be repeated as specified in § 141.203(b).

(b) *When is the special notice for failure to determine bin classification or mean *Cryptosporidium* level to be given?* The owner or operator of a community or non-community water system that is required to determine a bin classification under § 141.710, or to determine mean *Cryptosporidium* level under § 141.712, must notify persons served by the water system that the determination has not been made as required no later than 30 days after the system has failed report the determination as specified in § 141.710(e) or § 141.712(a), respectively. The notice must be

repeated as specified in § 141.203(b). The notice is not required if the system is complying with a State-approved schedule to address the violation.

(c) *What is the form and manner of the special notice?* The form and manner of the public notice must follow the requirements for a Tier 2 public notice prescribed in § 141.203(c). The public notice must be presented as required in § 141.205(c).

(d) *What mandatory language must be contained in the special notice?* The notice must contain the following language, including the language necessary to fill in the blanks.

(1) The special notice for repeated failure to conduct monitoring must contain the following language:

We are required to monitor the source of your drinking water for *Cryptosporidium*. Results of the monitoring are to be used to determine whether water treatment at the (treatment plant name) is sufficient to adequately remove *Cryptosporidium* from your drinking water. We are required to complete this monitoring and make this determination by (required bin determination date). We "did not monitor or test" or "did not complete all monitoring or testing" on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, must be made to ensure adequate *Cryptosporidium* removal. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the deadline required, (date).

For more information, please call (name of water system contact) of (name of water system) at (phone number).

(2) The special notice for failure to determine bin classification or mean *Cryptosporidium* level must contain the following language:

We are required to monitor the source of your drinking water for *Cryptosporidium* in order to determine by (date) whether water treatment at the (treatment plant name) is sufficient to adequately remove *Cryptosporidium* from your drinking water. We have not made this determination by the required date. Our failure to do this may jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of (date). For more information, please call (name of water system contact) of (name of water system) at (phone number).

(3) Each special notice must also include a description of what the system is doing to correct the violation and when the system expects to return to compliance or resolve the situation.

■ 6. Appendix A to Subpart Q of part 141 is amended by adding entry number 10 under I.A. to read as follows:

### Subpart Q—Public Notification of Drinking Water Violations

APPENDIX A TO SUBPART Q OF PART 141—NPDWR VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE <sup>1</sup>

Contaminant	MCL/MRDL/TT violations <sup>2</sup>		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
I. Violations of National Primary Drinking Water Regulations (NPDWR): <sup>3</sup>				
A. Microbiological Contaminants				
10. LT2ESWTR violations .....	2	141.710–141.720	<sup>22</sup> 2, 3	141.701–141.705 and 141.708–141.709.

<sup>1</sup>Violations and other situations not listed in this table (e.g., failure to prepare Consumer Confidence Reports) do not require notice, unless otherwise determined by the primary agency. Primacy agencies may, at their option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as authorized under § 141.202(a) and § 141.203(a).

<sup>2</sup>MCL—Maximum contaminant level, MRDL—Maximum residual disinfectant level, TT—Treatment technique.

<sup>3</sup>The term Violations of National Primary Drinking Water Regulations (NPDWR) is used here to include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.

<sup>22</sup>Failure to collect three or more samples for *Cryptosporidium* analysis is a Tier 2 violation requiring special notice as specified in § 141.211. All other monitoring and testing procedure violations are Tier 3.

■ 7. Part 141 is amended by adding a new subpart W to read as follows:

**Subpart W—Enhanced Treatment for *Cryptosporidium***

**General Requirements**

Sec.

141.700 General requirements.

**Source Water Monitoring Requirements**

- 141.701 Source water monitoring.
- 141.702 Sampling schedules.
- 141.703 Sampling locations.
- 141.704 Analytical methods.
- 141.705 Approved laboratories.
- 141.706 Reporting source water monitoring results.
- 141.707 Grandfathering previously collected data.

**Disinfection Profiling and Benchmarking Requirements**

- 141.708 Requirements when making a significant change in disinfection practice.
- 141.709 Developing the disinfection profile and benchmark.

**Treatment Technique Requirements**

- 141.710 Bin classification for filtered systems.
- 141.711 Filtered system additional *Cryptosporidium* treatment requirements.
- 141.712 Unfiltered system *Cryptosporidium* treatment requirements.
- 141.713 Schedule for compliance with *Cryptosporidium* treatment requirements.
- 141.714 Requirements for uncovered finished water storage facilities.

**Requirements for Microbial Toolbox Components**

- 141.715 Microbial toolbox options for meeting *Cryptosporidium* treatment requirements.
- 141.716 Source toolbox components.

- 141.717 Pre-filtration treatment toolbox components.
- 141.718 Treatment performance toolbox components.
- 141.719 Additional filtration toolbox components.
- 141.720 Inactivation toolbox components.

**Reporting and Recordkeeping Requirements**

- 141.721 Reporting requirements.
- 141.722 Recordkeeping requirements.

**Requirements for Sanitary Surveys Performed by EPA**

- 141.723 Requirements to respond to significant deficiencies identified in sanitary surveys performed by EPA.

**Subpart W—Enhanced Treatment for *Cryptosporidium***

**General Requirements**

**§ 141.700 General requirements.**

(a) The requirements of this subpart W are national primary drinking water regulations. The regulations in this subpart establish or extend treatment technique requirements in lieu of maximum contaminant levels for *Cryptosporidium*. These requirements are in addition to requirements for filtration and disinfection in subparts H, P, and T of this part.

(b) *Applicability.* The requirements of this subpart apply to all subpart H systems, which are public water systems supplied by a surface water source and public water systems supplied by a ground water source under the direct influence of surface water.

(1) Wholesale systems, as defined in § 141.2, must comply with the requirements of this subpart based on the population of the largest system in the combined distribution system.

(2) The requirements of this subpart for filtered systems apply to systems required by National Primary Drinking Water Regulations to provide filtration treatment, whether or not the system is currently operating a filtration system.

(3) The requirements of this subpart for unfiltered systems apply only to unfiltered systems that timely met and continue to meet the filtration avoidance criteria in subparts H, P, and T of this part, as applicable.

(c) *Requirements.* Systems subject to this subpart must comply with the following requirements:

(1) Systems must conduct an initial and a second round of source water monitoring for each plant that treats a surface water or GWUDI source. This monitoring may include sampling for *Cryptosporidium*, *E. coli*, and turbidity as described in §§ 141.701 through 141.706, to determine what level, if any, of additional *Cryptosporidium* treatment they must provide.

(2) Systems that plan to make a significant change to their disinfection practice must develop disinfection profiles and calculate disinfection benchmarks, as described in §§ 141.708 through 141.709.

(3) Filtered systems must determine their *Cryptosporidium* treatment bin classification as described in § 141.710 and provide additional treatment for *Cryptosporidium*, if required, as described in § 141.711. All unfiltered systems must provide treatment for *Cryptosporidium* as described in § 141.712. Filtered and unfiltered systems must implement *Cryptosporidium* treatment according to the schedule in § 141.713.

(4) Systems with uncovered finished water storage facilities must comply with the requirements to cover the facility or treat the discharge from the facility as described in § 141.714.

(5) Systems required to provide additional treatment for *Cryptosporidium* must implement microbial toolbox options that are designed and operated as described in §§ 141.715 through 141.720.

(6) Systems must comply with the applicable recordkeeping and reporting requirements described in §§ 141.721 through 141.722.

(7) Systems must address significant deficiencies identified in sanitary surveys performed by EPA as described in § 141.723.

#### Source Water Monitoring Requirements

##### § 141.701 Source water monitoring.

(a) *Initial round of source water monitoring.* Systems must conduct the following monitoring on the schedule in paragraph (c) of this section unless they meet the monitoring exemption criteria in paragraph (d) of this section.

(1) Filtered systems serving at least 10,000 people must sample their source water for *Cryptosporidium*, *E. coli*, and turbidity at least monthly for 24 months.

(2) Unfiltered systems serving at least 10,000 people must sample their source water for *Cryptosporidium* at least monthly for 24 months.

(3)(i) Filtered systems serving fewer than 10,000 people must sample their source water for *E. coli* at least once every two weeks for 12 months.

(ii) A filtered system serving fewer than 10,000 people may avoid *E. coli* monitoring if the system notifies the State that it will monitor for *Cryptosporidium* as described in paragraph (a)(4) of this section. The system must notify the State no later than 3 months prior to the date the system is otherwise required to start *E. coli* monitoring under § 141.701(c).

(4) Filtered systems serving fewer than 10,000 people must sample their source water for *Cryptosporidium* at least twice per month for 12 months or at least monthly for 24 months if they meet one of the following, based on monitoring conducted under paragraph (a)(3) of this section:

(i) For systems using lake/reservoir sources, the annual mean *E. coli* concentration is greater than 10 *E. coli* 100 mL.

(ii) For systems using flowing stream sources, the annual mean *E. coli* concentration is greater than 50 *E. coli* 100 mL.

(iii) The system does not conduct *E. coli* monitoring as described in paragraph (a)(3) of this section.

(iv) Systems using ground water under the direct influence of surface water (GWUDI) must comply with the requirements of paragraph (a)(4) of this section based on the *E. coli* level that applies to the nearest surface water body. If no surface water body is nearby, the system must comply based on the requirements that apply to systems using lake/reservoir sources.

(5) For filtered systems serving fewer than 10,000 people, the State may

approve monitoring for an indicator other than *E. coli* under paragraph (a)(3) of this section. The State also may approve an alternative to the *E. coli* concentration in paragraph (a)(4)(i), (ii) or (iv) of this section to trigger *Cryptosporidium* monitoring. This approval by the State must be provided to the system in writing and must include the basis for the State's determination that the alternative indicator and/or trigger level will provide a more accurate identification of whether a system will exceed the Bin 1 *Cryptosporidium* level in § 141.710.

(6) Unfiltered systems serving fewer than 10,000 people must sample their source water for *Cryptosporidium* at least twice per month for 12 months or at least monthly for 24 months.

(7) Systems may sample more frequently than required under this section if the sampling frequency is evenly spaced throughout the monitoring period.

(b) *Second round of source water monitoring.* Systems must conduct a second round of source water monitoring that meets the requirements for monitoring parameters, frequency, and duration described in paragraph (a) of this section, unless they meet the monitoring exemption criteria in paragraph (d) of this section. Systems must conduct this monitoring on the schedule in paragraph (c) of this section.

(c) *Monitoring schedule.* Systems must begin the monitoring required in paragraphs (a) and (b) of this section no later than the month beginning with the date listed in this table:

SOURCE WATER MONITORING STARTING DATES TABLE

Systems that serve . . .	Must begin the first round of source water monitoring no later than the month beginning . . .	And must begin the second round of source water monitoring no later than the month beginning . . .
(1) At least 100,000 people .....	(i) October 1, 2006 .....	(ii) April 1, 2015.
(2) From 50,000 to 99,999 people .....	(i) April 1, 2007 .....	(ii) October 1, 2015.
(3) From 10,000 to 49,999 people .....	(i) April 1, 2008 .....	(ii) October 1, 2016.
(4) Fewer than 10,000 and monitor for <i>E. coli</i> <sup>a</sup>	(i) October 1, 2008 .....	(ii) October 1, 2017.
(5) Fewer than 10,000 and monitor for <i>Cryptosporidium</i> <sup>b</sup> .	(i) April 1, 2010 .....	(ii) April 1, 2019.

<sup>a</sup> Applies only to filtered systems.

<sup>b</sup> Applies to filtered systems that meet the conditions of paragraph (a)(4) of this section and unfiltered systems.

(d) *Monitoring avoidance.* (1) Filtered systems are not required to conduct source water monitoring under this subpart if the system will provide a total of at least 5.5-log of treatment for *Cryptosporidium*, equivalent to meeting the treatment requirements of Bin 4 in § 141.711.

(2) Unfiltered systems are not required to conduct source water monitoring under this subpart if the

system will provide a total of at least 3-log *Cryptosporidium* inactivation, equivalent to meeting the treatment requirements for unfiltered systems with a mean *Cryptosporidium* concentration of greater than 0.01 oocysts/L in § 141.712.

(3) If a system chooses to provide the level of treatment in paragraph (d)(1) or (2) of this section, as applicable, rather than start source water monitoring, the

system must notify the State in writing no later than the date the system is otherwise required to submit a sampling schedule for monitoring under § 141.702. Alternatively, a system may choose to stop sampling at any point after it has initiated monitoring if it notifies the State in writing that it will provide this level of treatment. Systems must install and operate technologies to provide this level of treatment by the

applicable treatment compliance date in § 141.713.

(e) *Plants operating only part of the year.* Systems with subpart H plants that operate for only part of the year must conduct source water monitoring in accordance with this subpart, but with the following modifications:

(1) Systems must sample their source water only during the months that the plant operates unless the State specifies another monitoring period based on plant operating practices.

(2) Systems with plants that operate less than six months per year and that monitor for *Cryptosporidium* must collect at least six *Cryptosporidium* samples per year during each of two years of monitoring. Samples must be evenly spaced throughout the period the plant operates.

(f)(1) *New sources.* A system that begins using a new source of surface water or GWUDI after the system is required to begin monitoring under paragraph (c) of this section must monitor the new source on a schedule the State approves. Source water monitoring must meet the requirements of this subpart. The system must also meet the bin classification and *Cryptosporidium* treatment requirements of §§ 141.710 and 141.711 or § 141.712, as applicable, for the new source on a schedule the State approves.

(2) The requirements of § 141.701(f) apply to subpart H systems that begin operation after the monitoring start date applicable to the system's size under paragraph (c) of this section.

(3) The system must begin a second round of source water monitoring no later than 6 years following initial bin classification under § 141.710 or determination of the mean *Cryptosporidium* level under § 141.712, as applicable.

(g) Failure to collect any source water sample required under this section in accordance with the sampling schedule, sampling location, analytical method, approved laboratory, and reporting requirements of §§ 141.702 through 141.706 is a monitoring violation.

(h) *Grandfathering monitoring data.* Systems may use (grandfather) monitoring data collected prior to the applicable monitoring start date in paragraph (c) of this section to meet the initial source water monitoring requirements in paragraph (a) of this section. Grandfathered data may substitute for an equivalent number of months at the end of the monitoring period. All data submitted under this paragraph must meet the requirements in § 141.707.

#### § 141.702 Sampling schedules.

(a) Systems required to conduct source water monitoring under § 141.701 must submit a sampling schedule that specifies the calendar dates when the system will collect each required sample.

(1) Systems must submit sampling schedules no later than 3 months prior to the applicable date listed in § 141.701(c) for each round of required monitoring.

(2)(i) Systems serving at least 10,000 people must submit their sampling schedule for the initial round of source water monitoring under § 141.701(a) to EPA electronically at <https://intranet.epa.gov/lt2/>.

(ii) If a system is unable to submit the sampling schedule electronically, the system may use an alternative approach for submitting the sampling schedule that EPA approves.

(3) Systems serving fewer than 10,000 people must submit their sampling schedules for the initial round of source water monitoring § 141.701(a) to the State.

(4) Systems must submit sampling schedules for the second round of source water monitoring § 141.701(b) to the State.

(5) If EPA or the State does not respond to a system regarding its sampling schedule, the system must sample at the reported schedule.

(b) Systems must collect samples within two days before or two days after the dates indicated in their sampling schedule (i.e., within a five-day period around the schedule date) unless one of the conditions of paragraph (b)(1) or (2) of this section applies.

(1) If an extreme condition or situation exists that may pose danger to the sample collector, or that cannot be avoided and causes the system to be unable to sample in the scheduled five-day period, the system must sample as close to the scheduled date as is feasible unless the State approves an alternative sampling date. The system must submit an explanation for the delayed sampling date to the State concurrent with the shipment of the sample to the laboratory.

(2)(i) If a system is unable to report a valid analytical result for a scheduled sampling date due to equipment failure, loss of or damage to the sample, failure to comply with the analytical method requirements, including the quality control requirements in § 141.704, or the failure of an approved laboratory to analyze the sample, then the system must collect a replacement sample.

(ii) The system must collect the replacement sample no later than 21 days after receiving information that an

analytical result cannot be reported for the scheduled date unless the system demonstrates that collecting a replacement sample within this time frame is not feasible or the State approves an alternative resampling date. The system must submit an explanation for the delayed sampling date to the State concurrent with the shipment of the sample to the laboratory.

(c) Systems that fail to meet the criteria of paragraph (b) of this section for any source water sample required under § 141.701 must revise their sampling schedules to add dates for collecting all missed samples. Systems must submit the revised schedule to the State for approval prior to when the system begins collecting the missed samples.

#### § 141.703 Sampling locations.

(a) Systems required to conduct source water monitoring under § 141.701 must collect samples for each plant that treats a surface water or GWUDI source. Where multiple plants draw water from the same influent, such as the same pipe or intake, the State may approve one set of monitoring results to be used to satisfy the requirements of § 141.701 for all plants.

(b)(1) Systems must collect source water samples prior to chemical treatment, such as coagulants, oxidants and disinfectants, unless the system meets the condition of paragraph (b)(2) of this section.

(2) The State may approve a system to collect a source water sample after chemical treatment. To grant this approval, the State must determine that collecting a sample prior to chemical treatment is not feasible for the system and that the chemical treatment is unlikely to have a significant adverse effect on the analysis of the sample.

(c) Systems that recycle filter backwash water must collect source water samples prior to the point of filter backwash water addition.

(d) *Bank filtration.* (1) Systems that receive *Cryptosporidium* treatment credit for bank filtration under § 141.173(b) or § 141.552(a), as applicable, must collect source water samples in the surface water prior to bank filtration.

(2) Systems that use bank filtration as pretreatment to a filtration plant must collect source water samples from the well (i.e., after bank filtration). Use of bank filtration during monitoring must be consistent with routine operational practice. Systems collecting samples after a bank filtration process may not receive treatment credit for the bank filtration under § 141.717(c).



(e) *Multiple sources.* Systems with plants that use multiple water sources, including multiple surface water sources and blended surface water and ground water sources, must collect samples as specified in paragraph (e)(1) or (2) of this section. The use of multiple sources during monitoring must be consistent with routine operational practice.

(1) If a sampling tap is available where the sources are combined prior to treatment, systems must collect samples from the tap.

(2) If a sampling tap where the sources are combined prior to treatment is not available, systems must collect samples at each source near the intake on the same day and must follow either paragraph (e)(2)(i) or (ii) of this section for sample analysis.

(i) Systems may composite samples from each source into one sample prior to analysis. The volume of sample from each source must be weighted according to the proportion of the source in the total plant flow at the time the sample is collected.

(ii) Systems may analyze samples from each source separately and calculate a weighted average of the analysis results for each sampling date. The weighted average must be calculated by multiplying the analysis result for each source by the fraction the source contributed to total plant flow at the time the sample was collected and then summing these values.

(f) *Additional Requirements.* Systems must submit a description of their sampling location(s) to the State at the same time as the sampling schedule required under § 141.702. This description must address the position of the sampling location in relation to the system's water source(s) and treatment processes, including pretreatment, points of chemical treatment, and filter backwash recycle. If the State does not respond to a system regarding sampling location(s), the system must sample at the reported location(s).

#### § 141.704 Analytical methods.

(a) *Cryptosporidium.* Systems must analyze for *Cryptosporidium* using *Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA*, 2005, United States Environmental Protection Agency, EPA-815-R-05-002 or *Method 1622: Cryptosporidium in Water by Filtration/IMS/FA*, 2005, United States Environmental Protection Agency, EPA-815-R-05-001, which are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of

these methods online from <http://www.epa.gov/safewater/disinfection/lt2> or from the United States Environmental Protection Agency, Office of Ground Water and Drinking Water, 1201 Constitution Ave., NW, Washington, DC 20460 (Telephone: 800-426-4791). You may inspect a copy at the Water Docket in the EPA Docket Center, 1301 Constitution Ave., NW, Washington, DC, (Telephone: 202-566-2426) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(1) Systems must analyze at least a 10 L sample or a packed pellet volume of at least 2 mL as generated by the methods listed in paragraph (a) of this section. Systems unable to process a 10 L sample must analyze as much sample volume as can be filtered by two filters approved by EPA for the methods listed in paragraph (a) of this section, up to a packed pellet volume of at least 2 mL.

(2)(i) Matrix spike (MS) samples, as required by the methods in paragraph (a) of this section, must be spiked and filtered by a laboratory approved for *Cryptosporidium* analysis under § 141.705.

(ii) If the volume of the MS sample is greater than 10 L, the system may filter all but 10 L of the MS sample in the field, and ship the filtered sample and the remaining 10 L of source water to the laboratory. In this case, the laboratory must spike the remaining 10 L of water and filter it through the filter used to collect the balance of the sample in the field.

(3) Flow cytometer-counted spiking suspensions must be used for MS samples and ongoing precision and recovery (OPR) samples.

(b) *E. coli.* Systems must use methods for enumeration of *E. coli* in source water approved in § 136.3(a) of this title.

(1) The time from sample collection to initiation of analysis may not exceed 30 hours unless the system meets the condition of paragraph (b)(2) of this section.

(2) The State may approve on a case-by-case basis the holding of an *E. coli* sample for up to 48 hours between sample collection and initiation of analysis if the State determines that analyzing an *E. coli* sample within 30 hours is not feasible. *E. coli* samples held between 30 to 48 hours must be analyzed by the Colilert reagent version of Standard Method 9223B as listed in § 136.3(a) of this title.

(3) Systems must maintain samples between 0°C and 10°C during storage and transit to the laboratory.

(c) *Turbidity.* Systems must use methods for turbidity measurement approved in § 141.74(a)(1).

#### § 141.705 Approved laboratories.

(a) *Cryptosporidium.* Systems must have *Cryptosporidium* samples analyzed by a laboratory that is approved under EPA's Laboratory Quality Assurance Evaluation Program for Analysis of *Cryptosporidium* in Water or a laboratory that has been certified for *Cryptosporidium* analysis by an equivalent State laboratory certification program.

(b) *E. coli.* Any laboratory certified by the EPA, the National Environmental Laboratory Accreditation Conference or the State for total coliform or fecal coliform analysis under § 141.74 is approved for *E. coli* analysis under this subpart when the laboratory uses the same technique for *E. coli* that the laboratory uses for § 141.74.

(c) *Turbidity.* Measurements of turbidity must be made by a party approved by the State.

#### § 141.706 Reporting source water monitoring results.

(a) Systems must report results from the source water monitoring required under § 141.701 no later than 10 days after the end of the first month following the month when the sample is collected.

(b)(1) All systems serving at least 10,000 people must report the results from the initial source water monitoring required under § 141.701(a) to EPA electronically at <https://intranet.epa.gov/lt2/>.

(2) If a system is unable to report monitoring results electronically, the system may use an alternative approach for reporting monitoring results that EPA approves.

(c) Systems serving fewer than 10,000 people must report results from the initial source water monitoring required under § 141.701(a) to the State.

(d) All systems must report results from the second round of source water monitoring required under § 141.701(b) to the State.

(e) Systems must report the applicable information in paragraphs (e)(1) and (2) of this section for the source water monitoring required under § 141.701.

(1) Systems must report the following data elements for each *Cryptosporidium* analysis:

Data element.

1. PWS ID.
2. Facility ID.

## Data element.

3. Sample collection date.
4. Sample type (field or matrix spike).
5. Sample volume filtered (L), to nearest ¼ L.
6. Was 100% of filtered volume examined.
7. Number of oocysts counted.

(i) For matrix spike samples, systems must also report the sample volume spiked and estimated number of oocysts spiked. These data are not required for field samples.

(ii) For samples in which less than 10 L is filtered or less than 100% of the sample volume is examined, systems must also report the number of filters used and the packed pellet volume.

(iii) For samples in which less than 100% of sample volume is examined, systems must also report the volume of resuspended concentrate and volume of this resuspension processed through immunomagnetic separation.

(2) Systems must report the following data elements for each *E. coli* analysis:

## Data element.

1. PWS ID.
2. Facility ID.
3. Sample collection date.
4. Analytical method number.
5. Method type.
6. Source type (flowing stream, lake/reservoir, GWUDI).
7. *E. coli*/100 mL.
8. Turbidity.<sup>1</sup>

<sup>1</sup> Systems serving fewer than 10,000 people that are not required to monitor for turbidity under § 141.701 are not required to report turbidity with their *E. coli* results.

#### § 141.707 Grandfathering previously collected data.

(a)(1) Systems may comply with the initial source water monitoring requirements of § 141.701(a) by grandfathering sample results collected before the system is required to begin monitoring (i.e., previously collected data). To be grandfathered, the sample results and analysis must meet the criteria in this section and the State must approve.

(2) A filtered system may grandfather *Cryptosporidium* samples to meet the requirements of § 141.701(a) when the system does not have corresponding *E. coli* and turbidity samples. A system that grandfathers *Cryptosporidium* samples without *E. coli* and turbidity samples is not required to collect *E. coli* and turbidity samples when the system completes the requirements for *Cryptosporidium* monitoring under § 141.701(a).

(b) *E. coli* sample analysis. The analysis of *E. coli* samples must meet the analytical method and approved laboratory requirements of §§ 141.704 through 141.705.

(c) *Cryptosporidium* sample analysis. The analysis of *Cryptosporidium* samples must meet the criteria in this paragraph.

(1) Laboratories analyzed *Cryptosporidium* samples using one of the analytical methods in paragraphs (c)(1)(i) through (vi) of this section, which are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of these methods on-line from the United States Environmental Protection Agency, Office of Ground Water and Drinking Water, 1201 Constitution Ave., NW, Washington, DC 20460 (Telephone: 800-426-4791). You may inspect a copy at the Water Docket in the EPA Docket Center, 1301 Constitution Ave., NW, Washington, DC, (Telephone: 202-566-2426) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(i) *Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA*, 2005, United States Environmental Protection Agency, EPA-815-R-05-002.

(ii) *Method 1622: Cryptosporidium in Water by Filtration/IMS/FA*, 2005, United States Environmental Protection Agency, EPA-815-R-05-001.

(iii) *Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA*, 2001, United States Environmental Protection Agency, EPA-821-R-01-025.

(iv) *Method 1622: Cryptosporidium in Water by Filtration/IMS/FA*, 2001, United States Environmental Protection Agency, EPA-821-R-01-026.

(v) *Method 1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA*, 1999, United States Environmental Protection Agency, EPA-821-R-99-006.

(vi) *Method 1622: Cryptosporidium in Water by Filtration/IMS/FA*, 1999, United States Environmental Protection Agency, EPA-821-R-99-001.

(2) For each *Cryptosporidium* sample, the laboratory analyzed at least 10 L of sample or at least 2 mL of packed pellet or as much volume as could be filtered by 2 filters that EPA approved for the methods listed in paragraph (c)(1) of this section.

(d) *Sampling location*. The sampling location must meet the conditions in § 141.703.

(e) *Sampling frequency*. *Cryptosporidium* samples were collected no less frequently than each calendar month on a regular schedule, beginning no earlier than January 1999. Sample collection intervals may vary for

the conditions specified in § 141.702(b)(1) and (2) if the system provides documentation of the condition when reporting monitoring results.

(1) The State may approve grandfathering of previously collected data where there are time gaps in the sampling frequency if the system conducts additional monitoring the State specifies to ensure that the data used to comply with the initial source water monitoring requirements of § 141.701(a) are seasonally representative and unbiased.

(2) Systems may grandfather previously collected data where the sampling frequency within each month varied. If the *Cryptosporidium* sampling frequency varied, systems must follow the monthly averaging procedure in § 141.710(b)(5) or § 141.712(a)(3), as applicable, when calculating the bin classification for filtered systems or the mean *Cryptosporidium* concentration for unfiltered systems.

(f) *Reporting monitoring results for grandfathering*. Systems that request to grandfather previously collected monitoring results must report the following information by the applicable dates listed in this paragraph. Systems serving at least 10,000 people must report this information to EPA unless the State approves reporting to the State rather than EPA. Systems serving fewer than 10,000 people must report this information to the State.

(1) Systems must report that they intend to submit previously collected monitoring results for grandfathering. This report must specify the number of previously collected results the system will submit, the dates of the first and last sample, and whether a system will conduct additional source water monitoring to meet the requirements of § 141.701(a). Systems must report this information no later than the date the sampling schedule under § 141.702 is required.

(2) Systems must report previously collected monitoring results for grandfathering, along with the associated documentation listed in paragraphs (f)(2)(i) through (iv) of this section, no later than two months after the applicable date listed in § 141.701(c).

(i) For each sample result, systems must report the applicable data elements in § 141.706.

(ii) Systems must certify that the reported monitoring results include all results the system generated during the time period beginning with the first reported result and ending with the final reported result. This applies to samples that were collected from the

sampling location specified for source water monitoring under this subpart, not spiked, and analyzed using the laboratory's routine process for the analytical methods listed in this section.

(iii) Systems must certify that the samples were representative of a plant's source water(s) and the source water(s) have not changed. Systems must report a description of the sampling location(s), which must address the position of the sampling location in relation to the system's water source(s) and treatment processes, including points of chemical addition and filter backwash recycle.

(iv) For *Cryptosporidium* samples, the laboratory or laboratories that analyzed the samples must provide a letter certifying that the quality control criteria specified in the methods listed in paragraph (c)(1) of this section were met for each sample batch associated with the reported results. Alternatively, the laboratory may provide bench sheets and sample examination report forms for each field, matrix spike, IPR, OPR, and method blank sample associated with the reported results.

(g) If the State determines that a previously collected data set submitted for grandfathering was generated during source water conditions that were not normal for the system, such as a drought, the State may disapprove the data. Alternatively, the State may approve the previously collected data if the system reports additional source water monitoring data, as determined by the State, to ensure that the data set used under § 141.710 or § 141.712 represents average source water conditions for the system.

(h) If a system submits previously collected data that fully meet the number of samples required for initial source water monitoring under § 141.701(a) and some of the data are rejected due to not meeting the requirements of this section, systems must conduct additional monitoring to replace rejected data on a schedule the State approves. Systems are not required to begin this additional monitoring until two months after notification that data have been rejected and additional monitoring is necessary.

#### Disinfection Profiling and Benchmarking Requirements

##### § 141.708 Requirements when making a significant change in disinfection practice.

(a) Following the completion of initial source water monitoring under § 141.701(a), a system that plans to make a significant change to its disinfection practice, as defined in paragraph (b) of this section, must

develop disinfection profiles and calculate disinfection benchmarks for *Giardia lamblia* and viruses as described in § 141.709. Prior to changing the disinfection practice, the system must notify the State and must include in this notice the information in paragraphs (a)(1) through (3) of this section.

(1) A completed disinfection profile and disinfection benchmark for *Giardia lamblia* and viruses as described in § 141.709.

(2) A description of the proposed change in disinfection practice.

(3) An analysis of how the proposed change will affect the current level of disinfection.

(b) Significant changes to disinfection practice are defined as follows:

(1) Changes to the point of disinfection;

(2) Changes to the disinfectant(s) used in the treatment plant;

(3) Changes to the disinfection process; or

(4) Any other modification identified by the State as a significant change to disinfection practice.

##### § 141.709 Developing the disinfection profile and benchmark.

(a) Systems required to develop disinfection profiles under § 141.708 must follow the requirements of this section. Systems must monitor at least weekly for a period of 12 consecutive months to determine the total log inactivation for *Giardia lamblia* and viruses. If systems monitor more frequently, the monitoring frequency must be evenly spaced. Systems that operate for fewer than 12 months per year must monitor weekly during the period of operation. Systems must determine log inactivation for *Giardia lamblia* through the entire plant, based on CT<sub>99.9</sub> values in Tables 1.1 through 1.6, 2.1 and 3.1 of § 141.74(b) as applicable. Systems must determine log inactivation for viruses through the entire treatment plant based on a protocol approved by the State.

(b) Systems with a single point of disinfectant application prior to the entrance to the distribution system must conduct the monitoring in paragraphs (b)(1) through (4) of this section. Systems with more than one point of disinfectant application must conduct the monitoring in paragraphs (b)(1) through (4) of this section for each disinfection segment. Systems must monitor the parameters necessary to determine the total inactivation ratio, using analytical methods in § 141.74(a).

(1) For systems using a disinfectant other than UV, the temperature of the disinfected water must be measured at

each residual disinfectant concentration sampling point during peak hourly flow or at an alternative location approved by the State.

(2) For systems using chlorine, the pH of the disinfected water must be measured at each chlorine residual disinfectant concentration sampling point during peak hourly flow or at an alternative location approved by the State.

(3) The disinfectant contact time(s) (t) must be determined during peak hourly flow.

(4) The residual disinfectant concentration(s) (C) of the water before or at the first customer and prior to each additional point of disinfectant application must be measured during peak hourly flow.

(c) In lieu of conducting new monitoring under paragraph (b) of this section, systems may elect to meet the requirements of paragraphs (c)(1) or (2) of this section.

(1) Systems that have at least one year of existing data that are substantially equivalent to data collected under the provisions of paragraph (b) of this section may use these data to develop disinfection profiles as specified in this section if the system has neither made a significant change to its treatment practice nor changed sources since the data were collected. Systems may develop disinfection profiles using up to three years of existing data.

(2) Systems may use disinfection profile(s) developed under § 141.172 or §§ 141.530 through 141.536 in lieu of developing a new profile if the system has neither made a significant change to its treatment practice nor changed sources since the profile was developed. Systems that have not developed a virus profile under § 141.172 or §§ 141.530 through 141.536 must develop a virus profile using the same monitoring data on which the *Giardia lamblia* profile is based.

(d) Systems must calculate the total inactivation ratio for *Giardia lamblia* as specified in paragraphs (d)(1) through (3) of this section.

(1) Systems using only one point of disinfectant application may determine the total inactivation ratio for the disinfection segment based on either of the methods in paragraph (d)(1)(i) or (ii) of this section.

(i) Determine one inactivation ratio (CT<sub>calc</sub>/CT<sub>99.9</sub>) before or at the first customer during peak hourly flow.

(ii) Determine successive CT<sub>calc</sub>/CT<sub>99.9</sub> values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. The system must

calculate the total inactivation ratio by determining (CT<sub>calc</sub>/CT<sub>99.9</sub>) for each sequence and then adding the (CT<sub>calc</sub>/CT<sub>99.9</sub>) values together to determine (Σ (CT<sub>calc</sub>/CT<sub>99.9</sub>)).

(2) Systems using more than one point of disinfectant application before the first customer must determine the CT value of each disinfection segment immediately prior to the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow. The (CT<sub>calc</sub>/CT<sub>99.9</sub>) value of each segment and (Σ (CT<sub>calc</sub>/CT<sub>99.9</sub>)) must be calculated using the method in paragraph (d)(1)(ii) of this section.

(3) The system must determine the total logs of inactivation by multiplying the value calculated in paragraph (d)(1) or (d)(2) of this section by 3.0.

(4) Systems must calculate the log of inactivation for viruses using a protocol approved by the State.

(e) Systems must use the procedures specified in paragraphs (e)(1) and (2) of this section to calculate a disinfection benchmark.

(1) For each year of profiling data collected and calculated under paragraphs (a) through (d) of this section, systems must determine the lowest mean monthly level of both *Giardia lamblia* and virus inactivation. Systems must determine the mean *Giardia lamblia* and virus inactivation

for each calendar month for each year of profiling data by dividing the sum of daily or weekly *Giardia lamblia* and virus log inactivation by the number of values calculated for that month.

(2) The disinfection benchmark is the lowest monthly mean value (for systems with one year of profiling data) or the mean of the lowest monthly mean values (for systems with more than one year of profiling data) of *Giardia lamblia* and virus log inactivation in each year of profiling data.

#### Treatment Technique Requirements

##### § 141.710 Bin classification for filtered systems.

(a) Following completion of the initial round of source water monitoring required under § 141.701(a), filtered systems must calculate an initial *Cryptosporidium* bin concentration for each plant for which monitoring was required. Calculation of the bin concentration must use the *Cryptosporidium* results reported under § 141.701(a) and must follow the procedures in paragraphs (b)(1) through (5) of this section.

(b)(1) For systems that collect a total of at least 48 samples, the bin concentration is equal to the arithmetic mean of all sample concentrations.

(2) For systems that collect a total of at least 24 samples, but not more than 47 samples, the bin concentration is

equal to the highest arithmetic mean of all sample concentrations in any 12 consecutive months during which *Cryptosporidium* samples were collected.

(3) For systems that serve fewer than 10,000 people and monitor for *Cryptosporidium* for only one year (i.e., collect 24 samples in 12 months), the bin concentration is equal to the arithmetic mean of all sample concentrations.

(4) For systems with plants operating only part of the year that monitor fewer than 12 months per year under § 141.701(e), the bin concentration is equal to the highest arithmetic mean of all sample concentrations during any year of *Cryptosporidium* monitoring.

(5) If the monthly *Cryptosporidium* sampling frequency varies, systems must first calculate a monthly average for each month of monitoring. Systems must then use these monthly average concentrations, rather than individual sample concentrations, in the applicable calculation for bin classification in paragraphs (b)(1) through (4) of this section.

(c) Filtered systems must determine their initial bin classification from the following table and using the *Cryptosporidium* bin concentration calculated under paragraphs (a)–(b) of this section:

BIN CLASSIFICATION TABLE FOR FILTERED SYSTEMS

For systems that are:	With a <i>Cryptosporidium</i> bin concentration of . . . <sup>1</sup>	The bin classification is . . .
. . . required to monitor for <i>Cryptosporidium</i> under § 141.701.	<i>Cryptosporidium</i> <0.075 oocyst/L .....	Bin 1.
	0.075 oocysts/L ≤ <i>Cryptosporidium</i> <1.0 oocysts/L	Bin 2.
	1.0 oocysts/L ≤ <i>Cryptosporidium</i> <3.0 oocysts/L ...	Bin 3.
	<i>Cryptosporidium</i> ≥ 3.0 oocysts/L .....	Bin 4.
. . . serving fewer than 10,000 people and NOT required to monitor for <i>Cryptosporidium</i> under § 141.701(a)(4).	NA .....	Bin 1.

<sup>1</sup> Based on calculations in paragraph (a) or (d) of this section, as applicable.

(d) Following completion of the second round of source water monitoring required under § 141.701(b), filtered systems must recalculate their *Cryptosporidium* bin concentration using the *Cryptosporidium* results reported under § 141.701(b) and following the procedures in paragraphs (b)(1) through (4) of this section. Systems must then redetermine their bin classification using this bin concentration and the table in paragraph (c) of this section.

(e)(1) Filtered systems must report their initial bin classification under paragraph (c) of this section to the State

for approval no later than 6 months after the system is required to complete initial source water monitoring based on the schedule in § 141.701(c).

(2) Systems must report their bin classification under paragraph (d) of this section to the State for approval no later than 6 months after the system is required to complete the second round of source water monitoring based on the schedule in § 141.701(c).

(3) The bin classification report to the State must include a summary of source water monitoring data and the calculation procedure used to determine bin classification.

(f) Failure to comply with the conditions of paragraph (e) of this section is a violation of the treatment technique requirement.

##### § 141.711 Filtered system additional *Cryptosporidium* treatment requirements.

(a) Filtered systems must provide the level of additional treatment for *Cryptosporidium* specified in this paragraph based on their bin classification as determined under § 141.710 and according to the schedule in § 141.713.



If the system bin classification is . . .	And the system uses the following filtration treatment in full compliance with subparts H, P, and T of this part (as applicable), then the additional <i>Cryptosporidium</i> treatment requirements are . . .			
	Conventional filtration treatment (including softening)	Direct filtration	Slow sand or diatomaceous earth filtration	Alternative filtration technologies
Bin 1 . . . . .	No additional treatment . . . . .	No additional treatment . . . . .	No additional treatment . . . . .	No additional treatment . . . . .
Bin 2 . . . . .	1-log treatment . . . . .	1.5-log treatment . . . . .	1-log treatment . . . . .	(1)
Bin 3 . . . . .	2-log treatment . . . . .	2.5-log treatment . . . . .	2-log treatment . . . . .	(2)
Bin 4 . . . . .	2.5-log treatment . . . . .	3-log treatment . . . . .	2.5-log treatment . . . . .	(3)

<sup>1</sup> As determined by the State such that the total *Cryptosporidium* removal and inactivation is at least 4.0-log.

<sup>2</sup> As determined by the State such that the total *Cryptosporidium* removal and inactivation is at least 5.0-log.

<sup>3</sup> As determined by the State such that the total *Cryptosporidium* removal and inactivation is at least 5.5-log.

(b)(1) Filtered systems must use one or more of the treatment and management options listed in § 141.715, termed the microbial toolbox, to comply with the additional *Cryptosporidium* treatment required in paragraph (a) of this section.

(2) Systems classified in Bin 3 and Bin 4 must achieve at least 1-log of the additional *Cryptosporidium* treatment required under paragraph (a) of this section using either one or a combination of the following: bag filters, bank filtration, cartridge filters, chlorine dioxide, membranes, ozone, or UV, as described in §§ 141.716 through 141.720.

(c) Failure by a system in any month to achieve treatment credit by meeting criteria in §§ 141.716 through 141.720 for microbial toolbox options that is at least equal to the level of treatment required in paragraph (a) of this section is a violation of the treatment technique requirement.

(d) If the State determines during a sanitary survey or an equivalent source water assessment that after a system completed the monitoring conducted under § 141.701(a) or § 141.701(b), significant changes occurred in the system's watershed that could lead to increased contamination of the source water by *Cryptosporidium*, the system must take actions specified by the State to address the contamination. These actions may include additional source water monitoring and/or implementing microbial toolbox options listed in § 141.715.

**§ 141.712 Unfiltered system *Cryptosporidium* treatment requirements.**

(a) *Determination of mean *Cryptosporidium* level.* (1) Following completion of the initial source water monitoring required under § 141.701(a), unfiltered systems must calculate the arithmetic mean of all *Cryptosporidium* sample concentrations reported under § 141.701(a). Systems must report this value to the State for approval no later than 6 months after the month the system is required to complete initial

source water monitoring based on the schedule in § 141.701(c).

(2) Following completion of the second round of source water monitoring required under § 141.701(b), unfiltered systems must calculate the arithmetic mean of all *Cryptosporidium* sample concentrations reported under § 141.701(b). Systems must report this value to the State for approval no later than 6 months after the month the system is required to complete the second round of source water monitoring based on the schedule in § 141.701(c).

(3) If the monthly *Cryptosporidium* sampling frequency varies, systems must first calculate a monthly average for each month of monitoring. Systems must then use these monthly average concentrations, rather than individual sample concentrations, in the calculation of the mean *Cryptosporidium* level in paragraphs (a)(1) or (2) of this section.

(4) The report to the State of the mean *Cryptosporidium* levels calculated under paragraphs (a)(1) and (2) of this section must include a summary of the source water monitoring data used for the calculation.

(5) Failure to comply with the conditions of paragraph (a) of this section is a violation of the treatment technique requirement.

(b) *Cryptosporidium inactivation requirements.* Unfiltered systems must provide the level of inactivation for *Cryptosporidium* specified in this paragraph, based on their mean *Cryptosporidium* levels as determined under paragraph (a) of this section and according to the schedule in § 141.713.

(1) Unfiltered systems with a mean *Cryptosporidium* level of 0.01 oocysts/L or less must provide at least 2-log *Cryptosporidium* inactivation.

(2) Unfiltered systems with a mean *Cryptosporidium* level of greater than 0.01 oocysts/L must provide at least 3-log *Cryptosporidium* inactivation.

(c) *Inactivation treatment technology requirements.* Unfiltered systems must use chlorine dioxide, ozone, or UV as

described in § 141.720 to meet the *Cryptosporidium* inactivation requirements of this section.

(1) Systems that use chlorine dioxide or ozone and fail to achieve the *Cryptosporidium* inactivation required in paragraph (b) of this section on more than one day in the calendar month are in violation of the treatment technique requirement.

(2) Systems that use UV light and fail to achieve the *Cryptosporidium* inactivation required in paragraph (b) of this section by meeting the criteria in § 141.720(d)(3)(ii) are in violation of the treatment technique requirement.

(d) *Use of two disinfectants.* Unfiltered systems must meet the combined *Cryptosporidium* inactivation requirements of this section and *Giardia lamblia* and virus inactivation requirements of § 141.72(a) using a minimum of two disinfectants, and each of two disinfectants must separately achieve the total inactivation required for either *Cryptosporidium*, *Giardia lamblia*, or viruses.

**§ 141.713 Schedule for compliance with *Cryptosporidium* treatment requirements.**

(a) Following initial bin classification under § 141.710(c), filtered systems must provide the level of treatment for *Cryptosporidium* required under § 141.711 according to the schedule in paragraph (c) of this section.

(b) Following initial determination of the mean *Cryptosporidium* level under § 141.712(a)(1), unfiltered systems must provide the level of treatment for *Cryptosporidium* required under § 141.712 according to the schedule in paragraph (c) of this section.

(c) *Cryptosporidium treatment compliance dates.*



**CRYPTOSPORIDIUM TREATMENT COMPLIANCE DATES TABLE**

Systems that serve . . .	Must comply with <i>Cryptosporidium</i> treatment requirements no later than . . . <sup>a</sup>
(1) At least 100,000 people.	(i) April 1, 2012.
(2) From 50,000 to 99,999 people.	(i) October 1, 2012.
(3) From 10,000 to 49,999 people.	(i) October 1, 2013.
(4) Fewer than 10,000 people.	(i) October 1, 2014.

<sup>a</sup> States may allow up to an additional two years for complying with the treatment requirement for systems making capital improvements.

(d) If the bin classification for a filtered system changes following the second round of source water monitoring, as determined under § 141.710(d), the system must provide the level of treatment for *Cryptosporidium* required under § 141.711 on a schedule the State approves.

(e) If the mean *Cryptosporidium* level for an unfiltered system changes

following the second round of monitoring, as determined under § 141.712(a)(2), and if the system must provide a different level of *Cryptosporidium* treatment under § 141.712 due to this change, the system must meet this treatment requirement on a schedule the State approves.

**§ 141.714 Requirements for uncovered finished water storage facilities.**

(a) Systems using uncovered finished water storage facilities must comply with the conditions of this section.

(b) Systems must notify the State of the use of each uncovered finished water storage facility no later than April 1, 2008.

(c) Systems must meet the conditions of paragraph (c)(1) or (2) of this section for each uncovered finished water storage facility or be in compliance with a State-approved schedule to meet these conditions no later than April 1, 2009.

(1) Systems must cover any uncovered finished water storage facility.

(2) Systems must treat the discharge from the uncovered finished water storage facility to the distribution system to achieve inactivation and/or

removal of at least 4-log virus, 3-log *Giardia lamblia*, and 2-log *Cryptosporidium* using a protocol approved by the State.

(d) Failure to comply with the requirements of this section is a violation of the treatment technique requirement.

**Requirements for Microbial Toolbox Components**

**§ 141.715 Microbial toolbox options for meeting *Cryptosporidium* treatment requirements.**

(a)(1) Systems receive the treatment credits listed in the table in paragraph (b) of this section by meeting the conditions for microbial toolbox options described in §§ 141.716 through 141.720. Systems apply these treatment credits to meet the treatment requirements in § 141.711 or § 141.712, as applicable.

(2) Unfiltered systems are eligible for treatment credits for the microbial toolbox options described in § 141.720 only.

(b) The following table summarizes options in the microbial toolbox:

**MICROBIAL TOOLBOX SUMMARY TABLE: OPTIONS, TREATMENT CREDITS AND CRITERIA**

Toolbox Option	<i>Cryptosporidium</i> treatment credit with design and implementation criteria
<b>Source Protection and Management Toolbox Options</b>	
(1) Watershed control program . . . . .	0.5-log credit for State-approved program comprising required elements, annual program status report to State, and regular watershed survey. Unfiltered systems are not eligible for credit. Specific criteria are in § 141.716(a).
(2) Alternative source/intake management . . . . .	No prescribed credit. Systems may conduct simultaneous monitoring for treatment bin classification at alternative intake locations or under alternative intake management strategies. Specific criteria are in § 141.716(b).
<b>Pre Filtration Toolbox Options</b>	
(3) Presedimentation basin with coagulation . . . . .	0.5-log credit during any month that presedimentation basins achieve a monthly mean reduction of 0.5-log or greater in turbidity or alternative State-approved performance criteria. To be eligible, basins must be operated continuously with coagulant addition and all plant flow must pass through basins. Specific criteria are in § 141.717(a).
(4) Two-stage lime softening . . . . .	0.5-log credit for two-stage softening where chemical addition and hardness precipitation occur in both stages. All plant flow must pass through both stages. Single-stage softening is credited as equivalent to conventional treatment. Specific criteria are in § 141.717(b).
(5) Bank filtration . . . . .	0.5-log credit for 25-foot setback; 1.0-log credit for 50-foot setback; aquifer must be unconsolidated sand containing at least 10 percent fines; average turbidity in wells must be less than 1 NTU. Systems using wells followed by filtration when conducting source water monitoring must sample the well to determine bin classification and are not eligible for additional credit. Specific criteria are in § 141.717(c).
<b>Treatment Performance Toolbox Options</b>	
(6) Combined filter performance . . . . .	0.5-log credit for combined filter effluent turbidity less than or equal to 0.15 NTU in at least 95 percent of measurements each month. Specific criteria are in § 141.718(a).
(7) Individual filter performance . . . . .	0.5-log credit (in addition to 0.5-log combined filter performance credit) if individual filter effluent turbidity is less than or equal to 0.15 NTU in at least 95 percent of samples each month in each filter and is never greater than 0.3 NTU in two consecutive measurements in any filter. Specific criteria are in § 141.718(b).
(8) Demonstration of performance . . . . .	Credit awarded to unit process or treatment train based on a demonstration to the State with a State-approved protocol. Specific criteria are in § 141.718(c).

MICROBIAL TOOLBOX SUMMARY TABLE: OPTIONS, TREATMENT CREDITS AND CRITERIA—Continued

Toolbox Option	<i>Cryptosporidium</i> treatment credit with design and implementation criteria
<b>Additional Filtration Toolbox Options</b>	
(9) Bag or cartridge filters (individual filters) .....	Up to 2-log credit based on the removal efficiency demonstrated during challenge testing with a 1.0-log factor of safety. Specific criteria are in § 141.719(a).
(10) Bag or cartridge filters (in series) .....	Up to 2.5-log credit based on the removal efficiency demonstrated during challenge testing with a 0.5-log factor of safety. Specific criteria are in § 141.719(a).
(11) Membrane filtration .....	Log credit equivalent to removal efficiency demonstrated in challenge test for device if supported by direct integrity testing. Specific criteria are in § 141.719(b).
(12) Second stage filtration .....	0.5-log credit for second separate granular media filtration stage if treatment train includes coagulation prior to first filter. Specific criteria are in § 141.719(c).
(13) Slow sand filters .....	2.5-log credit as a secondary filtration step; 3.0-log credit as a primary filtration process. No prior chlorination for either option. Specific criteria are in § 141.719(d).
<b>Inactivation Toolbox Options</b>	
(14) Chlorine dioxide .....	Log credit based on measured CT in relation to CT table. Specific criteria in § 141.720(b)
(15) Ozone .....	Log credit based on measured CT in relation to CT table. Specific criteria in § 141.720(b).
(16) UV .....	Log credit based on validated UV dose in relation to UV dose table; reactor validation testing required to establish UV dose and associated operating conditions. Specific criteria in § 141.720(d).

#### § 141.716 Source toolbox components.

(a) *Watershed control program.*  
Systems receive 0.5-log *Cryptosporidium* treatment credit for implementing a watershed control program that meets the requirements of this section.

(1) Systems that intend to apply for the watershed control program credit must notify the State of this intent no later than two years prior to the treatment compliance date applicable to the system in § 141.713.

(2) Systems must submit to the State a proposed watershed control plan no later than one year before the applicable treatment compliance date in § 141.713. The State must approve the watershed control plan for the system to receive watershed control program treatment credit. The watershed control plan must include the elements in paragraphs (a)(2)(i) through (iv) of this section.

(i) Identification of an "area of influence" outside of which the likelihood of *Cryptosporidium* or fecal contamination affecting the treatment plant intake is not significant. This is the area to be evaluated in future watershed surveys under paragraph (a)(5)(ii) of this section.

(ii) Identification of both potential and actual sources of *Cryptosporidium* contamination and an assessment of the relative impact of these sources on the system's source water quality.

(iii) An analysis of the effectiveness and feasibility of control measures that could reduce *Cryptosporidium* loading from sources of contamination to the system's source water.

(iv) A statement of goals and specific actions the system will undertake to reduce source water *Cryptosporidium* levels. The plan must explain how the

actions are expected to contribute to specific goals, identify watershed partners and their roles, identify resource requirements and commitments, and include a schedule for plan implementation with deadlines for completing specific actions identified in the plan.

(3) Systems with existing watershed control programs (*i.e.*, programs in place on January 5, 2006) are eligible to seek this credit. Their watershed control plans must meet the criteria in paragraph (a)(2) of this section and must specify ongoing and future actions that will reduce source water *Cryptosporidium* levels.

(4) If the State does not respond to a system regarding approval of a watershed control plan submitted under this section and the system meets the other requirements of this section, the watershed control program will be considered approved and 0.5 log *Cryptosporidium* treatment credit will be awarded unless and until the State subsequently withdraws such approval.

(5) Systems must complete the actions in paragraphs (a)(5)(i) through (iii) of this section to maintain the 0.5-log credit.

(i) Submit an annual watershed control program status report to the State. The annual watershed control program status report must describe the system's implementation of the approved plan and assess the adequacy of the plan to meet its goals. It must explain how the system is addressing any shortcomings in plan implementation, including those previously identified by the State or as the result of the watershed survey conducted under paragraph (a)(5)(ii) of

this section. It must also describe any significant changes that have occurred in the watershed since the last watershed sanitary survey. If a system determines during implementation that making a significant change to its approved watershed control program is necessary, the system must notify the State prior to making any such changes. If any change is likely to reduce the level of source water protection, the system must also list in its notification the actions the system will take to mitigate this effect.

(ii) Undergo a watershed sanitary survey every three years for community water systems and every five years for noncommunity water systems and submit the survey report to the State. The survey must be conducted according to State guidelines and by persons the State approves.

(A) The watershed sanitary survey must meet the following criteria: encompass the region identified in the State-approved watershed control plan as the area of influence; assess the implementation of actions to reduce source water *Cryptosporidium* levels; and identify any significant new sources of *Cryptosporidium*.

(B) If the State determines that significant changes may have occurred in the watershed since the previous watershed sanitary survey, systems must undergo another watershed sanitary survey by a date the State requires, which may be earlier than the regular date in paragraph (a)(5)(ii) of this section.

(iii) The system must make the watershed control plan, annual status reports, and watershed sanitary survey reports available to the public upon

request. These documents must be in a plain language style and include criteria by which to evaluate the success of the program in achieving plan goals. The State may approve systems to withhold from the public portions of the annual status report, watershed control plan, and watershed sanitary survey based on water supply security considerations.

(6) If the State determines that a system is not carrying out the approved watershed control plan, the State may withdraw the watershed control program treatment credit.

(b) *Alternative source.* (1) A system may conduct source water monitoring that reflects a different intake location (either in the same source or for an alternate source) or a different procedure for the timing or level of withdrawal from the source (alternative source monitoring). If the State approves, a system may determine its bin classification under § 141.710 based on the alternative source monitoring results.

(2) If systems conduct alternative source monitoring under paragraph (b)(1) of this section, systems must also monitor their current plant intake concurrently as described in § 141.701.

(3) Alternative source monitoring under paragraph (b)(1) of this section must meet the requirements for source monitoring to determine bin classification, as described in §§ 141.701 through 141.706. Systems must report the alternative source monitoring results to the State, along with supporting information documenting the operating conditions under which the samples were collected.

(4) If a system determines its bin classification under § 141.710 using alternative source monitoring results that reflect a different intake location or a different procedure for managing the timing or level of withdrawal from the source, the system must relocate the intake or permanently adopt the withdrawal procedure, as applicable, no later than the applicable treatment compliance date in § 141.713.

#### § 141.717 Pre-filtration treatment toolbox components.

(a) *Presedimentation.* Systems receive 0.5-log *Cryptosporidium* treatment credit for a presedimentation basin during any month the process meets the criteria in this paragraph.

(1) The presedimentation basin must be in continuous operation and must treat the entire plant flow taken from a surface water or GWUDI source.

(2) The system must continuously add a coagulant to the presedimentation basin.

(3) The presedimentation basin must achieve the performance criteria in paragraph (3)(i) or (ii) of this section.

(i) Demonstrates at least 0.5-log mean reduction of influent turbidity. This reduction must be determined using daily turbidity measurements in the presedimentation process influent and effluent and must be calculated as follows:  $\log_{10}(\text{monthly mean of daily influent turbidity}) - \log_{10}(\text{monthly mean of daily effluent turbidity})$ .

(ii) Complies with State-approved performance criteria that demonstrate at least 0.5-log mean removal of micronized particulate material through the presedimentation process.

(b) *Two-stage lime softening.* Systems receive an additional 0.5-log *Cryptosporidium* treatment credit for a two-stage lime softening plant if chemical addition and hardness precipitation occur in two separate and sequential softening stages prior to filtration. Both softening stages must treat the entire plant flow taken from a surface water or GWUDI source.

(c) *Bank filtration.* Systems receive *Cryptosporidium* treatment credit for bank filtration that serves as pretreatment to a filtration plant by meeting the criteria in this paragraph. Systems using bank filtration when they begin source water monitoring under § 141.701(a) must collect samples as described in § 141.703(d) and are not eligible for this credit.

(1) Wells with a ground water flow path of at least 25 feet receive 0.5-log treatment credit; wells with a ground water flow path of at least 50 feet receive 1.0-log treatment credit. The ground water flow path must be determined as specified in paragraph (c)(4) of this section.

(2) Only wells in granular aquifers are eligible for treatment credit. Granular aquifers are those comprised of sand, clay, silt, rock fragments, pebbles or larger particles, and minor cement. A system must characterize the aquifer at the well site to determine aquifer properties. Systems must extract a core from the aquifer and demonstrate that in at least 90 percent of the core length, grains less than 1.0 mm in diameter constitute at least 10 percent of the core material.

(3) Only horizontal and vertical wells are eligible for treatment credit.

(4) For vertical wells, the ground water flow path is the measured distance from the edge of the surface water body under high flow conditions (determined by the 100 year floodplain elevation boundary or by the floodway, as defined in Federal Emergency Management Agency flood hazard maps) to the well screen. For horizontal

wells, the ground water flow path is the measured distance from the bed of the river under normal flow conditions to the closest horizontal well lateral screen.

(5) Systems must monitor each wellhead for turbidity at least once every four hours while the bank filtration process is in operation. If monthly average turbidity levels, based on daily maximum values in the well, exceed 1 NTU, the system must report this result to the State and conduct an assessment within 30 days to determine the cause of the high turbidity levels in the well. If the State determines that microbial removal has been compromised, the State may revoke treatment credit until the system implements corrective actions approved by the State to remediate the problem.

(6) Springs and infiltration galleries are not eligible for treatment credit under this section, but are eligible for credit under § 141.718(c).

(7) *Bank filtration demonstration of performance.* The State may approve *Cryptosporidium* treatment credit for bank filtration based on a demonstration of performance study that meets the criteria in this paragraph. This treatment credit may be greater than 1.0-log and may be awarded to bank filtration that does not meet the criteria in paragraphs (c)(1)–(5) of this section.

(i) The study must follow a State-approved protocol and must involve the collection of data on the removal of *Cryptosporidium* or a surrogate for *Cryptosporidium* and related hydrogeologic and water quality parameters during the full range of operating conditions.

(ii) The study must include sampling both from the production well(s) and from monitoring wells that are screened and located along the shortest flow path between the surface water source and the production well(s).

#### § 141.718 Treatment performance toolbox components.

(a) *Combined filter performance.* Systems using conventional filtration treatment or direct filtration treatment receive an additional 0.5-log *Cryptosporidium* treatment credit during any month the system meets the criteria in this paragraph. Combined filter effluent (CFE) turbidity must be less than or equal to 0.15 NTU in at least 95 percent of the measurements. Turbidity must be measured as described in § 141.74(a) and (c).

(b) *Individual filter performance.* Systems using conventional filtration treatment or direct filtration treatment receive 0.5-log *Cryptosporidium* treatment credit, which can be in

addition to the 0.5-log credit under paragraph (a) of this section, during any month the system meets the criteria in this paragraph. Compliance with these criteria must be based on individual filter turbidity monitoring as described in § 141.174 or § 141.560, as applicable.

(1) The filtered water turbidity for each individual filter must be less than or equal to 0.15 NTU in at least 95 percent of the measurements recorded each month.

(2) No individual filter may have a measured turbidity greater than 0.3 NTU in two consecutive measurements taken 15 minutes apart.

(3) Any system that has received treatment credit for individual filter performance and fails to meet the requirements of paragraph (b)(1) or (2) of this section during any month does not receive a treatment technique violation under § 141.711(c) if the State determines the following:

(i) The failure was due to unusual and short-term circumstances that could not reasonably be prevented through optimizing treatment plant design, operation, and maintenance.

(ii) The system has experienced no more than two such failures in any calendar year.

(c) *Demonstration of performance.* The State may approve *Cryptosporidium* treatment credit for drinking water treatment processes based on a demonstration of performance study that meets the criteria in this paragraph. This treatment credit may be greater than or less than the prescribed treatment credits in § 141.711 or §§ 141.717 through 141.720 and may be awarded to treatment processes that do not meet the criteria for the prescribed credits.

(1) Systems cannot receive the prescribed treatment credit for any toolbox option in §§ 141.717 through 141.720 if that toolbox option is included in a demonstration of performance study for which treatment credit is awarded under this paragraph.

(2) The demonstration of performance study must follow a State-approved protocol and must demonstrate the level of *Cryptosporidium* reduction the treatment process will achieve under the full range of expected operating conditions for the system.

(3) Approval by the State must be in writing and may include monitoring and treatment performance criteria that the system must demonstrate and report on an ongoing basis to remain eligible for the treatment credit. The State may designate such criteria where necessary to verify that the conditions under which the demonstration of

performance credit was approved are maintained during routine operation.

#### § 141.719 Additional filtration toolbox components.

(a) *Bag and cartridge filters.* Systems receive *Cryptosporidium* treatment credit of up to 2.0-log for individual bag or cartridge filters and up to 2.5-log for bag or cartridge filters operated in series by meeting the criteria in paragraphs (a)(1) through (10) of this section. To be eligible for this credit, systems must report the results of challenge testing that meets the requirements of paragraphs (a)(2) through (9) of this section to the State. The filters must treat the entire plant flow taken from a subpart H source.

(1) The *Cryptosporidium* treatment credit awarded to bag or cartridge filters must be based on the removal efficiency demonstrated during challenge testing that is conducted according to the criteria in paragraphs (a)(2) through (a)(9) of this section. A factor of safety equal to 1-log for individual bag or cartridge filters and 0.5-log for bag or cartridge filters in series must be applied to challenge testing results to determine removal credit. Systems may use results from challenge testing conducted prior to January 5, 2006 if the prior testing was consistent with the criteria specified in paragraphs (a)(2) through (9) of this section.

(2) Challenge testing must be performed on full-scale bag or cartridge filters, and the associated filter housing or pressure vessel, that are identical in material and construction to the filters and housings the system will use for removal of *Cryptosporidium*. Bag or cartridge filters must be challenge tested in the same configuration that the system will use, either as individual filters or as a series configuration of filters.

(3) Challenge testing must be conducted using *Cryptosporidium* or a surrogate that is removed no more efficiently than *Cryptosporidium*. The microorganism or surrogate used during challenge testing is referred to as the challenge particulate. The concentration of the challenge particulate must be determined using a method capable of discreetly quantifying the specific microorganism or surrogate used in the test; gross measurements such as turbidity may not be used.

(4) The maximum feed water concentration that can be used during a challenge test must be based on the detection limit of the challenge particulate in the filtrate (i.e., filtrate detection limit) and must be calculated using the following equation:

$$\text{Maximum Feed Concentration} = 1 \times 10^4 \times (\text{Filtrate Detection Limit})$$

(5) Challenge testing must be conducted at the maximum design flow rate for the filter as specified by the manufacturer.

(6) Each filter evaluated must be tested for a duration sufficient to reach 100 percent of the terminal pressure drop, which establishes the maximum pressure drop under which the filter may be used to comply with the requirements of this subpart.

(7) Removal efficiency of a filter must be determined from the results of the challenge test and expressed in terms of log removal values using the following equation:

$$\text{LRV} = \text{LOG}_{10}(C_f) - \text{LOG}_{10}(C_p)$$

Where:

LRV = log removal value demonstrated during challenge testing;  $C_f$  = the feed concentration measured during the challenge test; and  $C_p$  = the filtrate concentration measured during the challenge test. In applying this equation, the same units must be used for the feed and filtrate concentrations. If the challenge particulate is not detected in the filtrate, then the term  $C_p$  must be set equal to the detection limit.

(8) Each filter tested must be challenged with the challenge particulate during three periods over the filtration cycle: within two hours of start-up of a new filter; when the pressure drop is between 45 and 55 percent of the terminal pressure drop; and at the end of the cycle after the pressure drop has reached 100 percent of the terminal pressure drop. An LRV must be calculated for each of these challenge periods for each filter tested. The LRV for the filter ( $\text{LRV}_{\text{filter}}$ ) must be assigned the value of the minimum LRV observed during the three challenge periods for that filter.

(9) If fewer than 20 filters are tested, the overall removal efficiency for the filter product line must be set equal to the lowest  $\text{LRV}_{\text{filter}}$  among the filters tested. If 20 or more filters are tested, the overall removal efficiency for the filter product line must be set equal to the 10th percentile of the set of  $\text{LRV}_{\text{filter}}$  values for the various filters tested. The percentile is defined by  $(i/(n+1))$  where  $i$  is the rank of  $n$  individual data points ordered lowest to highest. If necessary, the 10th percentile may be calculated using linear interpolation.

(10) If a previously tested filter is modified in a manner that could change the removal efficiency of the filter product line, challenge testing to demonstrate the removal efficiency of



the modified filter must be conducted and submitted to the State.

(b) *Membrane filtration.* (1) Systems receive *Cryptosporidium* treatment credit for membrane filtration that meets the criteria of this paragraph. Membrane cartridge filters that meet the definition of membrane filtration in § 141.2 are eligible for this credit. The level of treatment credit a system receives is equal to the lower of the values determined under paragraph (b)(1)(i) and (ii) of this section.

(i) The removal efficiency demonstrated during challenge testing conducted under the conditions in paragraph (b)(2) of this section.

(ii) The maximum removal efficiency that can be verified through direct integrity testing used with the membrane filtration process under the conditions in paragraph (b)(3) of this section.

(2) *Challenge Testing.* The membrane used by the system must undergo challenge testing to evaluate removal efficiency, and the system must report the results of challenge testing to the State. Challenge testing must be conducted according to the criteria in paragraphs (b)(2)(i) through (vii) of this section. Systems may use data from challenge testing conducted prior to January 5, 2006 if the prior testing was consistent with the criteria in paragraphs (b)(2)(i) through (vii) of this section.

(i) Challenge testing must be conducted on either a full-scale membrane module, identical in material and construction to the membrane modules used in the system's treatment facility, or a smaller-scale membrane module, identical in material and similar in construction to the full-scale module. A module is defined as the smallest component of a membrane unit in which a specific membrane surface area is housed in a device with a filtrate outlet structure.

(ii) Challenge testing must be conducted using *Cryptosporidium* oocysts or a surrogate that is removed no more efficiently than *Cryptosporidium* oocysts. The organism or surrogate used during challenge testing is referred to as the challenge particulate. The concentration of the challenge particulate, in both the feed and filtrate water, must be determined using a method capable of discretely quantifying the specific challenge particulate used in the test; gross measurements such as turbidity may not be used.

(iii) The maximum feed water concentration that can be used during a challenge test is based on the detection limit of the challenge particulate in the

filtrate and must be determined according to the following equation:  

$$\text{Maximum Feed Concentration} = 3.16 \times 10^6 \times (\text{Filtrate Detection Limit})$$

(iv) Challenge testing must be conducted under representative hydraulic conditions at the maximum design flux and maximum design process recovery specified by the manufacturer for the membrane module. Flux is defined as the throughput of a pressure driven membrane process expressed as flow per unit of membrane area. Recovery is defined as the volumetric percent of feed water that is converted to filtrate over the course of an operating cycle uninterrupted by events such as chemical cleaning or a solids removal process (i.e., backwashing).

(v) Removal efficiency of a membrane module must be calculated from the challenge test results and expressed as a log removal value according to the following equation:

$$\text{LRV} = \text{LOG}_{10}(C_f) \times \text{LOG}_{10}(C_p)$$

Where:

LRV = log removal value demonstrated during the challenge test;  $C_f$  = the feed concentration measured during the challenge test; and  $C_p$  = the filtrate concentration measured during the challenge test. Equivalent units must be used for the feed and filtrate concentrations. If the challenge particulate is not detected in the filtrate, the term  $C_p$  is set equal to the detection limit for the purpose of calculating the LRV. An LRV must be calculated for each membrane module evaluated during the challenge test.

(vi) The removal efficiency of a membrane filtration process demonstrated during challenge testing must be expressed as a log removal value ( $\text{LRV}_{\text{C-Test}}$ ). If fewer than 20 modules are tested, then  $\text{LRV}_{\text{C-Test}}$  is equal to the lowest of the representative LRVs among the modules tested. If 20 or more modules are tested, then  $\text{LRV}_{\text{C-Test}}$  is equal to the 10th percentile of the representative LRVs among the modules tested. The percentile is defined by  $(i/(n+1))$  where  $i$  is the rank of  $n$  individual data points ordered lowest to highest. If necessary, the 10th percentile may be calculated using linear interpolation.

(vii) The challenge test must establish a quality control release value (QCRV) for a non-destructive performance test that demonstrates the *Cryptosporidium* removal capability of the membrane filtration module. This performance test must be applied to each production membrane module used by the system

that was not directly challenge tested in order to verify *Cryptosporidium* removal capability. Production modules that do not meet the established QCRV are not eligible for the treatment credit demonstrated during the challenge test.

(viii) If a previously tested membrane is modified in a manner that could change the removal efficiency of the membrane or the applicability of the non-destructive performance test and associated QCRV, additional challenge testing to demonstrate the removal efficiency of, and determine a new QCRV for, the modified membrane must be conducted and submitted to the State.

(3) *Direct integrity testing.* Systems must conduct direct integrity testing in a manner that demonstrates a removal efficiency equal to or greater than the removal credit awarded to the membrane filtration process and meets the requirements described in paragraphs (b)(3)(i) through (vi) of this section. A direct integrity test is defined as a physical test applied to a membrane unit in order to identify and isolate integrity breaches (i.e., one or more leaks that could result in contamination of the filtrate).

(i) The direct integrity test must be independently applied to each membrane unit in service. A membrane unit is defined as a group of membrane modules that share common valving that allows the unit to be isolated from the rest of the system for the purpose of integrity testing or other maintenance.

(ii) The direct integrity method must have a resolution of 3 micrometers or less, where resolution is defined as the size of the smallest integrity breach that contributes to a response from the direct integrity test.

(iii) The direct integrity test must have a sensitivity sufficient to verify the log treatment credit awarded to the membrane filtration process by the State, where sensitivity is defined as the maximum log removal value that can be reliably verified by a direct integrity test. Sensitivity must be determined using the approach in either paragraph (b)(3)(iii)(A) or (B) of this section as applicable to the type of direct integrity test the system uses.

(A) For direct integrity tests that use an applied pressure or vacuum, the direct integrity test sensitivity must be calculated according to the following equation:

$$\text{LRV}_{\text{DIT}} = \text{LOG}_{10} (Q_p / (\text{VCF} \times Q_{\text{breach}}))$$

Where:

$\text{LRV}_{\text{DIT}}$  = the sensitivity of the direct integrity test;  $Q_p$  = total design filtrate flow from the membrane unit;  $Q_{\text{breach}}$  = flow of water from an



integrity breach associated with the smallest integrity test response that can be reliably measured, and VCF = volumetric concentration factor. The volumetric concentration factor is the ratio of the suspended solids concentration on the high pressure side of the membrane relative to that in the feed water.

(B) For direct integrity tests that use a particulate or molecular marker, the direct integrity test sensitivity must be calculated according to the following equation:

$$LRV_{DIT} = \log_{10}(C_f) - \log_{10}(C_p)$$

Where:

$LRV_{DIT}$  = the sensitivity of the direct integrity test;  $C_f$  = the typical feed concentration of the marker used in the test; and  $C_p$  = the filtrate concentration of the marker from an integral membrane unit.

(iv) Systems must establish a control limit within the sensitivity limits of the direct integrity test that is indicative of an integral membrane unit capable of meeting the removal credit awarded by the State.

(v) If the result of a direct integrity test exceeds the control limit established under paragraph (b)(3)(iv) of this section, the system must remove the membrane unit from service. Systems must conduct a direct integrity test to verify any repairs, and may return the membrane unit to service only if the direct integrity test is within the established control limit.

(vi) Systems must conduct direct integrity testing on each membrane unit at a frequency of not less than once each day that the membrane unit is in operation. The State may approve less frequent testing, based on demonstrated process reliability, the use of multiple barriers effective for *Cryptosporidium*, or reliable process safeguards.

(4) *Indirect integrity monitoring.* Systems must conduct continuous indirect integrity monitoring on each membrane unit according to the criteria in paragraphs (b)(4)(i) through (v) of this section. Indirect integrity monitoring is defined as monitoring some aspect of filtrate water quality that is indicative of

the removal of particulate matter. A system that implements continuous direct integrity testing of membrane units in accordance with the criteria in paragraphs (b)(3)(i) through (v) of this section is not subject to the requirements for continuous indirect integrity monitoring. Systems must submit a monthly report to the State summarizing all continuous indirect integrity monitoring results triggering direct integrity testing and the corrective action that was taken in each case.

(i) Unless the State approves an alternative parameter, continuous indirect integrity monitoring must include continuous filtrate turbidity monitoring.

(ii) Continuous monitoring must be conducted at a frequency of no less than once every 15 minutes.

(iii) Continuous monitoring must be separately conducted on each membrane unit.

(iv) If indirect integrity monitoring includes turbidity and if the filtrate turbidity readings are above 0.15 NTU for a period greater than 15 minutes (i.e., two consecutive 15-minute readings above 0.15 NTU), direct integrity testing must immediately be performed on the associated membrane unit as specified in paragraphs (b)(3)(i) through (v) of this section.

(v) If indirect integrity monitoring includes a State-approved alternative parameter and if the alternative parameter exceeds a State-approved control limit for a period greater than 15 minutes, direct integrity testing must immediately be performed on the associated membrane units as specified in paragraphs (b)(3)(i) through (v) of this section.

(c) *Second stage filtration.* Systems receive 0.5-log *Cryptosporidium* treatment credit for a separate second stage of filtration that consists of sand, dual media, GAC, or other fine grain media following granular media filtration if the State approves. To be eligible for this credit, the first stage of filtration must be preceded by a coagulation step and both filtration stages must treat the entire plant flow

taken from a surface water or GWUDI source. A cap, such as GAC, on a single stage of filtration is not eligible for this credit. The State must approve the treatment credit based on an assessment of the design characteristics of the filtration process.

(d) *Slow sand filtration (as secondary filter).* Systems are eligible to receive 2.5-log *Cryptosporidium* treatment credit for a slow sand filtration process that follows a separate stage of filtration if both filtration stages treat entire plant flow taken from a surface water or GWUDI source and no disinfectant residual is present in the influent water to the slow sand filtration process. The State must approve the treatment credit based on an assessment of the design characteristics of the filtration process. This paragraph does not apply to treatment credit awarded to slow sand filtration used as a primary filtration process.

#### § 141.720 Inactivation toolbox components.

(a) *Calculation of CT values.* (1) CT is the product of the disinfectant contact time (T, in minutes) and disinfectant concentration (C, in milligrams per liter). Systems with treatment credit for chlorine dioxide or ozone under paragraph (b) or (c) of this section must calculate CT at least once each day, with both C and T measured during peak hourly flow as specified in §§ 141.74(a) through (b).

(2) Systems with several disinfection segments in sequence may calculate CT for each segment, where a disinfection segment is defined as a treatment unit process with a measurable disinfectant residual level and a liquid volume. Under this approach, systems must add the *Cryptosporidium* CT values in each segment to determine the total CT for the treatment plant.

(b) *CT values for chlorine dioxide and ozone.* (1) Systems receive the *Cryptosporidium* treatment credit listed in this table by meeting the corresponding chlorine dioxide CT value for the applicable water temperature, as described in paragraph (a) of this section.

CT VALUES (MG-MIN/L) FOR *Cryptosporidium* INACTIVATION BY CHLORINE DIOXIDE <sup>1</sup>

Log credit	Water Temperature, °C										
	<=0.5	1	2	3	5	7	10	15	20	25	30
(i) 0.25 .....	159	153	140	128	107	90	69	45	29	19	12
(ii) 0.5 .....	319	305	279	256	214	180	138	89	58	38	24
(iii) 1.0 .....	637	610	558	511	429	360	277	179	116	75	49
(iv) 1.5 .....	956	915	838	767	643	539	415	268	174	113	73
(v) 2.0 .....	1275	1220	1117	1023	858	719	553	357	232	150	98
(vi) 2.5 .....	1594	1525	1396	1278	1072	899	691	447	289	188	122

CT VALUES (MG-MIN/L) FOR *Cryptosporidium* INACTIVATION BY CHLORINE DIOXIDE<sup>1</sup>—Continued

Log credit	Water Temperature, °C										
	<=0.5	1	2	3	5	7	10	15	20	25	30
(vii) 3.0 .....	1912	1830	1675	1534	1286	1079	830	536	347	226	147

<sup>1</sup> Systems may use this equation to determine log credit between the indicated values:  $\text{Log credit} = (0.001506 \times (1.09116)^{\text{Temp}}) \times \text{CT}$ .

(2) Systems receive the corresponding ozone CT values for the described in paragraph (a) of this *Cryptosporidium* treatment credit listed applicable water temperature, as section in this table by meeting the

CT VALUES (MG-MIN/L) FOR *Cryptosporidium* INACTIVATION BY OZONE<sup>1</sup>

Log credit	Water Temperature, °C										
	<=0.5	1	2	3	5	7	10	15	20	25	30
(i) 0.25 .....	6.0	5.8	5.2	4.8	4.0	3.3	2.5	1.6	1.0	0.6	0.39
(ii) 0.5 .....	12	12	10	9.5	7.9	6.5	4.9	3.1	2.0	1.2	0.78
(iii) 1.0 .....	24	23	21	19	16	13	9.9	6.2	3.9	2.5	1.6
(iv) 1.5 .....	36	35	31	29	24	20	15	9.3	5.9	3.7	2.4
(v) 2.0 .....	48	46	42	38	32	26	20	12	7.8	4.9	3.1
(vi) 2.5 .....	60	58	52	48	40	33	25	16	9.8	6.2	3.9
(vii) 3.0 .....	72	69	63	57	47	39	30	19	12	7.4	4.7

<sup>1</sup> Systems may use this equation to determine log credit between the indicated values:  $\text{Log credit} = (0.0397 \times (1.0975)^{\text{Temp}}) \times \text{CT}$ .

(c) *Site-specific study.* The State may approve alternative chlorine dioxide or ozone CT values to those listed in paragraph (b) of this section on a site-specific basis. The State must base this approval on a site-specific study a system conducts that follows a State-approved protocol.

(d) *Ultraviolet light.* Systems receive *Cryptosporidium*, *Giardia lamblia*, and virus treatment credits for ultraviolet

(UV) light reactors by achieving the corresponding UV dose values shown in paragraph (d)(1) of this section. Systems must validate and monitor UV reactors as described in paragraphs (d)(2) and (3) of this section to demonstrate that they are achieving a particular UV dose value for treatment credit.

(1) *UV dose table.* The treatment credits listed in this table are for UV light at a wavelength of 254 nm as

produced by a low pressure mercury vapor lamp. To receive treatment credit for other lamp types, systems must demonstrate an equivalent germicidal dose through reactor validation testing, as described in paragraph (d)(2) of this section. The UV dose values in this table are applicable only to post-filter applications of UV in filtered systems and to unfiltered systems.

UV DOSE TABLE FOR *Cryptosporidium*, *Giardia lamblia*, AND VIRUS INACTIVATION CREDIT

Log credit	<i>Cryptosporidium</i> UV dose (mJ/cm <sup>2</sup> )	<i>Giardia lamblia</i> UV dose (mJ/cm <sup>2</sup> )	Virus UV dose (mJ/cm <sup>2</sup> )
(i) 0.5 .....	1.6	1.5	39
(ii) 1.0 .....	2.5	2.1	58
(iii) 1.5 .....	3.9	3.0	79
(iv) 2.0 .....	5.8	5.2	100
(v) 2.5 .....	8.5	7.7	121
(vi) 3.0 .....	12	11	143
(vii) 3.5 .....	15	15	163
(viii) 4.0 .....	22	22	186

(2) *Reactor validation testing.* Systems must use UV reactors that have undergone validation testing to determine the operating conditions under which the reactor delivers the UV dose required in paragraph (d)(1) of this section (i.e., validated operating conditions). These operating conditions must include flow rate, UV intensity as measured by a UV sensor, and UV lamp status.

(i) When determining validated operating conditions, systems must account for the following factors: UV

absorbance of the water; lamp fouling and aging; measurement uncertainty of on-line sensors; UV dose distributions arising from the velocity profiles through the reactor; failure of UV lamps or other critical system components; and inlet and outlet piping or channel configurations of the UV reactor.

(ii) Validation testing must include the following: Full scale testing of a reactor that conforms uniformly to the UV reactors used by the system and inactivation of a test microorganism whose dose response characteristics

have been quantified with a low pressure mercury vapor lamp.

(iii) The State may approve an alternative approach to validation testing.

(3) *Reactor monitoring.* (i) Systems must monitor their UV reactors to determine if the reactors are operating within validated conditions, as determined under paragraph (d)(2) of this section. This monitoring must include UV intensity as measured by a UV sensor, flow rate, lamp status, and other parameters the State designates

based on UV reactor operation. Systems must verify the calibration of UV sensors and must recalibrate sensors in accordance with a protocol the State approves.

(ii) To receive treatment credit for UV light, systems must treat at least 95 percent of the water delivered to the public during each month by UV reactors operating within validated conditions for the required UV dose, as described in paragraphs (d)(1) and (2) of this section. Systems must demonstrate compliance with this condition by the monitoring required under paragraph (d)(3)(i) of this section.

**Reporting and Recordkeeping Requirements**

**§ 141.721 Reporting requirements.**

(a) Systems must report sampling schedules under § 141.702 and source water monitoring results under § 141.706 unless they notify the State that they will not conduct source water monitoring due to meeting the criteria of § 141.701(d).

(b) Systems must report the use of uncovered finished water storage facilities to the State as described in § 141.714.

(c) Filtered systems must report their *Cryptosporidium* bin classification as described in § 141.710.

(d) Unfiltered systems must report their mean source water *Cryptosporidium* level as described in § 141.712.

(e) Systems must report disinfection profiles and benchmarks to the State as described in §§ 141.708 through 141.709 prior to making a significant change in disinfection practice.

(f) Systems must report to the State in accordance with the following table for any microbial toolbox options used to comply with treatment requirements under § 141.711 or § 141.712. Alternatively, the State may approve a system to certify operation within required parameters for treatment credit rather than reporting monthly operational data for toolbox options.

**MICROBIAL TOOLBOX REPORTING REQUIREMENTS**

Toolbox option	Systems must submit the following information	On the following schedule
(1) Watershed control program (WCP).	(i) Notice of intention to develop a new or continue an existing watershed control program. (ii) Watershed control plan ..... (iii) Annual watershed control program status report ..... (iv) Watershed sanitary survey report .....	No later than two years before the applicable treatment compliance date in § 141.713 No later than one year before the applicable treatment compliance date in § 141.713. Every 12 months, beginning one year after the applicable treatment compliance date in § 141.713. For community water systems, every three years beginning three years after the applicable treatment compliance date in § 141.713. For noncommunity water systems, every five years beginning five years after the applicable treatment compliance date in § 141.713.
(2) Alternative source/intake management.	Verification that system has relocated the intake or adopted the intake withdrawal procedure reflected in monitoring results.	No later than the applicable treatment compliance date in § 141.713.
(3) Presedimentation .....	Monthly verification of the following: (i) Continuous basin operation (ii) Treatment of 100% of the flow (iii) Continuous addition of a coagulant (iv) At least 0.5-log mean reduction of influent turbidity or compliance with alternative State-approved performance criteria.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(4) Two-stage lime softening	Monthly verification of the following: (i) Chemical addition and hardness precipitation occurred in two separate and sequential softening stages prior to filtration (ii) Both stages treated 100% of the plant flow.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(5) Bank filtration .....	(i) Initial demonstration of the following: (A) Unconsolidated, predominantly sandy aquifer (B) Setback distance of at least 25 ft. (0.5-log credit) or 50 ft. (1.0-log credit). (ii) If monthly average of daily max turbidity is greater than 1 NTU then system must report result and submit an assessment of the cause..	No later than the applicable treatment compliance date in § 141.713. Report within 30 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(6) Combined filter performance.	Monthly verification of combined filter effluent (CFE) turbidity levels less than or equal to 0.15 NTU in at least 95 percent of the 4 hour CFE measurements taken each month.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(7) Individual filter performance.	Monthly verification of the following: (i) Individual filter effluent (IFE ) turbidity levels less than or equal to 0.15 NTU in at least 95 percent of samples each month in each filter (ii) No individual filter greater than 0.3 NTU in two consecutive readings 15 minutes apart.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.]
(8) Demonstration of performance.	(i) Results from testing following a State approved protocol. (ii) As required by the State, monthly verification of operation within conditions of State approval for demonstration of performance credit.	No later than the applicable treatment compliance date in § 141.713. Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.

## MICROBIAL TOOLBOX REPORTING REQUIREMENTS—Continued

Toolbox option	Systems must submit the following information	On the following schedule
(9) Bag filters and cartridge filters.	(i) Demonstration that the following criteria are met: (A) Process meets the definition of bag or cartridge filtration; (B) Removal efficiency established through challenge testing that meets criteria in this subpart. (ii) Monthly verification that 100% of plant flow was filtered.	No later than the applicable treatment compliance date in § 141.713.  Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(10) Membrane filtration .....	(i) Results of verification testing demonstrating the following: (A) Removal efficiency established through challenge testing that meets criteria in this subpart; (B) Integrity test method and parameters, including resolution, sensitivity, test frequency, control limits, and associated baseline. (ii) Monthly report summarizing the following: (A) All direct integrity tests above the control limit; (B) If applicable, any turbidity or alternative state-approved indirect integrity monitoring results triggering direct integrity testing and the corrective action that was taken.	No later than the applicable treatment compliance date in § 141.713.  Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(11) Second stage filtration ..	Monthly verification that 100% of flow was filtered through both stages and that first stage was preceded by coagulation step.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(12) Slow sand filtration (as secondary filter).	Monthly verification that both a slow sand filter and a preceding separate stage of filtration treated 100% of flow from subpart H sources..	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(13) Chlorine dioxide .....	Summary of CT values for each day as described in § 141.720..	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(14) Ozone .....	Summary of CT values for each day as described in § 141.720..	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.
(15) UV .....	(i) Validation test results demonstrating operating conditions that achieve required UV dose. (ii) Monthly report summarizing the percentage of water entering the distribution system that was not treated by UV reactors operating within validated conditions for the required dose as specified in 141.720(d)..	No later than the applicable treatment compliance date in § 141.713.  Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in § 141.713.

**§ 141.722 Recordkeeping requirements.**

(a) Systems must keep results from the initial round of source water monitoring under § 141.701(a) and the second round of source water monitoring under § 141.701(b) until 3 years after bin classification under § 141.710 for filtered systems or determination of the mean *Cryptosporidium* level under § 141.710 for unfiltered systems for the particular round of monitoring.

(b) Systems must keep any notification to the State that they will not conduct source water monitoring due to meeting the criteria of § 141.701(d) for 3 years.

(c) Systems must keep the results of treatment monitoring associated with microbial toolbox options under §§ 141.716 through 141.720 and with uncovered finished water reservoirs under § 141.714, as applicable, for 3 years.

**Requirements for Sanitary Surveys Performed by EPA****§ 141.723 Requirements to respond to significant deficiencies identified in sanitary surveys performed by EPA.**

(a) A sanitary survey is an onsite review of the water source (identifying sources of contamination by using results of source water assessments where available), facilities, equipment, operation, maintenance, and monitoring compliance of a PWS to evaluate the adequacy of the PWS, its sources and operations, and the distribution of safe drinking water.

(b) For the purposes of this section, a significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.

(c) For sanitary surveys performed by EPA, systems must respond in writing to significant deficiencies identified in sanitary survey reports no later than 45 days after receipt of the report,

indicating how and on what schedule the system will address significant deficiencies noted in the survey.

(d) Systems must correct significant deficiencies identified in sanitary survey reports according to the schedule approved by EPA, or if there is no approved schedule, according to the schedule reported under paragraph (c) of this section if such deficiencies are within the control of the system.

**PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION**

■ 8. The authority citation for part 142 continues to read as follows:

**Authority:** 42 U.S.C. 300f, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-4, 300j-9 and 300j-11.

■ 9. Section 142.14 is amended by adding paragraph (a)(9) to read as follows:

**§ 142.14 Records kept by States.**

\* \* \* \* \*

(a) \* \* \*

(9) Any decisions made pursuant to the provisions of part 141, subpart W of this chapter.

(i) Results of source water *E. coli* and *Cryptosporidium* monitoring.

(ii) The bin classification after the initial and after the second round of source water monitoring for each filtered system, as described in § 141.710 of this chapter.

(iii) Any change in treatment requirements for filtered systems due to watershed assessment during sanitary surveys, as described in § 141.711(d) of this chapter.

(iv) The determination of whether the mean *Cryptosporidium* level is greater than 0.01 oocysts/L after the initial and after the second round of source water monitoring for each unfiltered system, as described in § 141.712(a) of this chapter.

(v) The treatment processes or control measures that systems use to meet their *Cryptosporidium* treatment requirements under § 141.711 or § 141.712 of this chapter.

(vi) A list of systems required to cover or treat the effluent of an uncovered finished water storage facility; as specified in § 141.714 of this chapter.

\* \* \* \* \*

■ 10. Section 142.15 is amended by adding paragraph (c)(6) to read as follows:

§ 142.15 Reports by States.

(c) \* \* \*

(6) Subpart W. (i) The bin classification after the initial and after the second round of source water monitoring for each filtered system, as described in § 141.710 of this chapter.

(ii) Any change in treatment requirements for these systems due to watershed assessment during sanitary surveys, as described in § 141.711(d) of this chapter.

(iii) The determination of whether the mean *Cryptosporidium* level is greater than 0.01 oocysts/L both after the initial and after the second round of source water monitoring for each unfiltered system, as described in § 141.712(a) of this chapter.

\* \* \* \* \*

■ 11. Section 142.16 is amended by adding paragraph (n) to read as follows:

§ 142.16 Special primacy conditions.

\* \* \* \* \*

(n) Requirements for States to adopt 40 CFR part 141, subpart W. In addition to the general primacy requirements elsewhere in this part, including the requirements that State regulations be at least as stringent as Federal requirements, an application for approval of a State program revision that adopts 40 CFR part 141, subpart W, must contain a description of how the

State will accomplish the following program requirements where allowed in State programs.

(1) Approve an alternative to the *E. coli* levels that trigger *Cryptosporidium* monitoring by filtered systems serving fewer than 10,000 people, as described in § 141.701(a)(5).

(2) Assess significant changes in the watershed and source water as part of the sanitary survey process and determine appropriate follow-up action for systems, as described in § 141.711(d) of this chapter.

(3) Approve watershed control programs for the 0.5-log treatment credit in the microbial toolbox, as described in § 141.716(a) of this chapter.

(4) Approve protocols for demonstration of performance treatment credits in the microbial toolbox, as allowed under § 141.718(c) of this chapter.

(5) Approve protocols for alternative ozone and chlorine dioxide CT values in the microbial toolbox, as allowed under § 141.720(c) of this chapter.

(6) Approve an alternative approach to UV reactor validation testing in the microbial toolbox, as allowed under § 141.720(d)(2)(iii) of this chapter.

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# Federal Register

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Thursday,  
January 5, 2006

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**Part III**

## **Department of Commerce**

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**National Oceanic and Atmospheric  
Administration**

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**15 CFR Part 930  
Coastal Zone Management Act Federal  
Consistency Regulations; Final Rule**

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****15 CFR Part 930**

[Docket No. 030604145-4038-02]

RIN 0648-AR16

**Coastal Zone Management Act Federal Consistency Regulations**

**AGENCY:** Office of Ocean and Coastal Resource Management (OCRM), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

**ACTION:** Final rule.

**SUMMARY:** The National Oceanic and Atmospheric Administration (NOAA) revises the federal consistency regulations under the Coastal Zone Management Act of 1972 (CZMA). This final rule addresses the CZMA-related recommendations of the Report of the National Energy Policy Development Group, dated May 2001 (Energy Report) as described in NOAA's June 11, 2003, Notice of Proposed Rulemaking (68 FR 34851-34874) (proposed rule), and comments submitted to NOAA on the proposed rule. In addition, this final rule includes provisions complying with statutory amendments made in the Energy Policy Act of 2005 (Pub. L. 109-58) (Energy Policy Act) that concerned matters addressed in the proposed rule. This final rule continues to provide the balance between State-Federal-private interests embodied in the CZMA, while making improvements to the federal consistency regulations by clarifying some sections and providing greater transparency and predictability to the implementation of federal consistency. This final rule fully maintains the authority and ability of coastal States to review proposed federal actions that would have a reasonably foreseeable effect on any land or water use or natural resource of a State's coastal zone, as provided for in the CZMA and NOAA's regulations, as revised in 2000.

**DATES:** *Effective date:* These rules shall become effective on February 6, 2006. *Applicability date:* All appeals to the Secretary under 15 CFR part 930, subpart H, filed on or after February 6, 2006, shall be processed in accordance with the procedures and time frames adopted in subpart H of this final rule. For appeals to the Secretary under 15 CFR part 930, subpart H, any procedural or threshold issues which occurred prior to February 6, 2006, shall be governed by the regulations in 15 CFR

part 930, subpart D, E, and/or F, in effect at the time the procedural or threshold issue occurred.

**FOR FURTHER INFORMATION CONTACT:**

David W. Kaiser, Federal Consistency Coordinator, Office of Ocean and Coastal Resource Management (N/ORM3), NOAA, 1305 East-West Highway, 11th Floor, Silver Spring, Maryland 20910. Telephone: 301-713-3155, extension 144.

Additional information on federal consistency can be located at OCRM's federal consistency Web page: [http://coastalmanagement.noaa.gov/czm/federal\\_consistency.html](http://coastalmanagement.noaa.gov/czm/federal_consistency.html).

**SUPPLEMENTARY INFORMATION:****I. Background**

For nearly 30 years, the CZMA has met the needs of coastal States, Great Lake States and United States Trust Territories and Commonwealths (collectively referred to as "coastal States" or "States"), Federal agencies, industry and the public to balance the protection of coastal resources with coastal development, including energy development. The CZMA requires the States to consider the national interest as stated in the CZMA objectives and give priority consideration to coastal dependant uses and processes for facilities related to national defense, energy, fisheries, recreation, ports and transportation, when adopting and amending their Coastal Management Programs (CMPs), and when making coastal management decisions. CZMA sections 303(2)(D) and 306(d)(8).

Coastal States have collaborated with industry on a variety of energy facilities, including oil and gas pipelines, nuclear power plants, hydroelectric facilities, and alternative energy development. States have reviewed and approved thousands of offshore oil and gas facilities and related onshore support facilities.

On December 8, 2000, NOAA issued a comprehensive revision to the federal consistency regulations, which reflected substantial effort over a five year period and participation by Federal agencies, States, industry, and the public. Given this recent broad-based review, NOAA did not propose a comprehensive rewrite of the 2000 final rule; rather, it has made improvements to address the issues raised in the Energy Report, the proposed rule and comments submitted on the proposed rule.

In February 2001, the Vice President established the National Energy Policy Development Group to bring together business, government, local communities and citizens to promote a dependable, affordable, and

environmentally sound National Energy Policy. Vice President Cheney submitted the Energy Report to President Bush on May 16, 2001.

The Energy Report contains numerous recommendations for a long-term, comprehensive energy strategy. The Energy Report found that the effectiveness of Commerce and Interior programs are "sometimes lost through a lack of clearly defined requirements and information needs from Federal and State entities, as well as uncertain deadlines during the process." The CZMA and the Outer Continental Shelf Lands Act (OCSLA), a statute administered by the Minerals Management Service (MMS), within the Department of the Interior (Interior), are specifically mentioned in the Energy Report. The Energy Report recommended that Commerce and Interior "re-examine the current federal legal and policy regime (statutes, regulations, and Executive Orders) to determine if changes are needed regarding energy-related activities and the siting of energy facilities in the coastal zone and on the Outer Continental Shelf (OCS)." Energy Report at 5-7. There is no explicit reference to other energy programs in this recommendation, but its purpose is reinforced by related Energy Report recommendations which encourage and direct the streamlining of significant energy actions within the jurisdiction of other Federal agencies, including the Federal Energy Regulatory Commission (FERC).

In July 2002, NOAA published an Advanced Notice of Proposed Rulemaking, 67 FR 44407-44410 (July 2, 2002) (ANPR), seeking comments on whether improvements should be made to NOAA's federal consistency regulations. In response to public comments on the ANPR NOAA issued its proposed rule. After review of the comments received on the proposed rule and after waiting for the final report of the U.S. Commission on Ocean Policy (released in Fall 2004), NOAA has decided to issue this final rule.

NOAA emphasizes that the changes to the federal consistency regulations contained in this final rule fully maintain the authority granted to States to review federal actions, pursuant to the CZMA and NOAA's 2000 rule. This final rule does not, in any way, alter the scope of the federal consistency "effects test" or the obligation of Federal agencies and non-federal applicants for required federal licenses or permits to comply with the federal consistency requirement. The issue of whether a proposed Federal agency activity under CZMA section 307(c)(1) is subject to

State consistency review is still guided by the Federal agency's determination of reasonably foreseeable coastal effects, in accordance with NOAA's long-standing implementation and as articulated in the 2000 rule. Likewise, the application of State consistency review to federal license or permit activities, OCS plans and Federal financial assistance activities under CZMA sections 307(c)(3)(A) and (B) and 307(d) remains unchanged, i.e., the application of the "listing" and "unlisted" requirements in 15 CFR 930.53 and 930.54 remains unchanged. The time periods for the States' substantive consistency reviews and decisions remain unchanged (75 days for Federal agency activities, six months for federal license or permit activities and OCS plans, and the time periods established by the States for federal assistance activities). States may continue to amend their CMP's to describe State specific information necessary to start the CZMA review period for federal license or permit activities and OCS plans. States may continue to request additional information during the 75-day and six-month review periods and may still object for lack of information. The final rule does not change these and other important regulatory provisions. At the same time this final rule improves the clarity, transparency and predictability of the regulations within the discretion granted to NOAA by the CZMA.

Although this final rule does not change the fundamental federal consistency process, coastal states are strongly encouraged to coordinate and participate with applicants for energy projects and responsible Federal agencies early in project development. This effort will ensure that the States' ability to require NEPA documentation as necessary data and information does not delay the start of the six-month consistency review period or unnecessarily delay a Federal agency's decision for a proposed project it finds to be in the public interest.

While this rulemaking was pending the House and Senate passed the Energy Policy Act of 2005 (H.R. 6 and S. 10), signed by President Bush on August 8, 2005 (Pub. L. 109-58). Some provisions of the Energy Policy Act directly address matters raised in the proposed rule and comments on the proposed rule related to appeals under subpart H of these regulations. Specifically, the Energy Policy Act established new appeal deadlines: 30 days to publish a notice of appeal, then 160 days to develop a decision record, with provisions to stay the 160-day period for 60 days, and a 60-75 day period to issue a decision after the record is closed.

These deadlines are shorter than NOAA proposed, but longer than the deadlines some commenters recommended in comments on the proposed rule. In addition, the Energy Policy Act proscribed the method of developing the Secretary's decision record for appeals of energy projects. These provisions were also similar to comments made on the proposed rule. The changes to subpart H in this final rule are necessary to ensure NOAA's regulations are in compliance with the Energy Policy Act and are within the scope of the provisions contained in the proposed rule and the public comments received on that proposal. Therefore, there was no need to re-propose subpart H for additional comment.

## II. History of the CZMA and NOAA's Federal Consistency Regulations

The CZMA was enacted in 1972 to encourage States to be proactive in managing natural resources for their benefit and the benefit of the Nation. The CZMA recognizes a national interest in the resources of the coastal zone and in the importance of balancing the competing uses of those resources. The CZMA is a voluntary program for States. If a State elects to participate it must develop and implement a CMP pursuant to federal requirements. See CZMA section 306(d); 15 CFR part 923. State CMPs are comprehensive management plans that describe the uses subject to the management program, the authorities and enforceable policies of the management program, the boundaries of the State's coastal zone, the organization of the management program, and related State coastal management concerns. The State CMPs are developed with the participation of Federal agencies, industry, other interested groups and the public. Thirty-five coastal States are eligible to participate in the federal coastal management program. Thirty-four of the eligible States have federally approved CMPs. Illinois is not currently participating.

The CZMA federal consistency provision is a cornerstone of the CZMA program and a primary incentive for States' participation. Federal consistency is a limited waiver of federal supremacy and authority. Federal agency activities that have coastal effects must be consistent to the maximum extent practicable with the federally approved enforceable policies of the State's CMP. In addition, non-federal applicants for federal authorizations and funding must be fully consistent with the enforceable policies of State CMPs. While States have negotiated changes to thousands of

federal actions over the years, States have concurred with approximately 93%-95% of all federal actions reviewed.

NOAA's federal consistency regulations were first promulgated in 1979. In late 1996, OCRM began a process to comprehensively revise the regulations in consultation with Federal agencies, States, industry, Congress, and other interested parties. NOAA published a proposed rule in April 2000 and a final rule on December 8, 2000, which became effective on January 8, 2001. Most of the changes in the revised 2000 regulations were dictated by changes in the CZMA or by specific statements in the accompanying legislative history. For instance, the 2000 regulations added language concerning the scope of the federal consistency "effects test." Prior to the CZMA 1990 amendments, Federal agency activities "directly affecting" the coastal zone were subject to federal consistency. The 1990 CZMA amendments broadened this language by dropping the word "directly" to include actions with "effects" on any land or water use or natural resource of the coastal zone. Other changes to the original 1979 regulations improved and clarified procedures based on long-standing interpretive practice.

There are several basic statutory tenets to federal consistency. These are:

1. A federal action is subject to federal consistency if it has reasonably foreseeable coastal effects: the "effects test." CZMA section 307.
2. Federal actions cannot be categorically exempted from federal consistency—the effects test determines the application of the CZMA. CZMA section 307.
3. There are no geographical boundaries to the application of the effects test. CZMA section 307.
4. Early coordination between Federal agencies, applicants and States is encouraged. CZMA section 307.
5. State federal consistency decisions must be based on enforceable policies that are approved by NOAA as part of the State's federally approved CMP. CZMA section 307.
6. States must provide for public comment on their federal consistency decisions. CZMA sections 307; 306(d)(14).
7. Federal development projects within a State's coastal zone are automatically subject to federal consistency. CZMA section 307(c)(2).
8. The Federal agency determines whether a Federal agency activity has coastal effects, and, if there are coastal effects, must provide a consistency determination to the affected State(s) no

later than 90 days before final approval unless the Federal agency and the State agree to a different schedule. CZMA section 307(c)(1).

9. A Federal agency activity must be carried out in a manner consistent to the maximum extent practicable with the enforceable policies of a State's CMP. However, a Federal agency may proceed over a State's objection if the Federal agency provides the State a written statement showing that its activity is consistent to the maximum extent practicable. CZMA section 307(c)(1), (2).

10. States and Federal agencies may seek mediation by the Secretary to resolve serious federal consistency disputes. CZMA section 307.

11. An activity proposed by a non-Federal entity for a required federal license or permit (including an OCS oil and gas plan) is subject to federal consistency if the activity will have reasonably foreseeable coastal effects. CZMA section 307(c)(3)(A) and (B).

12. An applicant for a required federal license or permit activity resulting in coastal effects, including OCS plans, must provide affected States with a consistency certification and necessary information and data supporting the certification. The State must object to or concur with the certification within six months or its concurrence is presumed. For review of OCS plans States must first provide a three-month notice as to the status of its review and if the three-month notice is not provided, then concurrence is presumed. CZMA section 307(c)(3)(A) and (B).

13. An applicant can appeal the State's objection to the Secretary of Commerce, who can override the State's objection if the Secretary finds that the activity is consistent with CZMA objectives or is otherwise necessary in the interest of national security. The Secretary, in making a decision on an appeal, must provide a reasonable opportunity for detailed comments from the Federal agency involved and from the State. CZMA section 307(c)(3)(A).

14. The authorizing Federal agency cannot approve a federal license or permit for an activity with reasonably foreseeable coastal effects unless the State concurs or the Secretary overrides the State's objection. CZMA section 307(c)(3)(A) and (B).

15. State agencies and local governments applying for Federal funds for activities that have reasonably foreseeable coastal effects must provide the State with a consistency certification and the authorizing Federal agency cannot issue the funds unless the State concurs. Applicant agencies can also appeal State objections to the Secretary. CZMA section 307(d).

16. Federal consistency does not supersede, modify or repeal existing laws applicable to Federal agencies. CZMA section 307(e).

17. Federal consistency does not affect the requirements of the Clean Water Act or the Clean Air Act established by the Federal Government or the States and such requirements are part of the States' federally approved CMPs. CZMA section 307(f).

18. The Secretary shall have 30 days to publish a notice of appeal, then 160 days to develop a decision record, and may stay the 160-day period for 60 days, and has a 60-75 day period to issue a decision after the record is closed. CZMA section 319.

These are the statutory parameters of federal consistency. Since 1979, NOAA's federal consistency regulations have interpreted CZMA requirements and provided reliable procedures and predictability for the implementation of federal consistency. Even though the Secretary has discretion in the establishment of procedures to implement the CZMA's statutory provisions, NOAA, in this final rule, as in the 2000 rule, is not altering its long-standing interpretations of the major regulatory definitions set forth in the 1979 regulations, endorsed by Congress in the 1990 reauthorization of the CZMA, relied on in court decisions and as described in the 2000 rule. Consistent with the statute, the 2000 rule and court decisions, NOAA has retained these fundamental and well-established regulatory interpretations. The improvements contained in this final rule change the language of some regulatory provisions to provide greater clarity, transparency and predictability to federal consistency procedures, while retaining NOAA's long-standing interpretations of the CZMA. NOAA's regulations have operated well for the Federal and State agencies and permit applicants and the changes in this final rule will allow them to continue to do so more efficiently and effectively.

### III. The Role of the CZMA in OCS and Other Energy Development

The CZMA and the OCSLA interact both by explicit cross-reference in the statutes and through their regulatory implementation. Both statutes mandate State review of OCS oil and gas Exploration Plans (EP's) and Development and Production Plans (DPP's). Both statutes and their corresponding regulations provide a compatible and interrelated process for States to review EP's and DPP's.

When MMS offers an OCS lease sale, it is a Federal agency activity. If MMS determines that the lease sale will have

reasonably foreseeable coastal effects, then MMS must provide a CZMA consistency determination to the affected State(s) examining whether the lease sale is "consistent to the maximum extent practicable" with the enforceable policies of the State's CMP. If the State objects, MMS may still proceed with the lease sale if MMS' administrative record and the OCSLA show that it is fully consistent or consistent to the maximum extent practicable. The ability of a Federal agency to proceed over a State's objection to a proposed Federal agency activity existed prior to the 2000 rule, was further clarified in the 2000 rule and remains unchanged by this final rule.

The CZMA requires that when a lessee seeks MMS approval for its EP or DPP, the lessee must certify to the affected State(s) that the activities authorized by the licenses or permits described in the plans are fully consistent with the enforceable policies of the State's CMP. If the State objects to the consistency certification, then MMS is prohibited from approving the license or permits described in detail in the EP or DPP. The lessee may appeal to the Secretary of Commerce to override the State objection and allow MMS to issue its approvals described in the plan. When deciding an appeal, the Secretary balances the national interest in energy development, among other elements, against adverse effects on coastal resources and coastal uses.

The CZMA and NOAA's regulations ensure that the national interest in the CZMA objectives are furthered. These safeguards are discussed below using OCS oil and gas activities as illustrations.

The "Effects Test." As discussed above, federal consistency review is triggered only when it is reasonably foreseeable that the federal action will have coastal effects, referred to as the "effects test." Consistency does NOT apply to every action or authorization of a Federal agency, or of a non-federal applicant for federal authorizations.

For OCS oil and gas lease sales, MMS determines whether coastal effects are reasonably foreseeable and provides affected States with a consistency determination. For example, MMS has established the Eastern Planning, Central Planning and Western Planning Areas for the Gulf of Mexico. MMS may determine that lease sales in the Eastern Planning Area will not have reasonably foreseeable effects on State coastal uses or resources within the Central Planning Area. Therefore, MMS may choose not to provide States adjacent to the Central Planning Area with a consistency

determination. MMS could also determine that a lease sale held far offshore in the Eastern Planning Area would not have foreseeable coastal effects on Florida or Alabama coastal uses or resources.

For OCS EP's and DPP's the CZMA mandates State consistency review. However, as with Federal agency activities, a coastal State's ability to review the Plans stops at the point where coastal effects are not reasonably foreseeable. Whether coastal effects are reasonably foreseeable is a factual matter to be determined by the State, the applicant and MMS on a case-by-case basis.

If a State wanted to ensure that OCS EP's and DPP's located in a particular offshore area would be subject to State CZMA review automatically, a State could, if NOAA approved, amend its CMP to specifically describe a geographic location outside the State's coastal zone where such plans would be presumed to affect State coastal uses or resources. See 15 CFR 930.53. Or, if a State wanted to review an EP or DPP where the applicant and/or MMS have asserted that coastal effects are not reasonably foreseeable, the State could request approval from NOAA to review such plans on a case-by-case basis. See 15 CFR 930.54 (unlisted activities). In both situations, NOAA would approve only if the State made a factual demonstration that effects on its coastal uses or resources are reasonably foreseeable as a result of activities authorized by a particular EP or DPP. Similarly, where the applicant or FERC has asserted that a proposed project located outside the coastal zone or outside a geographic location described in a state's management program pursuant to 15 CFR 930.53, will not have reasonably foreseeable coastal effects, NOAA would not approve a State request to review the project unless the State made a factual demonstration that the project has reasonably foreseeable coastal effects. This final rule does not change that process.

**NOAA Approval of State CMPs.** NOAA, with substantial input from Federal agencies, local governments, industry, non-governmental organizations and the public, must approve State CMPs and their enforceable policies, including subsequent changes to a State's CMP. NOAA's required approval ensures consideration of Federal agency activities and federal license or permit activities, including OCS plans. For example, NOAA has denied State requests to include policies in its federally approved CMP that would

prohibit all oil and gas activities off its coast because such policies conflict with the CZMA requirements to consider the national interest in energy development, see CZMA sections 303(2)(D) and 306(d)(8), and to balance resource protection with coastal uses of national significance.

**Consistent to the Maximum Extent Practicable and Fully Consistent.** For Federal agency activities under CZMA section 307(c)(1), such as OCS Lease Sales, a Federal agency may proceed with the activity over a State's objection if the Federal agency determines its activity is consistent to the maximum extent practicable with the enforceable policies of the State's CMP. This means that even if a State objects, MMS may proceed with an OCS lease sale when MMS provides the State with the reasons why the OCSLA and MMS's administrative record supporting the lease sale decisions prohibit MMS from fully complying with the State's enforceable policies. MMS could also proceed if it determined that its activity was fully consistent with the State's enforceable policies. Under NOAA's regulations, the consistent to the maximum extent practicable standard also allows Federal agencies to deviate from State enforceable policies and CZMA procedures due to unforeseen circumstances and emergencies. This final rule does not change the application of the consistent to the maximum extent practicable standard.

**Appeal to the Secretary of Commerce.** For non-federal applicants for federal authorizations, such as OCS EP and DPP approvals and FERC certificates under the Natural Gas Act or licenses under the Federal Power Act, the applicant may appeal a State's objection to the Secretary of Commerce pursuant to CZMA sections 307(c)(3) and (d). The Secretary overrides the State's objection if the Secretary finds that the activity is consistent with the objectives or purposes of the CZMA or is necessary in the interest of national security. If the Secretary overrides the State's objection, then the Federal agency may issue its authorization.

Since 1978, MMS has approved over 10,600 EP's and over 6,000 DPP's. States have concurred with nearly all of these plans. In the 30-year history of the CZMA, there have been only 18 instances where the offshore oil and gas industry appealed a State's federal consistency objection to the Secretary of Commerce. The Secretary issued a decision in 14 of those cases. The Secretary did not issue a decision for the other 4 OCS appeals because the appeals were withdrawn due to settlement negotiations between the

State and applicant or a settlement agreement between the Federal Government and the oil companies involved in the projects. Of the 14 decisions (1 DPP and 13 EP's), there were 7 decisions to override the State's objection and 7 decisions not to override the State.

Since the 1990 amendments to the CZMA, there have been several OCS oil and gas lease sales by MMS and only one State objection. In that one objection OCRM determined that the State's objection was not based on enforceable policies, MMS determined that it was consistent to the maximum extent practicable with the State's CMP, and the lease sale proceeded. Thus, all lease sales offered by MMS since the 1990 amendments have proceeded after State federal consistency review. In addition, since 1990, there have been six State objections to OCS plans. In three of those cases, the Secretary did not override the State's objection. In two of the cases the Secretary did override the State allowing MMS approval of the permits described in the plans, and in one case the State objection was withdrawn as a result of a settlement agreement between the Federal Government and the oil companies involved in the project.

With respect to FERC jurisdictional matters, there have been two State objections in the past three years to applications for certificates of public convenience and necessity to construct and operate natural gas pipelines. In one of these cases, the Secretary ruled the project did not meet the requirements for overriding State objections. In the other, the Secretary overrode State objections and ruled the project could proceed.

**Presidential Exemption.** After any appealable final judgement, decree, or order of any Federal court, the President may exempt from compliance the elements of a Federal agency activity that are found by a Federal court to be inconsistent with a State's CMP, if the President determines that the activity is in the paramount interest of the United States. CZMA § 307(c)(1)(B). This exemption was added to the statute in 1990 and has not yet been used.

**Mediation.** Mediation has been used to resolve federal consistency disputes and allowed federal actions to proceed. In the event of a serious disagreement between a Federal agency and a State, either party may request that the Secretary of Commerce mediate the dispute. NOAA's regulations also provide for OCRM mediation to resolve disputes between States, Federal agencies, and other parties.



#### IV. Explanation of Proposed Changes to the Federal Consistency Regulations

**Rule Change 1:** § 930.1(b) and (c) Overall Objectives. This change moves the parenthetical with the description of "federal action" from § 930.11(g) to the first instance of the term in § 930.1(b). Federal action is used throughout the regulations to refer, when appropriate, to subparts C, D, E, F and I. The final rule adds a statement to § 930.1(c) to encourage states to participate in the administrative processes of federal agencies. This would strengthen the early coordination objectives of the CZMA and enhance the ability of federal agencies to address the enforceable policies of a state's management program.

**Rule Change 2:** § 930.10 Definitions Table of Contents—Definition of Failure Substantially to Comply with an OCS Plan. The reference to section 930.86(d) is incorrect. There was no 930.86(d). The reference is now to 930.85(c). There is no change from the proposed rule.

**Rule Change 3:** § 930.11(g) Definitions—Effect on any coastal use or resource (coastal effects). This change moves the parenthetical for "federal actions" to the first instance of federal action in § 930.1(b) and inserts more specific language for Federal agency activity and federal license or permit activity. There is no change from the proposed rule.

**Rule Change 4:** § 930.31(a) Federal agency activity. This change does not alter the current application of the definition of Federal agency activity, but clarifies that a "function" by a Federal agency refers to a *proposal for action*. The examples included are also rewritten to emphasize that a proposed action is an essential element of the definition. In response to commenters' concerns that Federal agencies may view this change as a basis to exempt some activities from the effects test, NOAA reiterates that this change does not affect the application of the effects test. Congress amended the CZMA in 1990 to make it clear that no federal actions are categorically exempt from federal consistency and that the determination of whether consistency applies is a case-by-case analysis of whether a Federal agency activity will have reasonably foreseeable effects on any coastal use or resource. See H.R. Conf. Rep. No. 964, 101st Cong., 2d Sess. 968-975, 971; 136 Cong. Rec. H 8076 (Sep. 26, 1990); and 65 FR 77125 (December 8, 2000). The change to this section is consistent with Congressional directives.

It has always been NOAA's view that federal consistency applies to proposals

to take an action or initiate a series of actions that have reasonably foreseeable coastal effects, and not to agency deliberations or internal tasks related to a proposed agency action. See e.g., sections in NOAA's 2000 regulations that refer to "proposed" activities: 15 CFR 930.36(a), 930.35, 930.39(a), 930.46(a), 930.1(c), 930.11(d). See also discussion in the preamble to the 2000 final rule: 65 FR 77130, Col. 2-3 (December 8, 2000). Thus, a planning document that explores possible projects or priorities for an agency is not a Federal agency activity, as there is no action proposed. However, a Federal agency plan or rulemaking proposing a new action is a Federal agency activity subject to the effects test.

Not all "planning" or "rulemaking" activities are subject to federal consistency since such planning or rulemaking may merely be part of the agency's deliberative process. Likewise, the plan or rulemaking may not propose an action with reasonably foreseeable coastal effects and would therefore not be subject to federal consistency. If, however, an agency's administrative deliberations result in a plan to take an action, or a rulemaking proposing an action or a directive, then that plan or rulemaking could be subject to federal consistency if coastal effects are reasonably foreseeable. For example, MMS produces a 5-year Leasing Program "Plan," pursuant to the OCSLA. MMS has informed NOAA that the 5-Year Program Plan is a preliminary activity that does not set forth a proposal for action and thus, coastal effects cannot be determined at this early stage. Accordingly, MMS' proposal for action would occur when MMS conducts a particular OCS oil and gas lease sale.

Once a Federal agency proposes an action, it is the proposal for action which is the subject of the consistency review. The State only reviews the proposed action and does not review all tasks, ministerial activities, meetings, discussions, and exchanges of views incidental or related to a proposed action, and does not review other aspects of a Federal agency's deliberative process. In addition, Federal agency activities do not include interim or preliminary activities incidental or related to a proposed action for which a consistency determination has been or will be submitted and which do not make new commitments for actions with coastal effects. Such interim or preliminary activities are not independent actions subject to federal consistency review.

For example, where a Federal agency has not yet submitted a consistency

determination to a State or where a State has already concurred with a Federal agency's consistency determination for a proposed action, planning activities related to the agency's deliberative process may occur before or after the State's federal consistency review that are incidental to the proposed action. In these cases the interim or preliminary activity would not be subject to federal consistency review.

In the OCS oil and gas context, examples of interim or preliminary activities which are not Federal agency activities include the publication of OCS 5-Year programs, as discussed above; or rulemakings establishing administrative procedures for OCS-related activities that do not affect coastal uses or resources (e.g., rulemaking prescribing the completion and submission of forms). Consistent with the Ninth Circuit's decision in *California ex rel. Cal. Coastal Comm'n v. Norton*, 150 F. Supp.2d 1046 (N.D. Cal. 2001), *aff'd*, 311 F.3d 1162 (9th Cir. 2002), MMS action to grant or direct suspensions of OCS operations or production is an interim or preliminary activity and not a Federal agency activity subject to federal consistency when the lease suspension would not have reasonably foreseeable coastal effects. If the State had previously reviewed any reasonably foreseeable coastal effects of a lease suspension during the State's review of the lease sale, EP or DPP for federal consistency, then the lease suspension would not be the subject of a new consistency review. In this sense, the lease suspension is an interim or preliminary activity. See NOAA's response to comments 25 and 26 for further discussion on lease suspensions and *California v. Norton* and NOAA's conclusion that in all foreseeable instances, lease suspensions would not be subject to federal consistency review since (1) in general, they do not authorize activities with coastal effects, and (2) if they did contain activities with coastal effects, the activities and coastal effects would be covered in a State's review of a previous lease sale, an EP or a DPP. If a State believes that a particular lease suspension should be subject to federal consistency, the State should notify MMS. MMS could (1) agree with the State that coastal effects are reasonably foreseeable and provide the State with a consistency determination; (2) provide the State with a negative determination pursuant to 15 CFR 930.35; and/or (3) determine that the lease suspension is an interim activity that does not propose a new action with coastal effects.

In another example of what is subject to State consistency review, consider

the situation when the Navy proposes to construct a pier. The project involves compliance with numerous federal laws, e.g., National Environmental Policy Act (NEPA) documents, Endangered Species Act (ESA) section 7 consultation, a Rivers and Harbors Act section 10 permit from the Army Corps of Engineers (Corps), contracts with a construction company to build the pier, etc. These various authorizations and activities related to the Navy's proposal to build the pier are not separate Federal agency activities subject to federal consistency. The Federal agency activity for purposes of 15 CFR 930.31 is the proposal to build the pier. Under 15 CFR 930.36(b), the Federal agency determines when it has sufficient information to provide the State with a consistency determination. For instance, in this example of the Navy pier, the Navy could conclude that under Navy procedures the pier is not a proposed action until the proposed activity requires analysis under NEPA. The State reviews only the pier proposal. The State uses the information provided by the Navy, pursuant to 15 CFR 930.39(a), to evaluate coastal effects and determine consistency with the State's enforceable policies. The State may request, or the Navy may provide, the Corps section 10 permit application, or the Biological Opinion under the ESA or the NEPA document, in addition to the Navy's consistency determination. Information in these documents may be used as part of the necessary information required by 15 CFR 930.39, but they are not required to be part of the information required in § 930.39(a) and are not reviewed as the proposed Federal agency activity for consistency.

NOAA has changed "event(s)" to "activity(ies)" since the term "activities" more closely follows the statute and NOAA's regulations.

The final rule makes minor changes from proposed rule. There is no change in meaning from the proposed rule. The first sentence in this section in the proposed rule language was grammatically awkward. The final rule merely breaks the first sentence into two sentences and makes minor grammatical corrections to the second sentence.

**Rule Change 5:** § 930.31(d) Federal agency activity—General Permits. In the 2000 rule, NOAA acknowledged the hybrid nature of general permits and gave Federal agencies the option of issuing a general permit under either CZMA § 307(c)(1) (Federal agency activity) or CZMA § 307(c)(3)(A) (federal license or permit activity), even though NOAA has opined that, for CZMA purposes, a general permit was more appropriately treated as a Federal

agency activity. In this final rule, NOAA has removed the option to allow Federal agencies to treat their general permits as a federal license or permit activity for purposes of complying with CZMA § 307 and 15 CFR part 930. If a general permit is proposed by a Federal agency and coastal effects are reasonably foreseeable, then the general permit is a Federal agency activity under CZMA § 307(c)(1) and 15 CFR part 930, subpart C. NOAA's determination that general permits are Federal agency activities and not federal license or permit activities under CZMA § 307 is for CZMA purposes only and is based on the reasons described below, which are specific to the requirements of the CZMA. Therefore, this determination does not affect the status of general permits under the Administrative Procedure Act or under any other federal statute. For example, while general permits issued under the Clean Water Act are Federal agency activities under these revised regulations, NOAA recognizes that EPA continues to consider those same permits to be licenses or permits for purposes of the APA and for purposes of State certification under Clean Water Act section 401.

There are several reasons why a general permit should not be a federal license or permit activity under CZMA § 307. Under NOAA's regulations, Federal agencies are not "applicants" within the meaning of 15 CFR 930.52. See 65 FR 77145 (col 1&2) (Dec. 8, 2000). Even if NOAA were to change its regulations to allow a Federal agency to be an "applicant," it is not clear how the Federal agency could appeal the State's objection to the Secretary of Commerce.

Further, even if a general permit were treated as a federal license or permit activity for CZMA § 307 purposes and a State objected, it would be problematic for the potential users of a general permit to appeal the State's objection since there would be no case specific factual inquiry on which the Secretary could base an appeal decision.

Other changes clarify that if a State objects to a consistency determination for a general permit, the general permit would, pursuant to the consistent to the maximum extent practicable standard as described in 15 CFR 930.32, still be in legal effect for that State, but that 15 CFR part 930, subpart C of the consistency regulations would no longer apply. Thus, a State objection to a consistency determination for the issuance of a general permit would alter the form of CZMA compliance required, transforming the general permit into a series of case-by-case CZMA decisions

and requiring an individual who wants to use the general permit to submit an individual consistency certification to the State agency in compliance with 15 CFR part 930, subpart D. However, all provisions of the license or permit sections would apply, including the "listing," "unlisted," and "geographic location description" requirements in §§ 930.53 and 930.54. Once the State concurs with the certification, then an individual user may undertake the activity(ies) authorized by the general permit in accordance with the State's concurrence. If the State objects to the individual user's (now an applicant under subpart D) consistency certification, then the individual cannot undertake the activity(ies) authorized by the general permit, unless the individual user (now the applicant) appeals the State's objection to the Secretary of Commerce, pursuant to subpart H, and the Secretary overrides the State's objection.

NOAA reiterates that if a State concurs with a consistency determination for a general permit, then the State has no authority under the CZMA to review individual uses of the general permit under subpart C or D. For example, in the OCS oil and gas context, if a State has concurred with the Environmental Protection Agency's consistency determination for an OCS National Pollutant Discharge Elimination System (NPDES) general permit under the Clean Water Act, then the State may not review the use of the NPDES general permit for consistency at the OCS EP or DPP stage of reviews or when a facility files a notice of intent to be covered by a general permit under the NPDES regulations. If, however, a State objects to the OCS NPDES general permit, then each user, or "applicant" in CZMA parlance, must file a consistency certification with the State pursuant to subpart D, and obtain the State's concurrence before it may undertake the activities authorized by the NPDES general permit.

Minor editorial changes were made from the proposed rule with no change in meaning. The term "approval" was replaced with "issuance" since issuance more accurately describes the distinction between a general permit and case-by-case permits. The last sentence was not clear regarding when someone had to provide the State with a certification after a State objected to a general permit. The change provides a clearer statement that only applicants and persons who want to use a general permit would have to provide the certification, and not all potential users in the State. The general permit section

would only apply to subpart D and E applicants.

**Rule Change 6:** § 930.35(d) General negative determination. Section 930.35(d) is changed to (e) and a new section 930.35(d) is added. The general negative determination (General ND) has been developed as an administrative convenience when Federal agencies undertake repetitive activities that, either on an individual, case-by-case basis or cumulatively, do not have coastal effects. The General ND does not alter the factual basis required for federal consistency reviews.

A General ND does not alter the requirement for Federal agencies to provide consistency determinations to coastal States when there are reasonably foreseeable coastal effects, the "effects test." The Federal agency must still make an analysis of coastal effects for the repetitive activities, individually and cumulatively. The General ND is an analogue to the existing General consistency determinations (15 CFR 930.36(c)) (which is for repetitive activities which do have cumulative effects). For example, a General ND may apply to activities far away from the coastal zone because coastal effects are not foreseeable, but might not apply to the same set of activities if proposed in or near the coastal zone where the proximity of the activities to coastal uses or resources may have coastal effects and require a General consistency determination or individual consistency determination.

A Federal agency is not required to use a General ND. If any one of the conditions for a negative determination are met, then a Federal agency could choose to provide the State with either an individual Negative Determination, or if applicable, a General ND. The conditions for a Negative Determination are when a Federal agency determines that its proposed action will not have coastal effects and the activity is (1) listed in the State's program or the State has notified the Federal agency that it believes coastal effects are reasonably foreseeable, (2) the activity is the same as or is similar to activities for which consistency determinations have been prepared in the past, or (3) the Federal agency undertook a thorough consistency assessment and developed initial findings on the coastal effects of the activity. See 15 CFR 930.35(a)(1)-(3).

If a State subsequently finds that a General ND may no longer be applicable, the State agency may request that the Federal agency reassess the General ND. In the case of a disagreement between the State and the

Federal agency, the conflict resolution provisions of subpart G are available.

A minor editorial change was made from the proposed rule. NOAA replaced the word "specified" with "specific."

**Rule Change 7:** § 930.37 Consistency determinations and National Environmental Policy Act (NEPA) requirements. The change clarifies information needs related to NEPA documents by providing more specific direction of the long-standing understanding of the distinction between NEPA and CZMA. Federal agencies are required to submit information to support a consistency determination, pursuant to the requirements in § 930.39, and may do so in any manner it chooses. Thus, even though a Federal agency may provide a NEPA document to support its consistency determination, States cannot require Federal agencies to do so.

**Rule Change 8:** § 930.41(a) State agency response. This change clarifies when the State's consistency review period begins for Federal agency activities. The changes provide additional clarification that the State's determination of whether the information provided by the Federal agency pursuant to 15 CFR 930.39(a) is complete, is not a substantive review. Instead, it is a "checklist" review to see if the description of the activity, the coastal effects, and the evaluation of the State's enforceable policies are included in the submission to the State agency. If the items required by § 930.39(a) are included, then the 60-day review starts. This review does not determine or evaluate the *substantive adequacy* of the information. The adequacy of the information is a component of the State's substantive consistency review which occurs during the 60-day review period.

To help resolve disputes as to when the 60-day review period started when a State later claims that required information was not provided, NOAA replaced the requirement to "immediately" notify the Federal agency that information required by § 930.39(a) is missing with a 14-day notification period. If the State agency has not notified the Federal agency of missing information within this 14-day period, then the State waives the ability to make that claim and the 60-day review period is deemed to have started when the State received the initial determination and information. This means that State agencies should pay close attention to the date they receive consistency determinations. States retain the ability to conduct a full 60-day review (or 75-day review with

extension), request additional information during the State's 60-day review, or object for lack of information at the end of the 60-day review period.

A minor editorial change was made from the proposed rule. The last sentence was grammatically awkward so it was broken into two sentences, with no change in meaning.

**Rule Change 9:** § 930.51(a) Federal license or permit. The language changes emphasize and clarify NOAA's long-standing view of the elements needed to determine that an authorization from a Federal agency is a "federal license or permit" within the meaning of the CZMA and therefore subject to State federal consistency review. First, Federal law must require that the applicant obtain the federal authorization. Second, the purpose of the federal authorization is to allow a non-federal applicant to conduct a proposed activity. Third, the activity proposed must have reasonably foreseeable effects on a State's coastal uses or resources, and fourth, the proposed activity was not previously reviewed for federal consistency by the State agency (unless the authorization is a renewal or major amendment pursuant to § 930.51(b)). All four of these elements are required to trigger federal consistency review.

For CZMA federal consistency purposes, "federal license or permit" does not include federal authorizations for activities that do not have coastal effects. Federal consistency does not apply to a required federal certification of an applicant's ministerial paperwork which is merely incidental or related to an activity that either does not have coastal effects or an activity that is already subject to federal consistency review. Ministerial certifications which are merely incidental to an activity undertaken by the applicant and which has already or will soon be the subject of a full federal consistency review are not federal license or permit activities for subpart D purposes. The following examples are authorizations which are not a "federal license or permit" under the CZMA:

*Example 1.* MMS makes certain determinations such as the qualification of bidders for OCS lease sales, bonding certifications, certifications of financial responsibility, approvals of departures from regulations in order to enhance safety.

*Example 2.* A Federal agency certifies equipment to be used for an activity where the activity has already been the subject of a consistency review.

*Example 3.* MMS issuance of "Notification requirements" which merely require the operator to notify MMS of an activity and where MMS' approval is not required are not subject to federal consistency.

*Example 4.* When the Coast Guard merely reviews the transportation plan of an energy company transporting spent nuclear waste by ship, there is no "license or permit" under CZMA section 307(c)(3)(A) because Coast Guard authorization is not required by Federal law. See *New Jersey v. Long Island Power Authority*, 30 F.3d 403 (3d Cir. 1994) (Coast Guard review of vessel transportation plans was not a Federal agency activity or federal license or permit activity).

However, a lease issued by a Federal agency to a non-federal entity which is the only federal authorization for the use of the federal property for a non-federal activity is a "federal license or permit," pursuant to section 307(c)(3)(A), if the applicant is required to obtain a lease from the Federal agency for use of the Federal property, the proposed activity will have coastal effects, and the State did not previously review a required federal authorization for the same activity.

Thus, the language changes to the rule ensure that the definition of "federal license or permits" is not overly-inclusive or beyond the commonly understood meaning of license or permit, while at the same time retaining the phrase "any required authorization" to capture any form of federal license or permit that is: (1) Required by Federal law, (2) authorizes an activity, (3) the activity to be authorized has reasonably foreseeable coastal effects, and (4) the authorization is not incidental to a federal license or permit previously reviewed by the State. Thus, the removal of the forms of approvals listed in the current language does not exclude any category of federal authorizations from federal consistency, but instead emphasizes that any form of federal authorization must have the required elements to be considered a "federal license or permit" for CZMA purposes.

Factual disputes concerning whether a federal authorization is subject to federal consistency can be addressed through NOAA's procedures for the review of listed or unlisted federal license or permit activities. 15 CFR 930.53 and 930.54.

The effects test language previously at the end of the definition is deleted as superfluous since subpart C contains the effects analysis for Federal agency activities.

A minor editorial change was made from the proposed rule with no change in meaning. The proposed language was somewhat redundant and awkward. NOAA moved the end of the first sentence to the beginning, providing a clearer flow for the sentence. In addition, a minor correction was made to add the phrase "federal license or permit" to the second sentence.

*Rule Change 10:* § 930.51(e) Substantially different coastal effects. Section (e) was added in the 2000 rule to emphasize that determining whether the effects from a renewal or major amendment are substantially different is a case-by-case factual determination requiring the input of all parties. NOAA used the phrase "the opinion of the State agency shall be accorded deference," (emphasis added) to help ensure that the State agency has the opportunity to review coastal effects which may be substantially different than previously reviewed. NOAA expected that the parties would discuss the matter and agree whether effects are substantially different. NOAA did not intend to use the phrase to have the State agency make the decision on whether coastal effects are substantially different. Thus, to provide clarification, NOAA has amended the section so that the Federal permitting agency makes this determination after consulting with the State and applicant. If a State disagrees with a Federal agency's determination concerning substantially different coastal effects, then the State could either request NOAA mediation or seek judicial review to resolve the factual dispute.

A minor editorial change was made from the proposed rule breaking the second sentence into two sentences, with no change in meaning.

*Rule Change 11:* § 930.58(a)(1) Necessary data and information. This change provides more specific information requirements for federal license or permit activities. The purpose of § 930.58 is to identify the information needed to start the six-month consistency review period and to the extent possible, identify the information needed by the State agency to make its concurrence or objection. Thus, the more specific the information requirements are, the more predictable and transparent the process.

Section 930.58(a)(1) is reorganized to clarify that "necessary data and information" means (1) a copy of the federal application, (2) all supporting material provided to the Federal agency in support of the application, (3) information that is required and specifically described in the State's management program, and (4) if not included in 1 or 2, a detailed description of the activity, its associated facilities and the coastal effects of the activity. The evaluation of the State's enforceable policies is retained under § 930.58(a)(3).

NOAA removed the clause in § 930.58(a)(1) that said "and comprehensive data and information sufficient to support the applicant's

consistency certification." The language removed is viewed as ambiguous because it could refer to the other paragraphs in this section or to other undefined information, and could create uncertainty in the determination of when the six-month review period starts. Section 930.58(a)(2) allows the State to describe in its CMP the necessary specific information in addition to that required by NOAA regulations.

These changes do not affect a State's ability to specifically describe "necessary data and information" in the State's federally approved management program (§ 930.58(a)(2)), or to request additional information during the six-month review period (§ 930.60(c)), or to object for lack of information (§ 930.63(c)).

There is no change from the proposed rule.

*Rule Change 12:* § 930.58(a)(2) Necessary data and information (State permits). In the 2000 rule, NOAA allowed States to describe State permits as necessary data and information. Unfortunately, implementation of this provision revealed the potential for States to require applicants to obtain State permit approval before the six-month consistency review period could begin. This could result in a State consistency decision before the six-month review period even begins, thus potentially defeating the statutory time frames in the CZMA. In addition, the public comment on federal consistency could be rendered moot because necessary State approvals would already have been obtained. NOAA did not intend the 2000 rule to create a potential conflict between the statutorily defined six-month consistency review process and State permit requirements. While it may be appropriate or necessary for a State to require completed State permit applications as necessary data and information, it is not appropriate to require a State approved or issued permit. Therefore, NOAA has removed "State permits" as eligible necessary data and information requirements, but has retained State permit applications. This change, as described in the proposed rule, contemplated "complete" State permit applications, and NOAA has included "complete" in the final rule. When appropriate, the applicant and the State could agree, pursuant to § 930.60, to stay the six-month period until a specific date to allow for issuance of the State permit. A State, at the end of the six-month review period may, of course, object if the applicant has not yet received the State permit.



In addition, NOAA added language to clarify that when a Federal statute requires a Federal agency to initiate the CZMA review prior to its completion of NEPA compliance, NEPA documents will not be considered necessary data and information pursuant to § 930.58(a)(2). For example, when the operation of a Federal statute precludes a Federal agency from delaying the start of the CZMA process because the NEPA document is not complete, NEPA documents listed in a State's management program cannot be considered necessary data and information. This issue has come to light in the case of the Outer Continental Shelf Lands Act (OCSLA). See explanation of rule change 15: § 930.76(a) and (b) Submission of an OCS plan, necessary data and information and consistency certification. In addition, neither the CZMA nor NEPA require the Federal agency to include CZMA consistency determination information in NEPA documents. Therefore, States cannot delay the start of the CZMA review period because CZMA consistency information is not included in a NEPA document.

Two minor changes were made from the proposed rule. As discussed in the preamble to the proposed rule and in this final rule NOAA intended the rule to refer to "completed" State permit applications. Thus, "completed" is added to the third sentence. The second change is the language regarding NEPA documents discussed above.

**Rule Change 13: § 930.60**  
Commencement of State agency review. These changes clarify when the State's six-month review period begins for federal license or permit activities. The changes clarify that the State's determination of whether the information provided by the applicant pursuant to 15 CFR 930.58 is complete is not a substantive review. Instead it is a "checklist" review to see if the application, description of the activity, the coastal effects, the evaluation of the State's enforceable policies, and specific information described in the State's federally approved program are included in the submission to the State agency. If the items required by § 930.58 are included, then the six-month review starts. This review does not determine or evaluate the *substantive adequacy* of the information. The adequacy of the information is a component of the State's substantive review which occurs during the six-month review period. The change also further clarifies that a State may not stop, stay or otherwise alter the consistency review period once it begins, unless the applicant agrees in

writing to stay the review period until a specific end date. NOAA deleted the word "extend" to avoid potential conflicts with the six-month period set by statute. Thus, the State agency and applicant can stay or "toll" the running of the six-month review period for an agreed upon time ending on a specific date, after which the remainder of the six-month review period would continue. Such agreements must be set forth in writing so that it is clear there is a meeting-of-the-minds between the State and the applicant. Ideally, the written agreement should be one document that both parties sign. The written agreement for a stay must refer to a specific end date and should not be written to require a later event or condition to be satisfied to end the stay.

If a State wants to require information in addition to that required by NOAA in § 930.58(a) prior to starting the six-month review period, the only way the State can do so is to amend its management program to identify specific "necessary data and information" pursuant to § 930.58(a)(2). This is not a new requirement, but was required in the 1979 rule and clarified in the 2000 rule.

NOAA also has removed a State's option of starting the six-month review period when a consistency certification has not been submitted. See below under *Collier Decision* for further information. The rest of the re-write of the section more clearly sets forth the existing provisions for starting the six-month review period when (1) the applicant has not provided a consistency certification, but has provided the necessary data and information described in § 930.58(a), (2) the applicant has provided the consistency certification, but not all necessary data and information described in § 930.58(a), or (3) the applicant has not provided either the consistency certification or all necessary data and information. The paragraphs have been renumbered accordingly.

**The Collier Decision.** Under the 2000 rule, § 930.60(a)(1)(ii) allowed a State to start the six-month consistency review period even if the applicant had not provided a consistency certification or the necessary data and information. However, now, as described in *Collier*, NOAA has determined that a State could not start the six-month review without the applicant's consistency certification. See NOAA's Dismissal Letter in the Consistency Appeal of Collier Resources Company (April 17, 2002). In *Collier*, NOAA determined that:

An applicant's failure to provide a state with a consistency certification cannot divest

a state of its authority pursuant to CZMA section 307(c)(3)(A). However, filing a state objection without an underlying consistency certification provided by the applicant is neither a remedy for the applicant's failure to comply with the CZMA, nor a valid exercise of [the State's] own CZMA authorities.

The statutory language and scheme of the CZMA presumes that the applicant has the first opportunity to demonstrate that its activity is consistent with the enforceable policies of the state CMP. Section 307(c)(3)(A) provides in pertinent part: "[a]t the earliest practicable time, the state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification." The NOAA regulations also require a state objection to be made in response to the applicant's consistency certification. 15 CFR 930.64. Likewise, consistency cannot be presumed without the receipt of a consistency certification. 16 U.S.C. 1456(c)(3)(A) and 15 CFR 930.63. Finally, NOAA's regulations anticipate that the applicant will have the first opportunity to provide the state with the necessary information and data to demonstrate consistency with the state CMP and that only after the receipt of that information can the state consistency review process begin. See 15 CFR 930.58.

Given the language and structure of the statute and NOAA's implementing regulations, it is clear that an applicant's consistency certification is essential to a state's Federal consistency review. Therefore, I conclude that a State may not "object" within the meaning of the CZMA, to an application for a federal license or permit when no consistency certification has been submitted. Florida's objection in this case has no effect or is not valid.

A coastal state is not without remedy, however, when a recalcitrant applicant declines to provide the necessary consistency certification. First, both the statute and the regulations make it clear that a Federal agency cannot issue a license or permit until "the state or its designated agency has concurred with the applicant's consistency certification or until by the state's failure to act, the concurrence is conclusively presumed." 16 U.S.C. 1456(c)(3)(A). In addition, a state may seek enforcement of the CZMA in federal court. Unlike the Secretary of Commerce, the federal courts have the authority to require compliance with federal law through the issuance of mandamus, injunction and other relief.

Optimally, in matters such as this, where an applicant disagrees that its permit or license activity is subject to the provisions of a state CMP can be resolved through the availability of mediation services of NOAA's Office of Ocean and Coastal Resource Management (OCRM), 15 CFR 930.55, or an advisory letter issued by OCRM pursuant to 15 CFR 930.142 (15 CFR 930.3(2001)). While these informal procedures do not carry the weight of a federal court order, they represent the views of the expert agency charged with the implementation of the CZMA. These informal remedies are also more expedient and less costly than the Secretarial appeals process or federal litigation.



While not central to the decision made in *Collier*, NOAA opined in *Collier* that the six-month review period could also only start after receipt of the necessary data and information. *Id.* However, NOAA has determined that a State could, if it wished to, waive the requirement that all necessary data and information be received and start the six-month review upon receipt of a consistency certification, but without the necessary data and information (but could not then later stop the six-month time period without agreement from the applicant). NOAA makes this distinction because, as discussed in *Collier*, a consistency certification is central to the State's jurisdiction and authority under the statute to conduct a consistency review. Allowing necessary data and information to be submitted after the six-month period has begun provides flexibility to the State and applicant.

Various edits to § 930.60 were made from the proposed rule. These edits do not change the meaning of the proposed rule and do not add or remove requirements that were not described in the proposed rule. Some of the changes to this section in the proposed rule were difficult to follow. Therefore, the final rule somewhat reorganizes and restates the requirements described in the proposed rule. The final rule replaces "information" in this section with "necessary data and information" to be clear that the section refers to the necessary data and information described in § 930.58(a), and not to other information the State may want during the six-month review. Also, the final rule uses "review period" as a more accurate description than "timeclock."

In paragraph (a), the reference to 930.54(e) is removed because there is no exception in § 930.54(e), as changed in the 2000 rule. Paragraph (a)(1) is rewritten to be clear that this paragraph describes the requirement that a certification must be submitted to start the review period. Paragraph (a)(2) more clearly describes the cases where either the necessary data and information was not received or both the consistency certification and the necessary data and information are missing. The last clause in paragraph (a)(2) addresses the scenario where both the certification and the necessary data and information are missing by clarifying that a certification must be submitted, even if the State elects to start the review period without all necessary data and information. The requirements that were in paragraphs (a)(1)(i) and (ii) in the proposed rule are now more clearly described in paragraphs (a)(1) and (2).

The waiver and last statement in paragraph (a)(2) more clearly describes the requirements that were in (a)(1)(ii), allowing the State to choose to start the review period before receiving all necessary data and information. The last sentence in paragraph (a)(3) is needed when the State starts the six-month review period before receiving all necessary data and information (i.e., the "waiver" described in (a)(2)) to make clear that the review period does not start anew when the State receives the missing necessary data and information.

Minor edits were made to paragraph (a)(3), which was (a)(2) in the proposed rule; paragraph (b), which was (a)(3) in the proposed rule; and paragraph (c), which was (b) in the proposed rule.

**Rule Change 14:** § 930.63(d). The cross reference to 930.121(d) is incorrect. There is no 930.121(d). The reference is to 930.121(c). There is no change from the proposed rule.

**Rule Change 15:** § 930.76(a) and (b) Submission of an OCS plan, necessary data and information and consistency certification. These changes address information requirements for OCS plans. The changes provide a more specific list of the information required. Clean Air Act and Clean Water Act permits are not included in NOAA's regulations as these permits are already required to be "described in detail" in OCS plans and are covered under the State's review of the OCS plan. See 30 CFR 250.203(b)(4), 203(b)(19), 204(b)(8)(ii) and 204(b)(14). Thus, States should review CWA and CAA permit applications concurrently with the OCS plan review. If the CWA and CAA information is not described in detail in an OCS plan, then subpart D applies.

While the status of the completion of NEPA documents is an issue raised by coastal States when performing consistency reviews, NOAA is not adding language requiring that NEPA documents be included as information necessary to start the six-month review period. A requirement that NEPA documents (draft or final) be completed prior to the start of the six-month review period is incompatible with statutory requirements in the OCSLA. 43 U.S.C. 1340(c)(1) and 1351(h). MMS must make its decision whether to approve an EP within 30 days of receipt of the EP. Within that 30-day period, MMS completes its Environmental Assessment (EA). Interior has informed NOAA that, MMS submits the EP and accompanying information to the State within days of receipt of the EP to meet OCSLA requirements and to avoid delay in the CZMA process. The six-month review period starts when the State receives that information. MMS sends

the EA to the State when the EA is completed. Since the State receives the EA within a very short period (20–30 days) after the start of the six-month review period, the CZMA process is not delayed unnecessarily.

For DPP's, States can amend their programs, pursuant to 15 CFR 930.58(a)(2), to include draft NEPA documents as data and information necessary to start the six-month review, because there is additional time in the OCSLA process. See 43 U.S.C. 1351(h) and 30 CFR 250.204(1). States can not amend their programs to require final NEPA documents for OCSLA purposes as part of the necessary data and information because the OCSLA requires MMS to approve or deny a DPP within 60 days after completion of the final EIS. *Id.* This 60-day OCSLA period does not provide sufficient time for the six-month CZMA consistency review period.

Paragraph (a) is deleted and combined with (b) as (a) is redundant with (b), particularly (1) and (3).

There is a minor correction from the proposed rule. The term "confidential" is added at the of § 930.76(b), because the phrase used throughout the regulations is "confidential and proprietary information."

**Rule Change 16:** § 930.77(a) Commencement of State agency review and public notice. This change clarifies the time when the State's consistency review period begins for OCS plans. The changes provide additional direction that the State's determination of whether the information provided by the person pursuant to 15 CFR 930.76 is complete, is not a substantive review. Instead, it is a "checklist" review to see if the OCS plan, description of the activity, the coastal effects, the evaluation of the State's enforceable policies, specific information described in the State's federally approved program, and information required by Interior's regulations are included in the submission to the State agency. If the items required by § 930.76 are included, then the six-month review starts. This review does not determine the *substantive adequacy* of the information. The adequacy of the information is a component of the State's substantive review which occurs during the six-month review period.

The changes also clarify that if the State wants to require additional information in addition to that required by § 930.76 for its review of OCS plans, it would have to describe such information in an amendment to its management program, pursuant to § 930.58(a)(2). This is not a new

provision, but was provided in the 1979 rule and restated in the 2000 rule.

This section is changed to address the circumstances where a State believes the information submitted, as required by NOAA's regulations, is insufficient (e.g., either the analysis is substantively inadequate, or that the OCS plan addresses new activities or effects not foreseen and for which information was not provided). In such a case a State may request additional information. The rule change requires that such a request be made within the first three months of the six-month review period. A change is made from the proposed rule such that, if after the three-month period, new activities or coastal effects not previously described and for which information was not provided become part of the OCS plan, then the State may request additional information on the new activities or effects. A request for additional information does not stop, stay or otherwise alter the six-month review period. As discussed in rule change 26, a consistency concurrence is limited to the scope of the activities and effects reviewed by the State.

In addition to the minor substantive change from the proposed rule discussed above, two minor editorial changes were made, with no change in meaning. The first was to add the term "certification" to the first sentence of § 930.77(a)(1) since the proposed language could be incorrectly interpreted to mean that the six-month review period could start with the necessary data and information, but not a certification. The second editorial change is to rewrite the second sentence of § 930.77(a)(2). The original sentence, while referring to the necessary data and information section for OCS plans, 930.76, it is not clear that this is a reference to the need to amend the State's program if the State wants to require additional necessary data and information to start the six-month review period as opposed to a State's request for additional information after the six-month review period has started.

**Rule Change 17:** § 930.82 Amended OCS plans. To be consistent with § 930.76(c), this change clarifies that it is Interior, not the person, that submits the consistency certification and information to the State for amended OCS plans.

There is a minor correction from the proposed rule. The term "confidential" is added at the end of § 930.82, because the phrase used throughout the regulations is "confidential and proprietary information."

**Rule Change 18:** § 930.85 Failure to substantially comply with an approved OCS plan. While this section existed

prior to the 2000 rule revisions, NOAA makes this change to more closely coordinate CZMA and OCSLA requirements. Under NOAA's regulations and the OCSLA program, it is MMS that determines whether a change to an OCS plan is "significant" and thus, whether the change requires CZMA federal consistency review. This determination should be the same for failure to substantially comply with an approved OCS plan. This change would be consistent with CZMA section 307(c)(3)(B), and in fact the language is taken directly from the statute. The previous language was developed in the 1979 regulations as a means of determining when a person has failed to substantially comply. However, CZMA does not provide authorization to NOAA to make such determinations, which should be made by MMS, pursuant to the OCSLA and MMS regulations. Also, to be consistent with § 930.76(c), this change clarifies that it is Interior, not the person, that submits the consistency certification and information to the State for OCS plans.

Three minor changes were made to paragraph (c) from the proposed rule with no change in meaning. Grammar was corrected in the first sentence by reversing "substantially to" to "to substantially" and "comply" was changed to "come into compliance." A third change was made to the second sentence to acknowledge the applicable process under Interior's regulations.

**Rule Change 19:** § 930.121(c) Alternatives on appeal. This provision was amended in the 2000 rule to address "confusion as to when alternatives may be raised, the consequences of a State agency not providing alternatives or [sic] when it issues its objection, and the level of specificity that the State agency needs to provide to satisfy the element on appeal." 65 FR 77151 (December 8, 2000). Implementation of this change has prompted NOAA to make several refinements in the language. The word "new" is struck to clarify that all information submitted to the Secretary during the appeal may be considered in determining whether an alternative is reasonable and available. The word "submitted" is substituted for the word "described" to reflect more accurately the manner in which information becomes part of the decision record of an appeal.

The last sentence is added to make clear that the Secretary does not substitute his judgement for that of the State in determining whether an alternative is consistent with the enforceable policies of the State management program. This is not a

change in standards or practice, only a clarification. As described in the 2000 rule, both the State and appellant and commenters on the appeal will be able to provide the Secretary with information concerning an alternative. The addition of this sentence, however, makes clear that no alternative, whether submitted to the Secretary by the appellant, the State, a third party, or identified by the Secretary will be considered by the Secretary unless the State submits a written statement that the alternative will allow the activity to be conducted in a manner consistent with the enforceable policies of the management program. Otherwise, the Secretary would be required to make a finding that the alternative is consistent with the management program and effectively substitute the Secretary's judgement for that of the State. The Secretarial appeals process does not review whether the proposed activity is consistent with the State's enforceable policies, but is a *de novo* consideration of whether a proposed activity is consistent with the objectives of the CZMA or otherwise necessary in the interest of national security. Therefore, the Secretary relies on the State to determine whether an alternative would allow the project to proceed in a manner consistent with the enforceable policies of the management program. If a State determines an alternative is consistent with its CMP and the Secretary does not override the State's objection to the proposed activity, then the applicant may pursue the identified alternative approved by the State without further CZMA review by the State.

A minor editorial change with no change in meaning was made from the proposed rule in the beginning of the third sentence.

**Rule Change 20:** § 930.123 Definitions. Section 930.123 previously defined only "appellant" and "Federal agency" for appeal purposes. The Energy Policy Act described three other terms related to CZMA appeals that NOAA will use in subpart H and need to be defined as well. These three terms are "energy project," "consolidated record," and "lead Federal permitting agency." The definition of "energy project" is broad to cover foreseeable energy facilities related to delivery of energy, e.g., electricity transmission, and development of energy resources, e.g., crude oil and natural gas. For example, energy project would include: nuclear power plants; offshore oil and gas exploration, development, and production facilities; natural gas pipelines; Liquefied Natural Gas (LNG) terminals; hydroelectric facilities; wind power facilities; wave and tidal energy

projects; ocean thermal energy conversion projects; where these projects would require a federal authorization under numerous federal statutes such as the Nuclear Energy Act, OCSLA, Natural Gas Act, Federal Power Act, etc.

The Energy Policy Act defined "consolidated record," and NOAA has adopted that definition in the regulations as the record of all decisions made or actions taken by the lead Federal permitting agency or by another Federal or State administrative agency or officer, maintained by the lead Federal permitting agency, with the cooperation of Federal and State administrative agencies, related to any federal authorization for the permitting, approval or other authorization of an energy project.

The term "lead Federal permitting agency" as used in the Energy Policy Act, is meant to apply to the Federal agency required to issue authorizations under the various energy-related statutes and which would be subject to a federal license or permit under subparts D or I, approval of an OCS plan under subpart E, or federal financial assistance under subparts F or I, of this part for an energy project.

**Rule Change 21:** § 930.125 Notice of appeal and application fee to the Secretary. In order to process an appeal within the time frames required by the Energy Policy Act, as described in § 930.130, changes are made to various sections (§§ 125, 127, 128, 129 and 130) to ensure that briefs, information, and public and Federal agency comment periods accommodate a restricted time period for developing the decision record and issuing a decision. These procedures will provide due process and fair opportunity for comment to all parties and the public.

Changes were made from the proposed rule. The changes are meant to further highlight that, given the 160-day deadline to close the decision record, a 60-day limit on a stay of the 160-day period, and a 60-75 day period to issue a decision after the decision record closes, the appellant's notice of appeal must, at least, raise all issues to be addressed. These issues can be further explored in the appellant's brief, but they must at least be raised in the notice of appeal in order to be considered by the Secretary.

NOAA also changed the deadline in paragraph (f) that an appellant must submit the appeal fee if the Secretary denies a fee waiver request from 20 days to 10 days. This change is necessary to meet the new appeal deadlines established by the Energy Policy Act. Otherwise, NOAA would likely have to

publish its 30-day notice of the appeal in the **Federal Register** before knowing whether appellant wanted to continue with the appeal.

**Rule Change 22:** § 930.127 Briefs and Supporting Materials. The changes in § 930.127 reflect changes in practice necessary to accommodate the time frames for the closure of the decision record in § 930.130 and to make the administration of the appeals process more efficient and transparent to the public, States and potential appellants. These changes will likely mean that States, appellants, Federal agencies and the public will have to be more diligent in providing thorough and complete information to the Secretary in a shorter amount of time. The changes allow each party and the public, in most cases, only one opportunity to provide their information and arguments to the Secretary. The changes reflect the fact that the Secretary needs only sufficient time and information to make a rational and well-reasoned determination of each of the elements in 15 CFR 930.121 or 930.122.

NOAA has retained the requirement from the proposed rule that the appellant's brief is due within 30 days of the filing of the notice of appeal and the State's brief will be due 60 days after appellant's filing of the notice of appeal. It was necessary to retain these time periods in order to meet the 160-day period established by the Energy Policy Act. In addition, NOAA provided a 20-day period for the appellant to file a reply brief to the State agency's brief. NOAA is including the appellant's reply brief, but not a reply brief from the State agency for the following reasons. It is standard appellate procedure and is predicated on the fact that the State agency's principal brief is a reply to the appellant's principal brief. Since the State agency may raise issues not addressed by appellant, appellant should be able to reply since appellant bears the burden of persuasion on the appeals. Further, NOAA's regulations do provide the Secretary with flexibility to require supplemental briefs if deemed necessary. Therefore, if a State agency wanted to reply to a particular matter raised in appellant's reply brief, it could request that the Secretary authorize such a brief.

NOAA has added new §§ 930.127(b) and (c). In paragraph (b) NOAA establishes page limits for briefs and in (c) a slightly different way for the appellant and State agency to organize the supporting documentation and material. By establishing an "appendix," as is done for judicial proceedings, the parties and the Secretary would have a common record

to cite to. These changes are provided to encourage the appellant and State agency to help the Secretary meet the deadlines established in the Energy Policy Act.

The change to § 930.127(f) would move language from § 930.130(d) regarding the appellant's burden to support its appeal. NOAA has removed language that was in the proposed rule regarding the State's burden of persuasion for alternatives. This is a minor change, since the proposed rule appeared to misstate the Secretary's long-standing practice in accordance with the Secretary's decision in *Korea Drilling Inc.* at 23 (1989) ("If a State describes one or more consistent alternatives in its objection, the burden shifts to the appellant. In order to prevail on Element [three], the appellant must then demonstrate that the alternative(s) is unreasonable or unavailable"). Thus, the State's burden regarding alternatives is described in sections 930.63(d) (describing alternatives with sufficient specificity), and 930.121(c) (determining if the alternative is consistent with the State's enforceable policies).

NOAA also amended paragraph (c)(1) to more clearly describe the content of the decision record and that the Secretary takes notice of the administrative decisions and records of the authorizing Federal agency, when the information is submitted to the Secretary's appeal decision record.

Paragraph (g) is amended to allow the Secretary to extend the time for submission, and length, of briefs and supporting materials for good cause.

NOAA has added paragraph (i) to comply with provisions in the Energy Policy Act specifying the content of the Secretary's decision record for energy projects, including projects requiring an authorization under section 3 or a certificate of public convenience and necessity under section 7 of the Natural Gas Act (15 U.S.C. 717b and 717f). The Energy Policy Act requires that the lead Federal permitting agency, with the cooperation of Federal and State administrative agencies, maintain a consolidated record of all decisions made or actions taken by the lead agency or by another Federal or State administrative agency or officer. The Secretary must use this consolidated record for CZMA appeals. The Secretary may supplement the consolidated record pursuant to CZMA section 319, as amended by the Energy Policy Act, and as described in § 930.130(a)(2) of this final rule. The Secretary may require any supplemental information specifically requested by the Secretary to complete a consistency review under

the CZMA, or any clarifying information submitted by a party to the proceeding related to information in the consolidated record compiled by the lead Federal permitting agency.

The intent of the Energy Policy Act and paragraph (i) is to provide a more efficient and less time consuming process to develop a decision record for CZMA appeals. Relying principally on the lead Federal permitting agency's consolidated record should help. NOAA has determined that in order to effectively and efficiently frame and evaluate CZMA arguments needed to decide the grounds for appeal described in § 930.121 for an appeal of an energy project, briefs required in § 930.127(a), (b) and (c) are required. This is consistent with Energy Policy Act requirements for the consolidated record. NOAA recognizes that the Energy Policy Act is a limitation on the Secretary's evidentiary record. NOAA does not believe such limitation includes appeal briefs. The consolidated record is the background materials and comments compiled as part of the lead Federal permitting agency, other Federal and State agency processes, and maintained by the lead Federal permitting agency. The CZMA appeal briefs are needed so appellants and State agencies can use the consolidated record and argue their case before the Secretary; otherwise, parties would not be able to argue their CZMA case. Moreover, the Energy Policy Act clearly expects CZMA appeals to be processed since it describes decision record deadlines. If no briefs were allowed there would be no reason to have any decision record deadlines for energy projects.

Further, in order for the Secretary to have sufficient time within the 160-day decision record period to evaluate the decision record, the appellant must submit the lead Federal permitting agency's consolidated record along with appellant's notice of appeal. NOAA has provided that, notwithstanding § 930.125(e), the Secretary, for good cause shown, may extend the time required for filing a notice of appeal for an energy project to allow appellant time to prepare the consolidated record for filing.

Finally, in keeping with the timeframes mandated by the Energy Policy Act, NOAA will not provide a public or Federal agency comment period for appeals of energy projects. The appellant, State agency, Federal agencies or the public may only submit supplemental materials when the Secretary requests such information after a determination that the information is needed pursuant to

§ 930.130(a)(2). Therefore, to have their views included in the consolidated record, interested parties should submit comments on energy projects when the lead Federal permitting agency provides such comment periods according to applicable Federal law, and through the State agency's CZMA review, including comments related to the CZMA and potential appeals to the Secretary.

*Rule Change 23:* § 930.128 Public notice, comment period, and public hearing. The changes to § 930.128 would accommodate the 160-day period to develop the decision record in § 930.130. Other changes promote clarity and efficiency in obtaining comments from the public and interested Federal agencies, and in processing the appeal. In addition, NOAA makes explicit the Secretary's practice of giving additional weight to a Federal agency's comments when the comments concern topics within the area(s) of the agency's technical expertise.

Other changes were made from the proposed rule. In paragraph (b), NOAA established a definitive 30-day comment period for both the public and Federal agencies. Pursuant to the requirements of the Energy Policy Act, NOAA will not provide a public or Federal agency comment period for appeals of energy projects. Supplemental public or Federal agency comment during the Secretary's review of an appeal for an energy project may only be provided if the Secretary determines such opportunity for comment is needed pursuant to § 930.130(a)(2). The 30-day comment period will be noticed in the Secretary's Notice of Appeal. This is needed to accommodate the 160-day period to develop the decision record. The Secretary will be able to provide a longer comment period, if necessary, pursuant to § 930.127. Minor edits were made to the last sentence of paragraph (c)(1) to be more precise about comments from Federal agencies. A minor change was made to paragraph (d) changing the time period from 45 days to 30 days for submitting a request for a public hearing. In addition, NOAA clarified that if a public hearing is held, the comment period shall be reopened and public and Federal agency comments must be submitted 10 days after the hearing. These changes will help the Secretary process appeals in a timely manner.

*Rule Change 24:* § 930.129 Dismissal, remand, stay, and procedural override. The additions to 930.129 accommodate the 160-day period to develop the decision record in § 930.130. Two changes were made from the proposed rule. In paragraph (c), NOAA deleted

the proposed language regarding "extending" the appeal process. By establishing the new 160-day period for closing the decision record, the Secretary would not "extend" the processing of the appeal beyond the 160 days, but would stay (or "toll" the running of) the 160-day period, pursuant to the stay provisions in § 930.130. In paragraph (d) NOAA removed the "20-day" period giving the Secretary more flexibility to determine the time period for remand back to the State during the 160-day period to develop the decision record.

*Rule Change 25:* § 930.130 Closure of the decision record and issuance of decision. NOAA's proposed 270-day period to develop the decision record, and the stays for NEPA and ESA purposes, were superceded by the Energy Policy Act. The provisions in § 930.130 now follow the wording of the Energy Policy Act. The section now provides 160 days as a definitive date by which the Secretary shall close the decision record in appeals filed from State objections under 15 CFR part 930, subparts D, E and F. The Secretary may stay the 160-day period for a period not to exceed 60 days: (1) If the parties mutually agree to stay the 160-day period or, (2) to ensure that the Secretary has any supplemental information specifically requested by the Secretary to complete a consistency review under the CZMA, or any clarifying information submitted by a party to the proceeding related to information in the consolidated record compiled by the lead Federal permitting agency. This could include relevant NEPA and ESA documents, if the Secretary determines that such information is needed to decide the appeal. NOAA continues to emphasize that if NEPA or ESA documents are needed, this does not mean that the Secretary would create NEPA or ESA documents for the appeal. The Secretary would only be seeking NEPA and/or ESA documents required for the Federal agency authorization or funding which is the subject of the appeal. The Secretary's action in deciding a consistency appeal does not require the preparation of environmental analyses pursuant to NEPA and ESA.

Other changes are made to more accurately track the existing statutory language. Minor grammatical edits were made from the proposed rule, with no change in meaning.

*Rule Change 26:* §§ 930.46(a)(3), 930.66(a)(3), 930.101(a)(3) Supplemental coordination for proposed activities. The changes to these sections were not in the proposed rule. However, these changes address



the objectives and proposed changes in the proposed rule to improve the clarity of the consistency process related to commencement of the States' review periods and changes to information needs. This change recognizes the fact that if a State concurs or concurrence is presumed, the concurrence is valid only for the activities and effects described by the Federal agency, applicant or applicant agency submitted to the State during the State's review. This change addresses the problem posed by a State concurrence for a project which was substantially changed during the State's review period, but the State was not privy to the change, the change would have coastal effects and the State has enforceable policies applicable to the change or its effects. The rule also reflects the importance of ensuring that the State is provided with timely notice of project changes and related information during the States review periods. This rule change does not apply to subpart E because amended OCS plans are already covered under § 930.82.

#### V. Comments Received by NOAA on the Proposed Rule

NOAA received 3066 comments on the proposed rule from the House of Representatives, the Senate, States, the Energy Industry, Environmental Groups, Federal agencies, and the public. Most comments strongly oppose any changes to NOAA's rules. NOAA appreciates these comments and understands, and agrees with, the concern that NOAA not "weaken" the federal consistency authority as provided in the CZMA and the 2000 rule. However, NOAA believes that neither the proposed rule nor this final rule affect a State's ability to review federal actions that have coastal effects. In addition, it is NOAA's view that the clarifications and improvements in this final rule do not change the agency's long-standing interpretation of the CZMA. NOAA carefully reviewed each comment in developing this final rule. Below are NOAA's responses to comments on the proposed rule. Comments 1-19 are general comments on the proposed rule. Comments 20-113 are comments on specific sections of NOAA's consistency regulations. A list of commenters by comment will be posted on OCRM's Federal Consistency Web site: [http://coastalmanagement.noaa.gov/czm/federal\\_consistency.html](http://coastalmanagement.noaa.gov/czm/federal_consistency.html).

#### General Comments

*Comment 1.* Overall, we feel that the proposed changes will go far to clarify the confusion which exists in the current regulations.

*Comment 2.* We find many of the changes to be worthwhile both in terms of clarity and streamlining the consistency process. In particular we note that many of the proposed changes are intended to speed the appeals process; we recognize the need, for all parties involved, for an efficient and predictable process. We support NOAA's rule modification and guidance to develop an expedited appeals process that is fair and equitable both to States and to applicants.

*NOAA Response to Comments 1 and 2.* NOAA notes these comments.

*Comment 3.* The proposed changes are inconsistent with, and fail to implement, the CZMA and would substantially weaken the States' abilities to safeguard their coastal resources. For example, the proposed changes would: —Make it more difficult for a State to obtain the information it needs to evaluate a proposed plan, and impose unrealistic deadlines for State review; —Reduce the weight given to a State's opinion on the application of consistency to a federal action; —Potentially exempt major proposals from State review, such as offshore oil and gas development, even though the projects may impact the coastal zone of the affected State; —Virtually eliminate States from the process of considering appeals from States' objections to CZMA approvals; and —Overturn recent Federal court decisions upholding States' authority to review certain Federal offshore oil drilling decisions.

Taken together, these changes would essentially strip the coastal States of any meaningful authority to control the ways in which their coastal areas are used. The proposed changes would turn the CZMA into a partnership between the Federal Government and oil and gas interests, to the detriment of coastal States. The proposed rule is a clear attempt to short-circuit procedures designed to ensure State participation in decision-making. The rule changes will strip States of an equal voice in decisions that could have significant adverse effects on local coastal communities and coastal resources. The proposed rules will, if enacted, do irreparable harm to this Federal-State partnership so effectively implemented during the past three decades. Therefore, we strongly urge you to withdraw the proposed rule changes.

*Comment 4.* There is no demonstrated need for these rule changes particularly when comprehensive consistency rule changes were approved just over two years ago. To the extent that changes are made, they must be targeted only to

address "limited and specific procedural changes or guidance" as called for in the ANPR and as needed to clarify offshore energy activity and siting information needs and deadlines. There is a danger, if not likelihood, that resorting to regulatory changes to "solve" perceived problems or to "clarify" well established language from current regulations will result in creating unforeseen conflicts, confusion, and possibly increase litigation. Ad hoc regulatory changes should be avoided and more resources should be dedicated to developing memoranda of understanding with the States, working with States and assisting agencies and applicants with understanding their consistency responsibilities.

*Comment 5.* For many years, this legislative delegation has fought off numerous attempts by government and private industry groups whose planned actions would have caused detrimental effects to the water quality of the Atlantic Ocean, the ocean floor, the air above and our shoreline. New Jersey's tourism industry, as well as our overall environment, would suffer greatly if the Federal Government would allow the oil and gas industries to explore our ocean waters. We share the Federal Government's desire for this great nation to be less dependent on foreign oil, but not at the high price of ocean and coastal water quality. We strongly urge NOAA to withdraw the proposed changes that would expedite the issuance of permits to those who would ravage our ocean waters and shorelines. Reducing the review time which States and local governments have to properly and thoroughly investigate ocean drilling applications would certainly send the wrong signal to citizens of the United States of America, as well as the entire world, that the USA is a rubber-stamp for energy interests, not for its citizens nor its natural beauty.

*NOAA Response to Comments 3, 4 and 5.* NOAA concludes that the changes in the final rule do not, in any way, change the authority granted to States to review Federal actions affecting the coastal zone. Neither do the changes short-circuit procedures, reduce the State review period or otherwise diminish the ability of States, or other interested parties, from participating in the Federal consistency process as provided for in NOAA's 2000 rule and the Energy Policy Act. The CZMA State-Federal partnership is strengthened by bringing greater clarity, transparency and predictability to NOAA's CZMA regulations.

In drafting the proposed rule and in issuing this final rule NOAA has carefully sought to avoid upsetting the



long-standing, basic tenets of Federal consistency. State CZMA review authority is, and has always been, centered on a Federal agency activity or Federal license or permit activity having coastal effects. The rule changes steadfastly retain this "effects test"; continues to emphasize early coordination between Federal agencies, applicants and States; maintains the time frames for State review; further emphasizes the ability of States to define information needs specific to their State; does not exempt any Federal action from the "effects test"; does not significantly alter the States' ability to participate in appeals to State objections; and is fully consistent with recent Federal court decisions.

While NOAA completed a comprehensive rulemaking in 2000, NOAA determined that some targeted improvements could be made based on the Energy Report and comments received on the ANPR questions. Some of the improvements addressing these issues, while initiated to respond to energy matters, will improve the consistency process in general, while other changes affect only the OCS subpart of the regulations.

*Comment 6.* CZMA section 307(c) has evolved into a program that, in many States, is used to "regulate" Federal activities through the consistency review process.

*NOAA Response to Comment 6.* The CZMA does not authorize States to regulate Federal agency activities. States may review Federal agency activities with reasonably foreseeable coastal effects and concur with or object to an activity, but the CZMA does not give the States any regulatory or enforcement authority over Federal agencies.

*Comment 7.* NOAA has made some progress in clarifying the ambiguities of the 2000 final rule. However, because of the great degree of latitude given States in interpreting what are reasonable and practicable information needs, Corps project managers are having difficulty meeting navigation project maintenance schedules established by the Congress through the budget process, while complying with coastal zone management programs. The fundamental question for Corps operations and maintenance activities becomes one of how, rather than whether, the project can be accomplished. Often, Federal agencies have little discretion to modify projects re-authorized by the Congress through the annual budget process.

*NOAA Response to Comment 7.* The comment demonstrates the need for Federal agencies and States to coordinate as early as possible in the

planning of a Federal agency activity. Early coordination and identification of applicable State CMP enforceable policies should help determine what measures, if any, need to be taken so that the activity is consistent with the State policies. If a Federal law provides little discretion to modify a Federal agency activity, then the Federal agency should be better able to demonstrate that it is consistent to the maximum extent practicable.

*Comment 8.* We concur with NOAA's changes and explanations for § 930.31(a) (Federal agency activity); § 930.35(d) (general negative determination); § 930.51(a) (Federal license or permit); § 930.58(a)(1) (Necessary data and information); and subpart H (Appeals to the Secretary).

*NOAA Response to Comment 8.* NOAA notes this comment.

*Comment 9.* NOAA should clarify its response to General Comment 3 in the proposed rule regarding Virginia's statement describing information needs related to Virginia's Chesapeake Bay Preservation Act Program.

*NOAA Response to Comment 9.* In the proposed rule NOAA informed the State that for Federal license or permit activities under 15 CFR part 930, subpart D, the State could amend its program to require that the detailed maps and delineation of Chesapeake Bay Preservation Areas on non-Federal lands be included as "necessary data and information," pursuant to 15 CFR 930.58(a)(2). NOAA emphasizes that this is only for Federal license or permit activities and does not apply to required information for Federal agency activities. Thus, a Federal agency could not be required to provide this information to Virginia for a Federal agency activity. For Federal agency activities, a Federal agency is only required to provide the information described in 15 CFR 930.39, necessary to support its consistency determination. Since the CZMA does not grant States authority to regulate activities on Federal lands, there would be no Chesapeake Bay Preservation Areas to delineate on Federal lands located within Virginia.

*Comment 10—Geographical Considerations.* The rule does not make any revisions regarding the identification of offshore projects having reasonably foreseeable coastal effects. Considering NOAA's repeated observations that State reviews of OCS projects at distances far from a State's coastline would entail "case-by-case" consideration, API believes it would be inappropriate for NOAA to ever allow a State to amend its program to automatically include such a general

geographic area of review. The right of such review, if ever justified by actual "effects," should be confined instead to a case-by-case consideration under the procedures provided in 15 CFR 930.54 (review of unlisted activities). We urge NOAA and MMS to implement an MOA process whereby objective criteria can be employed to determine what are "reasonably foreseeable effects."

*NOAA Response to Comment 10.* NOAA continues to believe that a regulatory change is not needed to address State review of OCS plans located far offshore. As discussed in the proposed rule, such conflicts are isolated examples and can be dealt with on a case-by-case basis should an issue arise. A new regulatory process to determine when an OCS plan will have reasonably foreseeable coastal effects on a particular State would likely increase administrative and fact-finding burdens on industry, the States and Federal agencies. Finally, the case-by-case nature of Federal consistency review precludes rigid definitions of effects and what is reasonably foreseeable. 65 FR 77130, 2d col. (Dec. 8, 2000).

The determination of coastal effects for Federal license or permit activities is made by NOAA through the listing and geographical location description requirements in NOAA's regulations at 15 CFR 930.53. Each State must list the Federal license or permit activities it believes will affect its coastal uses or resources. The list becomes part of the State's management program development and may be revised through NOAA's program change procedures. See 15 CFR 930.53(c), and 15 CFR part 923, subpart H. When listing Federal license or permit activities, States must demonstrate whether the activity to be listed would have reasonably foreseeable coastal effects, when conducted inside the coastal zone. Once listed in the State's federally approved program, all applications for the listed Federal authorizations in the coastal zone are automatically subject to the consistency process.

States interested in reviewing activities located outside the coastal zone must provide to NOAA for approval a description of the geographic location outside its coastal zone where activities will be presumed to have coastal effects. Federal agencies and other interested parties may comment to NOAA during the approval process. NOAA's approval is based on whether effects on the coastal zone from the described geographic area are reasonably foreseeable.

A State may also review a listed activity located outside the coastal zone

that is not in a described geographic location as an "unlisted" activity on a case-by-case basis, pursuant to 15 CFR 930.54. NOAA's approval is required and is based on whether coastal effects of the proposed activity are reasonably foreseeable.

The purpose of these listing requirements is to provide predictable procedures to determine when a Federal license or permit activity is subject to CZMA Federal consistency review. These procedures have been in place since 1979 and provide reasonable notice to Federal agencies and applicants for Federal authorizations as to when and how Federal consistency applies.

The geographic location description requirement for Federal license or permit activities has not been used for Federal authorizations described in detail in OCS plans when coastal effects are reasonably foreseeable because these activities are specifically described in the CZMA. 16 U.S.C. 1456(c)(3)(B). In the past, most OCS oil and gas plans were for projects located near shore and coastal effects were readily identifiable. Now, however, technology allows oil and gas projects to be located far offshore and the connection between a project and its effects on a State's coastal uses or resources is less certain. In cases where a person demonstrates that its project will not have coastal effects and the State disagrees, then the question of whether the "effects test" is met can be resolved through the mediation provisions of the CZMA, OCSLA provisions and/or litigation. Of course, this does not preclude the ability of a State to seek NOAA approval to describe an offshore area for OCS plans under § 930.53, or request to review a project as an unlisted activity under § 930.54.

*Comment 11—Geographical Considerations.* The rule overlooks the distinction made in the legislative history of the 1990 amendments between Congress's focus on the reversal of the *California v. Watt* decision and the expansion of State review of Federal agency activity to include lease sales, and the corresponding recognition by Congress that there would be no change in the status quo for State review of private permitting activity. We continue to take issue with NOAA's reading of the Congressional history of the 1990 amendments and Congress's various "endorsements" of NOAA's consistency policies at that time.

*NOAA Response to Comment 11.* NOAA disagrees. The 1990 CZMA amendments apply to all the consistency requirements. The

"technical amendments" were to conform all of CZMA section 307 with the changes made to CZMA § 307(c)(1). Moreover, "direct" effects were not a limiting factor to the pre-1990 CZMA application of Federal consistency for Federal license or permit activities—the "effects test" was always the controlling factor. The Conference Report contains authority for NOAA's position, which is also supported by the discussion in the September 26, 1990, Congressional Record, incorporated by reference into the Conference Report.

*Comment 12—Geographical Considerations.* Earlier comments to the ANPR also questioned NOAA's revisions to the definition of a "coastal use or resource" within 15 CFR 930.11. NOAA has taken no specific action to remedy this overbroad definition and in the proposal does not acknowledge that adding terms such as "scenic and aesthetic enjoyment" broadens this definition, and thereby inappropriately expands the reach of the effects test.

*NOAA Response to Comment 12.* The definition of coastal use or resource did not create new thresholds, but is based on the effects test as described in the CZMA and the Conference Report for the CZMA 1990 amendments. See 65 FR 77123–77133 (Dec. 8, 2000).

*Comment 13—Secretarial Appeal Criteria and Past Secretarial Appeal Decisions.* In the June 11th notice, NOAA comments that the term "development" was used as a "general descriptor for OCS oil and gas activities", and further, that: "[a]t this time, NOAA cannot foresee a case where OCS oil and gas activities do not further the national interest in a significant or substantial manner, inclusive of the exploration, development and production phases." While NOAA's comment is a positive statement, its position is still modified by the critical words "[a]t this time," and remains in marked conflict with the precedential finding in the *Manteo* Secretarial override decisions that an OCS exploration plan targeting a potential natural gas reserve of 5 trillion cubic feet—which would constitute the largest find of domestic hydrocarbons since Prudhoe Bay—would make only a "minimal" contribution to the national interest. Because this inconsistency cannot be reconciled, the particular *Manteo* findings should be formally rescinded by the Secretary of Commerce in order to conform to NOAA's current articulation of CZMA national policy. Although Interior officials were quoted as describing the *Manteo* EP as the *most comprehensive exploration plan* prepared in the history of the U.S. offshore program, the Secretary refused

to override based on the State's "lack of information" contentions. This experience seems to belie NOAA's insistence found elsewhere in its June 11th notice that the Secretary has given, and will continue to give, particular deference to comments from agencies with expertise over the activities which are the subject of the override appeals.

*NOAA Response to Comment 13.* NOAA maintains that, at this time, it cannot foresee a case where OCS oil and gas activities do not further the national interest in a significant or substantial manner. NOAA cannot, however, say that this will always be the case or will be the case in any particular situation. NOAA can only speak, as a general matter and to the foreseeable future. As for the *Manteo* decision, all Secretarial appeal decisions are made on a case-by-case basis and rely on the record developed for that case. NOAA does not anticipate that the Secretary will reexamine the *Manteo* decision. Further, as discussed in response to comment 100, the Secretary gives the expert Federal agency's view more weight in the areas of its technical expertise than the views of other commenting Federal agencies. NOAA reiterates that each Secretarial decision is based on its individual decision record and evidence in that record may controvert an agency opinion.

*Comment 14.* API supports NOAA's acknowledgment of its responsibility under the President's National Energy Policy (NEP) to promote coordination between NOAA and MMS in OCS energy development. We believe, however, that the agency should more fully implement the requirement that the Departments of the Interior and Commerce work together to solve interagency conflicts and develop mechanisms to address differences in the OCSLA and the CZMA. API reiterates that any revisions to the Federal consistency process should incorporate a permanent mechanism for close consultation and coordination between NOAA and MMS such as a formal Memorandum of Agreement (MOA). The MOA could outline the respective responsibilities of the two agencies, institute procedures for ensuring decisions consistent with national energy policy and explain how each agency would meet the objectives of the NEP and Executive Order 13211, on streamlining energy project permitting, (Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use, May 18, 2001), and Executive Order 13212 stressing the importance of assessing impacts of government decisions on energy supplies (Actions to

Expedite Energy-Related Projects, May 18, 2001).

*NOAA Response to Comment 14.* As described earlier, this rulemaking is designed to address the CZMA recommendations in the Energy Report. Specifically, that report directed the Secretaries of Commerce and Interior to "re-examine the current Federal legal and policy regime (statutes, regulations, and Executive Orders) to determine if changes are needed regarding energy-related activities and the siting of energy facilities in the coastal zone and on the Outer Continental Shelf (OCS)." Energy Report at 5-7. This rulemaking similarly implements Executive Order 13212, which mandates that "agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protections." NOAA is also coordinating with the President's Council on Environmental Quality on implementation of this Executive Order. Executive Order 13211 requires that agencies prepare and submit a Statement of Energy Effects to the President's Office of Management and Budget for certain actions, and NOAA continues to comply with this requirement when applicable. (Please see the Classification section, below.)

Neither executive order has created a need for a separate MOU with Interior or with other Federal agencies. An MOU is not necessary between MMS and NOAA on CZMA-OCSEA interaction, as the agencies have already established an interagency working group and policy decision group to facilitate interagency coordination concerning the CZMA and OCSEA. NOAA will maintain this effective arrangement.

*Comment 15.* We question NOAA's characterizations in its June 11th notice of the widespread success of the CZMA consistency process in the review of OCS activity. NOAA's statements do not make clear that the scope of offshore activity since 1990—and for that matter since the mid-1980s—has been severely curtailed. Indeed, the "offshore statistics" promoted by NOAA have been overwhelmingly generated by activities mainly occurring offshore Texas, Louisiana, Mississippi, and Alabama—four States with combined coastlines barely exceeding seven per cent of the length of the entire coastal shoreline of the continental United States. It cannot be accurately represented that the CZMA consistency review process for OCS activity serves the national interest unless and until that process is realistically employed and tested against offshore activities proposed to be conducted off of the East

and West coasts—where, indeed, quite heated consistency battles have occurred in the past. Certainly, there are no "flourishing" OCS operations along coastal North Carolina, Florida, California, or New England.

*NOAA Response to Comment 15.* The CZMA requires States to consider the national interest when developing their management programs. When approving State programs and when evaluating proposed changes to State programs NOAA carefully considers elements of management program that may affect the national interest, particularly in energy facility siting. There is a large offshore oil and gas presence in the Gulf, and thus, statistics from MMS are undoubtedly representative of the OCS activities in the Gulf. However, OCS EPs and DPPs have been regularly approved off Alaska and California as well. Even after the Supreme Court's decision in 1984 that OCS lease sales were not subject to Federal consistency review, California found that most of the 150 or so wells associated with the Court's decision were consistent with the State's CMP. In addition, in the limited instances where a State has raised a CZMA objection, the Secretarial appeals process provided an appropriate remedy. Thus, the CZMA does support the national energy policy. Moratoria that currently preclude OCS oil and gas exploration in offshore areas are the result of Executive Orders or congressional enactments, and do not result from the CZMA.

*Comment 16.* Rule changes should not be based on unseen information. The preamble states that the proposed rule will implement recommendations of the Energy Report prepared by the National Energy Policy Development Group that was established by Vice President Cheney. The process that led to the preparation of the Energy Report often was not a public process and, indeed, the United States Department of Energy still refuses to release many of the documents that were created for and considered by the Task Force. If the recommendations of the Energy Report are to be the basis for the rule amendments, then all documents and records relevant to the Energy Report's preparation and recommendations must be made available to the public as part of the public docket for this rulemaking action and the comment period must be extended to afford members of the public an opportunity to review and comment on this information and evidence. The County is particularly interested in any documents that detail the need for the changes to the NOAA regulations that are now being proposed. For NOAA to proceed

without disclosing such documents will be in violation of the Federal Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

*NOAA Response to Comment 16.* NOAA's rulemaking implements the recommendations stated in the publicly available Energy Report (<http://www.whitehouse.gov/energy/index.html>). The rulemaking is not based on any particular information underlying the Energy Report. NOAA has developed its own administrative record to support this rulemaking. That record includes the ANPR, which asked what changes, if any, should be made in response to the Energy Report recommendations. In addition, the proposed rule sought public comment on NOAA's proposed changes. This final rule is based on public comments to the proposed rule and NOAA's analysis of its administrative record.

*Comment 17.* The preamble to the proposed rule says that in certain instances, OCS oil and gas lease sales may not affect the coastal zone, thereby suggesting that there will be a case-by-case review of whether lease sales require a consistency analysis. The County's position is that, given the impacts eventually caused by the development that follows lease sales, it will always be reasonably foreseeable that such lease sales will adversely affect the coastal zone in a manner that will require a consistency review. The development implications of lease sales are far too great to ever support a finding that they would have no adverse impact on the coastal zone.

*NOAA Response to Comment 17.* All Federal agency activities are subject to the effects test. The CZMA does not obligate MMS to automatically provide States with a consistency determination for all OCS lease sales, but, rather, requires that MMS determine whether a particular lease sale will have reasonably foreseeable coastal effects. If MMS determines coastal effects are reasonably foreseeable, it must provide the affected State(s) with a consistency determination.

*Comment 18.* In *Skokomish Indian Tribe v. Fitzsimmons*, 97 Wn. App. 84, 982 P.2d 1179 (1999), the Washington Court of Appeals invalidated the Department of Ecology's "waiver" of its right to object to the City of Tacoma's consistency certification, while simultaneously objecting to the adverse coastal effects of Tacoma's proposed hydroelectric license for the Cushman Dam project. The court held that a State CMZA agency illegally "renders meaningless" the federal and State CZMA regulatory schemes, when it "choose[s] not to follow procedures

prescribed by law to ensure" that federally licensed projects comply with State CZMA laws. *Id.* at 95. The Washington Supreme Court unanimously denied Ecology's petition for review. 143 Wn.2d 1018 (2000). NOAA's proposed rule must incorporate this principle, which (1) is fully consistent with the CZMA, and (2) carries out NOAA's desired effect in its rule change of providing greater "transparency and predictability" to the federal consistency regulations. First, NOAA should amend its rules to clarify that State agencies must either *clearly* concur (through express statement or by complete silence) or object to consistency certifications. Second, the rules must clarify that State CZMA agencies cannot expressly waive their CZMA rights if they have previously raised objections regarding coastal impacts that the proposed license does not address. Third, the rules must expressly acknowledge NOAA's and the federal licensing agency's respective duties to actively inquire into the legality of a State CZMA concurrence or objection that circumvents or contradicts the CZMA's goals and procedures, before the six month window closes. Fourth, the rules must provide an appeal and/or mediation mechanism for the licensing agency, NOAA, and the participating public to challenge illegal State maneuvers.

*Comment 19.* NOAA should adopt regulations to provide a mechanism for applicants to invoke NOAA's intervention and effective oversight during consistency review if a State attempts to request information beyond what is specified in NOAA and MMS requirements.

*NOAA Response to Comments 18 and 19.* A rule change is not needed to address this issue as the current rules provide sufficient guidance. NOAA agrees that States cannot expressly waive their consistency responsibilities. The State has an obligation to enforce its federally-approved CMP and to provide public input into those decisions. The preamble to the 2000 final rule discussed at length the requirement that States implement their programs and to conduct federal consistency reviews. See 65 FR 77126-77127 (Dec. 8, 2000). Likewise the 2000 rule discussed the need for States to either concur with or object to a proposed activity for which a State received a consistency certification (or concur with conditions pursuant to § 930.4).

NOAA and the authorizing Federal agency do not, however, have the authority to dictate to a State its interpretation of its own State law. Thus, a new CZMA appeal process

cannot be developed to challenge "illegal State maneuvers." If there is a CZMA procedural issue, any party can raise the issue to NOAA and NOAA may offer its views on the CZMA and its implementing regulations. See 15 CFR 930.3. The CZMA does not grant NOAA enforcement authority to override a State's decision during the six-month review period. NOAA can require the State to take corrective actions as part of the CZMA section 312 evaluation process and/or the Secretary can override a State's objection on procedural grounds if a State's objection is appealed to the Secretary.

#### Section Specific Comments

##### *Section 930.3—Review of the Implementation of the Federal Consistency Requirement*

*Comment 20.* We continue to propose that NOAA should undertake a more active review of State programs than the current three-year rotation undertaken pursuant to 15 CFR 930.3, and specifically suggest that such review should be conducted on a semi-annual basis. NOAA asserts that it does not review the validity of the State's underlying objection in a consistency appeal, but rather in a State program review. NOAA's "de novo" approach to appeals does not include a review of the underlying State's objection should be reevaluated in light of NOAA's statements regarding resource constraints NOAA says it faces in conducting section 312 program reviews. An important oversight function of the statutory scheme is not being effectuated, if the State's manner of carrying out their consistency responsibilities is not undergoing thorough review under section 312, as well as not reviewed as part of the consistency appeal process.

*NOAA Response to Comment 20.* As discussed in the proposed rule, the CZMA section 312 evaluation process is the primary means for NOAA to review State programs. When conducting these reviews, NOAA, among other things, evaluates the State's use of federal consistency. As for the Secretarial appeals, the CZMA specifically sets out the criteria for override. In addition, the Secretary reviews State procedural compliance as an aspect of the appeal process, e.g., did the State meet the statutory and regulatory time frames. Additional oversight can be, and often is, provided on a day-to-day basis when a Federal agency, State or applicant bring a specific consistency issue to the attention of NOAA. NOAA may then investigate the matter and either provide

its view or seek to mediate an agreement.

##### *Section 930.4—Conditional Concurrences*

*Comment 21.* The proposed rules do not address the States' use of conditional concurrences. We would like OCRM to clarify in the regulations that conditional concurrences are simply not contemplated under the CZMA.

*NOAA Response to Comment 21.* NOAA determined in the 2000 rule that conditional concurrences were allowable under the CZMA within certain parameters. NOAA's regulation, § 930.4, contains adequate standards to ensure State conditions are based on specific enforceable policies. If the requirements for a conditional concurrence are not met within the six-month review period, then the State decision is automatically treated as an objection. For instance, if an applicant does not agree with a condition and does not amend its application to the Federal agency, then the State decision is automatically an objection. Likewise, if a Federal agency finds a condition is contrary to its statutory mandate and refuses to accept the condition, then the State decision is automatically an objection. The benefit is that it allows a State to concur when it might otherwise object. If the conditions are acceptable to the applicant and the Federal agency, then the Federal agency can approve the project. All elements of the conditional concurrence process must be completed prior to the expiration of the State agency's review period. If each element in the conditional concurrence process is not complete prior to the expiration of the State's review period, the conditional concurrence becomes an objection automatically. NOAA's regulations, section 930.4(a)(1-3), set forth each element necessary to make the conditional concurrence effective. First, the State agency must state in its concurrence letter each of the conditions to be met and identify and explain how and why each condition is necessary to satisfy the enforceable policies of the State's CMP. Second, the Federal agency (subpart C) or applicant (subpart D, E, F or I) must change or modify its proposed activity, application or plan to incorporate and satisfy the conditions set forth in the concurrence letter. Third, the Federal agency (subparts D, E, F or I) must approve the amended application or amend its approval to include the conditions set forth in the concurrence letter. If these three elements are not satisfied within the State agency's review period, the State's conditional



concurrence letter automatically becomes an objection and the State's concurrence is not presumed pursuant to CZMA section 307(c). Thus there is no delay in the six month review period and there is clear direction regarding time frames, the substance of the conditions and whether the State has objected or concurred.

If a State agency issues a conditional concurrence under subpart D, but there is no response from the applicant and/or the authorizing Federal agency within the six-month review period, then the State's conditional concurrence automatically becomes an objection. If a State agency issues an objection within the six-month review period, then subsequently issues a conditional concurrence, the State's original objection remains in effect and the Federal agency cannot issue its authorization unless the objection is withdrawn by the State agency (or the Secretary, on appeal by the applicant, overrides the State's objection). A conditional concurrence letter issued subsequent to an objection letter after the six-month review period has expired has no effect upon the objection.

For purposes of an appeal to the Secretary pursuant to CZMA section 307(c)(3), an applicant's time to file a notice of appeal (or person's under subpart E or applicant agency's under subpart F) begins under one of the following three scenarios: (1) 30 days after receipt of the State agency's conditional concurrence if the applicant does not agree with the conditions; (2) 30 days after receiving notice from the Federal agency that the application for the approval as amended to meet the State agency's conditions is not approved; or (3) 30 days after the end of the State's six-month review period if neither the applicant nor the Federal agency respond to the conditional concurrence within the six-month review period.

*Section 930.11(g)—Definitions—Effect on Any Coastal Use or Resource*

*Comment 22.* We believe that the proposed change is unusually complicated and therefore oppose it. We suggest that because OCRM proposes to move the definition of "federal action" to § 930.1(b), the use in § 930.11(g) of the previously defined term "federal action" would be sufficient. As drafted, the language is confusing because it appears to use two distinct phrases, *i.e.* "federal action" and "Federal agency activity or federal license or permit activity" to refer to the same thing.

*NOAA Response to Comment 22.* Federal agency activity and federal license or permit activity are well-

defined terms in the regulations and should pose no confusion. NOAA believes that in this particular section using the more specific terms as opposed to the general "federal action" term is more appropriate.

*Section 930.31(a)—Federal Agency Activity*

*Comment 23.* This section is all-inclusive and could mean "any" Federal agency activity. We do not believe the Congress intended for routine maintenance or other non-consequential activities to be subject to State consistency review. The language as proposed could give States authority to determine colors of paint for Government buildings or where Government employees might park on government property, for example. At subsection 930.51 of the proposed rule OCRM defined certain categories of federal license and permit activities that do not meet the test for requiring consistency determinations. Similar language should be included in this proposed subsection as well.

*NOAA Response to Comment 23.* This final rule does not identify categories of federal license or permit activities that are exempt from consistency. NOAA emphasizes, again, that the effects test is the determinative factor. Congress clearly intended for "Federal agency activities" to be interpreted broadly. NOAA did clarify in the proposed rule and in this final rule that a Federal agency activity is a proposal for action that has coastal effects. This is discussed in detail above. This clarification is not a new standard, but emphasizes long-standing agency interpretation.

*Comment 24.* The proposed section's recitation of a "plan" as an example of an action requiring a consistency analysis would introduce considerable ambiguity into the interpretation of the regulations. A "plan" can be many things to many people, as can something that "direct[s] Federal agency action." As a practical matter, any proposal would have to have a certain degree of specificity in order for a meaningful coastal consistency analysis to be undertaken at all. The revised rule's proposed language of "proposal for action which initiates an activity or series of activities \* \* \*" adequately captures those plans that would be ripe for analysis. Accordingly, the planning example should be stricken from the rule as revised. If NOAA believes it is necessary to retain the current language in the rule, the following statement should be added to the preamble discussion of the Navy pier project on page 34855 of the **Federal Register**,

following "The Federal agency activity for purposes of 15 CFR 930.31 is the proposal to build the pier." (add): "Until this activity is sufficiently concrete to require analysis under the National Environmental Policy Act, it is not subject to a consistency determination."

*NOAA Response to Comment 24.* Plans have always been included in the definition of Federal agency activity. The retention of plans as a Federal agency activity does not add ambiguity and the revisions to this section make the application of consistency to plans more clear. As described above in the explanation for the changes to this section, some federal plans will be used to initiate a proposal for action and some federal plans will be part of the Federal agency's pre-decisional deliberations and not be subject to federal consistency. NOAA cannot add the suggested sentence to the preamble since the application of NEPA is not necessarily a trigger for federal consistency. However, NOAA has added the following two sentences to the Navy example in the explanation for rule change 4: "Under 15 CFR 930.36(b), the Federal agency determines when it has sufficient information to provide the State with a consistency determination. For instance, in this example of the Navy pier, the Navy could conclude that under Navy procedures the pier is not a proposed action until the proposed activity requires analysis under NEPA."

*Comment 25.* The proposed changes would narrow the definition of federal activities. The addition of the phrase "makes a proposal for action" is troublesome since it could reduce the type of federal activity which may be subject to review for consistency. In the preamble, NOAA explains that the change is intended to eliminate review of pre-decisional activities such as planning documents. However, the explanation goes on to mischaracterize the recent Ninth Circuit Court of Appeals decision, *State of California v. Norton*, 311 F.3d 1162 (9th Cir. 2002), in which the Court embraced a broad definition of federal activities subject to federal consistency review. The change appears to be a thinly veiled attempt to eliminate review of certain activities, such as lease suspensions, in direct contravention of the Ninth Circuit's decision. NOAA characterizes such federal activities as interim or preliminary and thus not rising to the level of a federal activity for purposes of consistency review. The Ninth Circuit expressly rejected the argument that lease suspensions do not grant new rights or authority and are merely ministerial. The Court held that the



lease suspensions are discretionary and their approval involves the exercise of judgment and implicates policy choices. Because the decision to extend leases through the suspension process is discretionary, it does grant new rights to the lessees when, absent the suspensions, all rights would have terminated. (*State of California v. Norton*, *supra*, at p. 1173, fn. 6.) The proposed change is also contrary to Congress's express statement in the 1990 amendments in which Congress unequivocally stated its intent to adopt a broad interpretation of federal activity subject to consistency review. NOAA should not undermine Congressional intent by adopting a crabbed interpretation of Federal agency activity.

*Comment 26.* NOAA is not required to adopt a decision of the Ninth Circuit (*California v. Norton*) and extend such decision nationwide.

*NOAA Response to Comments 25 and 26.* On June 20, 2001, the U.S. District Court for Northern California ordered Interior to provide California with a consistency determination pursuant to CZMA section 307(c)(1) for the lease suspensions it issued for 36 leases located offshore California. *California ex rel. Cal. Coastal Comm'n v. Norton*, 150 F. Supp.2d 1046 (N.D. Cal. 2001), *aff'd*, 311 F.3d 1162 (9th Cir. 2002). The Court also ordered Interior to provide, pursuant to NEPA, a reasoned explanation for its reliance on a categorical exemption for the lease suspensions. On appeal by the United States, the Ninth Circuit affirmed the District Court's finding that the lease suspensions, in the case of these 36 leases, whether granted or directed by Interior, were Federal agency activities under CZMA section 307(c)(1), and not "federal license or permit activities" under CZMA section 307(c)(3)(A). The Ninth Circuit found that the suspensions allowed the leases to continue for lengthy additional terms and, more importantly, these leases had not been previously reviewed by California under the CZMA. The Court viewed the suspensions as an extension of the leases and thus any suspension of the lease was, in the Court's view, a Federal agency activity under CZMA section 307(c)(1). The Ninth Circuit further found that the lease suspensions at issue would have coastal effects since, among other things, the suspensions required lessees to engage in certain milestone activities which could affect coastal resources. The Ninth Circuit also determined that the effect of the 1990 amendments to the CZMA in overturning the decision of the Supreme Court in *Secretary of the Interior v. California*, 464 U.S. 312

(1984), is that lease suspensions are not subsidiary to exploration plans and development and production plans (and thus are not barred from consistency review by CZMA section 307(c)(3)(B)), and that activities with coastal effects preceding exploration plans and development and production plans are subject to consistency review. In making this finding, the Ninth Circuit stated:

In subjecting lease sales to consistency review, Congress has made it clear that the statute [CZMA] does not prohibit consistency review of federal agency activities that are not subsidiary to exploration and development and production plans. The exploration and development and production plan stages are *not* the only opportunities for review afforded to States under the statutory scheme.

Referring to the fact-specific inquiry necessary to determine whether a federal action has coastal effects and, thus, is subject to federal consistency review, the Ninth Circuit, quoting from the preamble to NOAA's 2000 rule, agreed "with the reasoning of the National Oceanic and Atmospheric Administration that a lease suspension or set of lease suspensions might "affect the uses or resources of the State's coastal zone, and thus CZMA bars \* \* \* categorically exempting suspensions from consistency [review]."

As described above in the explanation of the changes to § 930.31(a), and elsewhere in this preamble, NOAA has not altered the consistency effects test nor has it altered the long-standing application of federal consistency to Federal agency activities. The revisions to the definition in no way narrow or limit the types of Federal agency activities subject to review. The changes more clearly state the long-standing NOAA interpretation of this section: that consistency applies to proposed activities and not to what a Federal agency might be thinking about doing. Likewise, the change does not eliminate planning activities from the "effects test." Indeed, the preamble to the proposed rule and this final rule clearly state that some planning activities will be used by Federal agencies to propose an action with coastal effects and at other times the planning activities will not, but will be part of an agency's deliberative process to determine whether it will propose an activity. The definition of Federal agency activity articulated by the Ninth Circuit is not affected by these changes.

NOAA's view and the changes in this final rule are consistent with the Ninth Circuit's decision. NOAA is not exempting lease suspensions from consistency review and is not determining whether the lease

suspensions at issue in *California v. Norton* are subject to consistency review.

The heart of the Ninth Circuit's decision is that lease suspensions cannot be categorically exempt from CZMA review. Applying the CZMA "effects test," the Ninth Circuit found that the 36 lease suspensions at issue had coastal effects. It is NOAA's view that the Ninth Circuit's coastal effects determination is limited to the 36 leases in that case. NOAA believes that in all other foreseeable instances, lease suspensions would not be subject to federal consistency review since (1) they do not generally authorize activities with coastal effects, and (2) if lease suspensions did result in activities with coastal effects, they should be addressed in a State's consistency review of the lease sale, EP or DPP.

*Comment 27.* In its earlier ANPR comments, API pointed out that NOAA's previous remarks treating MMS activities such as five-year leasing plans as potential "Federal agency actions subject to consistency review" were not only inconsistent with CZMA legislative history, but also an incorrect application of the definition of "Federal agency activity." API notes that NOAA has receded from this position and acknowledges that MMS pre-leasing activity is typically more in the nature of preliminary or interim agency action not considered to have reasonably foreseeable coastal effects. API also notes NOAA's recognition in its June 11th notice that application of the "effects test" for purposes of Federal agency consistency determinations is to be conducted by that particular Federal agency. API supports NOAA's articulation of consistency review policy on this issue. API also supports NOAA's deference to an MMS determination that lease suspensions should be considered "interim activities" having no coastal effects.

*NOAA Response to Comment 27.* NOAA has not "receded" from previous and long-standing interpretations of Federal agency activity. NOAA's preamble to the proposed rule reported that Interior informed NOAA that the 5-year leasing plan did not propose an action which would have reasonably foreseeable coastal effects. This is consistent with the long-standing definition of Federal agency activity that the Federal agency determines whether coastal effects are reasonably foreseeable. Regarding lease suspensions see response to Comments 25 and 26.

*Comment 28.* Without explanation, the proposed revision deletes "exclusion of uses" among listed

examples. We request that you reinstate this example to reflect the full purpose and intent of the CZMA. Conflicts between coastal uses can and do result from some Federal agency activities.

*NOAA Response to Comment 28.* If a Federal agency activity proposed an action that would exclude uses of the coastal zone, then that activity would have coastal effects and the Federal agency would be required to provide the affected State with a consistency determination. NOAA did not delete this example, but more broadly captured the concept (exclusion of uses) and other aspects of coastal uses in the revised example that says "a proposed rulemaking that alters uses of the coastal zone."

*Comment 29.* The 5-Year Leasing Program is a poor example and its use in this context unreasonably prejudices California's right to seek a determination of consistency. Five-Year Leasing Programs culminate in a formal decision pursuant to the OCSLA, as to the location, concentration and timing of OCS leasing nationwide that is believed necessary to meet the nation's energy needs. By law, this decision is based upon several factors, explicitly including a determination of coastal effects. Each 5-Year Leasing Program is accompanied by an Environmental Impact Statement, which assesses impacts of different leasing alternatives that affect the distribution and concentration of proposed lease sales around the nation. Additionally, each program is subject to a formal public review and comment process that does not meet the narrow exceptions of "agency deliberations or internal tasks." Subsequent lease sales provide an opportunity to address the effects on coastal resources from developing only those leases involved in the lease sale. However, the lease sale is not the earliest time where consultation should commence and it occurs too late to consider alternative distributions and concentrations of leasing to best balance the nation's energy needs with protection of coastal resources. Those alternatives were finalized in the 5-Year Leasing Program. Accordingly, Santa Barbara County believes much earlier consultation on issues, which the federal consistency review process is intended to address and resolve through better alternatives, can and should occur during the 5-Year Leasing Program. The 5-Year Leasing Program does initiate a series of actions with reasonably foreseeable coastal effects. If it did not, it would not comply with the requirements of the OCSLA.

*NOAA Response to Comment 29.* NOAA agrees that an important

objective of federal consistency is to facilitate early State-Federal coordination. Many of the modifications in this final rule are, however, made to clarify when consistency must attach. As pointed out in the comment, MMS' 5-year planning process is mandated by statute and is an initial exploration into whether and where OCS leasing might occur. As such, the 5-year plan looks at numerous issues, but, according to MMS, does not determine which leases may actually be offered for bid. MMS is the agency conducting the activity and NOAA must continue to rely on MMS's determination that the 5-year program does not propose an action with coastal effects. This is consistent with NOAA's statements regarding the 5-year planning process in the preamble to NOAA's 2000 rule.

*Section 930.31(d)—Federal Agency Activity*

*Comment 30.* The primary change proposed in this section is to eliminate the Federal option to treat a proposed general permit as a federal license or permit, rather than as a Federal agency activity. It is not clear whether a Federal agency has ever availed itself of this option or what advantages it might have. The final rule should further explain the significance of this change. In addition, the final rule should clearly affirm that when a State issues a consistency objection to the general permits, or other conditions are imposed on general permits that require case-by-case review, then the applicant must obtain the State's concurrence before relying on the general permit.

*NOAA Response to Comment 30.* NOAA's explanation of this change is provided in its explanation for rule change 5. Summarizing that explanation, NOAA removed the option to allow Federal agencies to treat their general permits as a federal license or permit activity for purposes of complying with CZMA § 307 and 15 CFR part 930. A State objection to a consistency determination for the issuance of a general permit alters the form of CZMA compliance required, transforming the general permit into a series of case-by-case CZMA decisions and requiring an individual who wants to use the general permit to submit an individual consistency certification as an "applicant" in compliance with 15 CFR part 930, subpart D.

*Comment 31.* We suggest that the phrase "[i]f the State's conditions are not incorporated into the general permit" should be clarified. If the language used by the Federal agency to incorporate the State-proposed condition varies in any way from the

State-proposed condition or if other conditions of the federal permit conflict with or override the State-proposed condition, this should cause the general federal permit to be a federal licensing or permitting action and not a Federal agency activity. With such clarification, we do not oppose the proposal.

*NOAA Response to Comment 31.* Section 930.4 is clear that State conditions of concurrence for a general permit must be based on enforceable policies and if the conditions are not, to the maximum extent practicable, included in the general permit, then the State has objected and the general permit will not be available to an individual who wants to use the general permit until the individual user has satisfied the requirements of subpart D.

*Comment 32.* We have concerns about NOAA's proposed amendments to section 930.31(d) to clarify that if a State objects to a Federal agency's consistency determination for a general permit, all potential users of that general permit would thereafter have to furnish individual consistency certifications for State review. This procedure counters the fundamental purpose of the general permit process. Indeed, NOAA's position conflicts with its own recognition of the nature of the federal approval involved in an MMS lease sale, whereby MMS can with justification proceed to conduct the lease sale even in the face of State consistency objections. NOAA has consistently recognized that individual lessees, in taking their leases from the MMS after such a sale is conducted, would not have to furnish individual consistency certifications.

*Comment 33.* A general permit may have adverse impacts on the coastal zone that are only revealed on a case-by-case review. Therefore, while a State may not find a basis to object to a general permit, such as an NPDES permit, the actual application to a particular situation involving sensitive coastal resources may make a consistency review appropriate and necessary. The rule amendments should reflect this possibility.

*Comment 34.* Some general permit conditions necessitate case-by-case reviews to verify that the project meets the requirements for coverage.

*NOAA Response to Comments 32, 33 and 34.* The purpose of a general permit is to develop conditions of use so as to eliminate individual case-by-case reviews. Thus, if a State concurs with the general permit (including those conditions of use), then the State is not allowed to review case-by-case uses of the general permit. As noted in the explanation to rule change 5, the general

permits are a hybrid between a Federal agency activity and a federal license or permit activity. Thus, NOAA added this section in the 2000 rule requiring that when a State objects to a general permit, even though the general permit is still issued, it is not available for use in that State until an individual who wants to use the general permit provides the State with a consistency certification pursuant to subpart D, and the State concurs or the Secretary overrides a State's objection to the individual consistency certification. There is no conflict with NOAA's regulations. A Federal agency could, pursuant to the consistent to the maximum extent practicable standard, still proceed with issuing a general permit, but individual users could not avail themselves of the general permit if the State objected, until after the requirements of 15 CFR part 930, subpart D are met.

NOAA has modified the proposed language to clarify that it is an individual intending to conduct an activity pursuant to a general permit who would become an "applicant" pursuant to subpart D and must provide the consistency certification to the objecting State.

#### *Section 930.32—Consistent to the Maximum Extent Practicable*

*Comment 35.* The proposed rule does not address use of the terms "consistent to the maximum extent practicable" and "fully" consistent. We interpret the latter term to be absolute. The plain definition of "fully" means "completely." We have not found anywhere in the CZMA or subsequent amendments of 1990 and 1996 where the Congress explicitly mandates that Federal agencies comply with every State coastal zone requirement regardless of cost or national implication. We ask that the OCRM revise the proposed rule to clarify that budget authority may limit a Federal agency's ability to be fully consistent.

*NOAA Response to Comment 35.* The definition of "consistent to the maximum extent practicable" clearly reflects the language and intent of the CZMA and was not changed in 2000 from its 1979 definition. NOAA's language was specifically endorsed by Congress in the conference report to the 1990 CZMA reauthorization and has been upheld by Courts since then. In addition, NOAA discussed the relationship between statutory requirements regarding the consistent to the maximum extent practicable standard and appropriations law at length in the preamble to the 2000 rule. See 65 FR 77133-77135 (December 8, 2000). The suggested changes would

provide Federal agencies with complete discretion as to whether their activities would be consistent with a State's enforceable policies. Such a change would violate the statute and cause ambiguity in the application of the section.

A recent Federal court decision has addressed NOAA's definition of "consistent to the maximum extent practicable." In *California Coastal Commission v. Dept. of the Navy*, 5 F. Supp. 2d 1106 (S.D. Cal. 1998), the Navy argued that it complied to the "maximum extent practicable" with California's dredging and disposal policies because it was obligated to follow a modified § 404 permit issued by the Corps. The court noted that the federal permit was "not existing Federal law" that would excuse compliance with the State policies and consistency requirements of the CZMA. *Id.* at 1111. Congress partially waived the Federal Government's supremacy over State law when it created the CZMA. As such, the only *objective* means to determine "consistent to the maximum extent practicable" is based on the legal requirements of Federal agencies and their administrative records. The 2000 rule, in response to requests by Federal agencies, provided clear guidance as to when a Federal agency can proceed over a State's objection: Due to an unforeseen circumstance or emergency, or when a Federal agency asserts, based on its own administrative decision record, it is fully consistent, or because of the requirements of other Federal law. NOAA has provided, and will continue to provide, advice to Federal agencies on how to effectively use the consistent to the maximum extent practicable standard in connection with their statutes and individual case-by-case decision records.

#### *Section 930.35(d)—General Negative Determination*

*Comment 36.* NOAA should consider written notification response requirements for States under Section 930.35(c) similar to that under § 930.41(a), thereby requiring States to provide written notification to a Federal agency if a State objects to a negative determination. Any such State response should also be required to provide supporting information regarding the State's assertion that coastal effects are reasonably foreseeable.

*NOAA Response to Comment 36.* The 14-day response in § 930.41(a) is merely a completeness notification to the Federal agency. It is not a substantive response. The substantive response for a consistency determination is the 60-day period in § 930.41(a). This same 60-day

period is already included in § 930.35(c).

*Comment 37.* This provision would shift the emphasis away from a case-by-case consideration of consistency and reasonably foreseeable coastal effects to deciding what are "repetitive activities." The proposed change effectively creates a consistency exemption for an undefined category of "repetitive activities." The proposed rule does not provide adequate parameters to determine what are "repetitive activities," and how similar in nature the activity must be for agencies to avail themselves of this option. There is a concern that issuing a general negative determination may have the practical effect of minimizing full consideration of "cumulative impacts" that may be increasingly significant for ongoing activities. Several States also raised a concern that a general negative determination would effectively limit public notice and review of these repetitive activities. There is strong opposition to the lack of adequate procedural safeguards in this proposed change. Any final rule providing for a general negative determination must be amended to provide: (1) A clear definition of what constitutes "repetitive activities" and a requirement that Federal agencies closely monitor activities to assure that there are no cumulative or unforeseen impacts; (2) In describing in detail the activity it is not adequate to set out "expected number of occurrences over a specified period of time." Additional safeguards must be added to the final rule requiring agencies to provide sufficient details about when and where the activity would occur, and requiring that the States and public should be advised in advance of the actual occurrence and location of such activity to assure that it is being carried out as originally represented; and (3) Agencies should not have the option ("may") of periodically reviewing the general negative determination. The final rule must provide that Federal agencies are required ("shall") to reassess at least every three years or sooner if deemed necessary by the State or Federal agency.

*Comment 38.* New Jersey's Coastal Management Program does not object to the concept, provided that the Federal agency be required to reassess whether the general negative determination remains applicable every five years.

*Comment 39.* We do not oppose the concept of a general negative determination, and we generally support the proposed rule text. We do, however, support the concept of a mandatory periodic review of the

general negative determination, but suggest that prior to undertaking each review the Federal agency should be permitted to request an affirmative waiver of the review from each affected State. This should relieve the Federal agency from unnecessary paperwork where there is no disagreement regarding the effects of the activity.

*Comment 40.* We recommend that this paragraph include consideration of situations in which an activity conducted under a general negative determination actually does have or may have coastal impacts. Specifically, we suggest that the Federal agency should be required to immediately discontinue the use of the general negative determination and conduct a new review of the activities to see whether a general negative determination or an individual consistency determination is more appropriate.

*NOAA Response to Comments 37, 38, 39, 40.* The general negative determination category does not create an exemption. It can only be used when a series of Federal agency activities do not have coastal effects, either direct, indirect or cumulative. The general negative determination is consistent with the case-by-case analysis embodied in federal consistency reviews because the general negative determination covers a single activity which occurs frequently or repetitive activities related to a single action or project. Likewise, a definition of "repetitive" is not needed; this can be determined on a case-by-case basis. The new section, along with the rest of the negative determination section, provides sufficient guidance to Federal agencies for adequately describing the activity at issue.

Federal agencies should not be required to reassess their negative determinations within a specific time frame. Currently, Federal agencies are not required to reassess their consistency determinations, general consistency determinations or negative determinations. Therefore, a reassessment every few years should not be required for general negative determinations. The CZMA does require, of course, that Federal agencies provide States with a consistency determination if its activity, subject to a previous negative determination or general negative determination, later has coastal effects. Such matters would be covered by the pre-existing sections for previously reviewed Federal agency activities under §§ 930.45 and 930.46. If a Federal agency finds that activities covered under a general negative determination are having coastal effects,

the Federal agency would be obligated to provide the affected State(s) with a consistency determination under § 930.34(a)(1). A State could also notify the Federal agency if the State later maintains that an activity subject to a previous negative determination is having coastal effects. If the Federal agency agreed, the Federal agency would have to conduct the activity consistent to the maximum extent practicable with the State's enforceable policies.

*Comment 41.* We endorse and appreciate NOAA's proposed rulemaking establishing a general negative determination option for Federal agencies.

*NOAA Response to Comment 41.* NOAA notes this comment.

#### *Section 930.41(a)—State Agency Response*

*Comment 42.* We support the requirement for States to provide a written response within 14 days if more information is required pursuant to 930.39(a). Written responses will alleviate the scheduling ambiguity that can occur based on informal discussions.

*NOAA Response to Comment 42.* NOAA agrees that the 14-day notification will alleviate discrepancies in determining when the 90-day review period has begun.

*Comment 43.* We understand the intent of OCRM, but this subsection, as written, is likely to cause more confusion than clarity. We recommend that the last full sentence be broken into two separate but modifying sentences to read as follows: "Thus, if a Federal agency has submitted a consistency determination and information required by 930.39(a), then the State agency shall not assert that the 60-day review period has not begun because the information contained in the items required by 930.39(a) is substantively deficient. Additionally, the failure to submit information that is in addition to that required by 930.39(a) shall not be a basis for asserting that the 60-day review period has not begun."

*NOAA Response to Comment 43.* NOAA agrees that breaking the sentence into these two sentences is clearer and has done so in the final rule.

*Comment 44.* Replacing the word "immediately" with a 14-day period is a positive change. This time period is more realistic considering the workloads of State consistency review staff.

*NOAA Response to Comment 44.* NOAA notes this comment.

*Comment 45.* The proposed modifications to the regulation purport

to clarify the provision in the existing regulations that provides that the time period for a State to review a consistency submittal does not start until the State receives the necessary data and information. However, the proposed change eliminates any meaning of this provision and will allow the time period to begin upon receipt of the submittal in almost all situations, effectively eliminating the States' ability to evaluate the content of a consistency submittal before acting on it. The purpose of this "clarification" appears to be removing discretion from States to seek the information requirements they need to analyze Federal agency activities. This clarification would render the information requirements virtually meaningless and contravene their intent. For example, in many cases, a consistency submittal will include an analysis of some of the relevant policies, but fail to consider other relevant provisions of the State's coastal program. The changes will require the State to initiate the time period for consistency review despite the fact that the submittal is missing analysis of important coastal program policies. To date, we have never received any objections or concerns raised by Federal agencies when we have asked for additional information necessary to support the agency's conclusion. Like many of the proposed changes, this change is a solution in search of a problem. The proposal is unnecessary, erodes the State authorities, and renders the information requirements meaningless.

*Comment 46.* The 14-day period should be 21 or 30 days to assure that States have adequate time to review more complex proposals. It is in both the agency and the State's interest that the consistency determination and supporting information be as complete as possible to assure expeditious and qualitative review. The final rule should also clarify that failure of a State to notify the agency of missing information within 21 or 30 days shall not bar the State from subsequently seeking necessary information and/or objecting to a consistency determination for lack of adequate information.

*Comment 47.* It is anticipated that, with minor clarification, the proposed 14-day notification to the Federal agency that the 60-day review has not begun due to insufficient information will not impede Texas' review process. It is in both the agency and the State's interest that the consistency determination and supporting information be as complete as possible to assure expeditious and qualitative



review. However, the final rule should clarify that failure of a State to notify the agency of missing information within 14 days shall not prevent the State from subsequently seeking necessary information and/or objecting to a consistency determination for lack of adequate information.

*NOAA Response to Comments 45, 46, and 47.* The State has 60 days (plus applicable extensions) to issue its consistency concurrence or objection. The State would not have to issue its concurrence or objection during the 14-day "completeness/checklist" review. The completeness/checklist review is not the State's substantive review of the activity, and does not preclude the State from requesting additional information during the 60-day review period or objecting for lack of information. Requesting additional information and objecting based on lack of information are covered by § 930.43(b), which is not being changed. The completeness/checklist review is merely to clarify when the 60-day review period begins by determining if the information required by § 930.39(a) is submitted to the State. This would not always result in the time period starting on receipt of whatever the Federal agency provides to the State. Using the commenter's example, if the Federal agency failed to address applicable enforceable policies in the State's federally approved CMP in its consistency determination, then the Federal agency's submission would not be complete. The State could so notify the Federal agency within the 14-day completeness/checklist notification period, and the 60-day review period would not begin until the Federal agency addressed the enforceable policy. If, on the other hand, the Federal agency submitted all information required by § 930.39, including an evaluation of all applicable enforceable policies, then the 60-day review period began when the State received that information, even if the State believed that the Federal agency's analysis was not an adequate evaluation of the policies. Otherwise, a State could delay the start of the consistency review period indefinitely by claiming the Federal agency's information was not good enough. Such a result would directly conflict with Congressional intent to balance State needs with federal interests in efficient and timely decision-making. In addition, to further clarify, while the State may request additional information during its 60-day review and may object for lack of information, States have never had the ability to describe information for Federal agency activities needed to start

the 60-day review period. For Federal agency activities under CZMA section 307(c)(1), the Federal agency has always made the initial determination of coastal effects and it is the Federal agency's decision that it has sufficient information to provide the State with a consistency determination. See 15 CFR 930.36 and 930.39.

*Comment 48.* NOAA should ensure that the requirements of § 930.39(a) are clear enough to provide a complete project description adequate for State review purposes, as well as the information requirements of the applicants, agencies, and States. NOAA should clarify the relationship between this section and other sections of the regulations that provide information requirements (i.e., § 930.58—necessary data and information, and § 930.60—commencement of State agency review).

*NOAA Response to Comment 48.* Section 930.39(a) contains a clear statement to Federal agencies of the information they must submit with a consistency determination. There is no relationship between subpart C and subpart D regarding information needs. Subpart C is for Federal agency activities and subpart D for federal license or permit activities. The requirements are distinct because of the different standards in the statute for determining consistency, i.e., consistent to the maximum extent practicable for Federal agency activities and fully consistent for federal license or permit activities. This distinction allows States flexibility to describe "necessary data and information" for subpart D and E, whereas it does not for subpart C.

*Section 930.51(a)—Federal License or Permit*

*Comment 49.* The revisions do not appear to significantly alter the original intent of the rule. The State does not object to the proposed rule changes.

*Comment 50.* We support this change because it will ensure that the definition of the term "federal license or permit" is clearly and narrowly defined, and will not include activities that have no coastal effects.

*NOAA Response to Comments 49 and 50.* NOAA notes these comments. NOAA also notes, however, that the change in definition did not "narrow" the definition, but clarified NOAA's long-standing interpretation. See also response to comment 51.

*Comment 51.* We do not understand the decision to delete "certification, approval, lease, or other form of permission" and the definition of "lease" from the existing definition of Federal License or Permit. The proposed deletions do not clarify the definition;

therefore, existing language should be retained. Alternatively, the definition of "lease" could be transferred to 930.11.

*NOAA Response to Comment 51.* As described in the explanation for this revision, the change to the rule ensures that the definition of "federal license or permit" is not overly-inclusive or beyond the commonly understood meaning of license or permit, while at the same time retaining the phrase "any required authorization" to capture any form of federal license or permit that is: (1) Required by Federal law, (2) authorizes an activity, (3) the activity authorized has reasonably foreseeable coastal effects, and (4) the authorization is not incidental to a federal license or permit previously reviewed by the State. Thus, the removal of the forms of approvals listed in the current language does not exclude a category of federal authorizations from federal consistency, but emphasizes that any form of federal authorization must have the required elements to be considered a "federal license or permit" for CZMA purposes. Thus, "leases" are also removed from the rule, but are still a federal authorization if the four-part test is met.

*Section 930.51(e)—Substantially Different Coastal Effects*

*Comment 52.* The proposed change would limit the State's review of federally licensed or permitted activities where substantially different effects than those contemplated during consistency review occur and a new or amended submittal is warranted. Where an activity was previously approved, the Federal agency (not the State) would determine whether the effects are substantially different and warrant State review. Although the State's opinion would be given considerable weight, it would not be given any deference. NOAA proposes this change because it considers the Federal agency, rather than the State, to be the expert on whether a permitted activity is having effects different than those effects anticipated during review. However, this change substantially erodes the State's authority and its ability to review federal license or permit or permit activities which are not proceeding as originally represented or which are having unexpected effects. It will likely encourage disagreement and lead to litigation. It is also contrary to Congress's expressed intent that the federal consistency process be a joint and equal partnership between the State and Federal agencies. NOAA states in the preamble that the "expert permitting Federal agency" will make the determination about whether the effects are substantially different on the State's



coastal zone. The State, rather than the Federal agency, should be considered the expert on the effects on the State's coastal zone and whether the effects are substantially different than previously reviewed.

*NOAA Response to Comment 52.* The change to this section does not limit a State's ability to review federal license or permit activities. This change provides a more clear process. This section, added in the 2000 rule, was designed to provide some guidance in determining when a "renewal" or "major amendment" of a previously reviewed federal authorization would have substantially different coastal effects, and thus the renewal or major amendment would be subject to consistency review. The 2000 language did not establish a decision maker, but encouraged a joint consultation process to make this determination. NOAA, as stated in the proposed rule, meant for the State's view to be accorded considerable weight in making this decision. However, NOAA now believes that there needs to be finality to this determination, requiring a decision-maker, and believes that the authorizing Federal agency is in the best position to make this determination. As provided for in the new section, the Federal agency must consult with the State agency and the applicant, give considerable weight to the State agency's view, and shall broadly construe the effects test to ensure that States have the opportunity to review activities with coastal effects not previously reviewed under the CZMA.

*Comment 53.* Under the proposed regulations, the Minerals Management Service (MMS) would determine whether a change is significant and would submit the amended plan to the State. The proposed revisions confuse the determination that the MMS makes under section 25(i) of the OCSLA (43 U.S.C. 1351(i)) as to whether or not a proposed modification of a DPP or other OCS plan is or is not "significant" for purposes of the OCSLA (see 30 CFR 250.204(q)(2)) with the entirely different standard under sections 930.51(b)(3) and (c) of the CZMA regulations of whether or not a proposed OCS plan modification will have effects "substantially different than those originally reviewed by the State agency." Thus, whether or not a proposed modification of a DPP is or is not "significant" for purposes of the OCSLA has little or nothing to do with the completely separate and distinct determination of whether or not the modification satisfies the standard of 15 CFR 930.51(b)(3) and (c).

*NOAA Response to Comment 53.* This comment raises a connection between determining substantially different coastal effects under § 930.51(e) and amended OCS plans. These sections are not "entirely different standards," but are complementary. The change to § 930.51(e) creates a more consistent standard with changes to OCS plans since, pursuant to the OCSLA, MMS determines whether an amended OCS plan rises to the level where another consistency review is warranted.

*Comment 54.* We support this improvement because it leaves the decision making relative to a federally issued license or permit with the expert Federal agency that initially issued such permit or license.

*NOAA Response to Comment 54.* NOAA notes this comment.

#### *Section 930.58—Necessary Data and Information*

*Comment 55.* It is important that the current language in subsection (a)(1)(iii) requiring the applicant to submit information "sufficient to support the applicant's consistency certification" be retained. It is not necessarily sufficient, as provided in the proposed revisions, that the applicant "relied on the information" or that it was included in permit application material prepared to determine compliance with Federal permit requirements. What if the applicant "relied on" information that is unrelated to the applicable enforceable policies or is provided in error to support its consistency determination? It is important to retain the link between information provided by the applicant and the standard that it support an applicant's consistency determination. This reflects an important objective of the CZMA, which is to assure that agency and applicants substantively incorporate applicable State policies into their planning process.

*NOAA Response to Comment 55.* The necessary data and information described in the revised rule contains specific and clear requirements for information needed to start the six-month review process. These requirements are sufficient to provide for a thorough State review. Applicants must submit any information relied on in making their consistency certification to the State. This requirement is intended to capture all information relevant to the certification, but exclude information an applicant is not able to obtain or is not relevant to the applicant's certification for consistency. The requirement for applicants to consider the State's enforceable policies is not changed by this rulemaking and can be found at § 930.58(a)(3). Likewise,

the effects analysis that an applicant must submit is still included. If the State needs information that is in addition to the necessary data and information required by § 930.58(a) prior to the start of consistency reviews, then the State must amend its management program pursuant to § 930.58(a)(2). Once the State's six-month review begins, the State may make a written request for additional information pursuant to § 930.63(c), if the State needs the information to determine consistency with its enforceable policies.

*Comment 56.* We support the proposed revisions to § 930.58 as adding specificity to what an applicant is required to provide to obtain a State's consistency decision in a timely, responsible fashion. However, we urge NOAA to further amend § 930.58 to clarify that a Federal agency's NEPA process is separate and distinct from the State's CZMA process unless the Federal agency, State, and applicant agree to address consistency requirements in NEPA documentation, and that a State may not delay processing an applicant's consistency certification pending completion of the Federal agency's NEPA or other environmental processes. This change is needed because applicants for FERC certificates have recently experienced problems and delay in trying to obtain consistency decisions for proposed projects. In one particular case, prior to beginning its consistency review, the State required the applicant to submit: (1) A federal consistency Assessment Form; (2) a copy of the application(s) along with any supporting documentation filed with FERC; and (3) a copy of FERC's Draft Environmental Impact Statement (DEIS). Subsequently, the State informed the applicant that FERC's DEIS should include a narrative assessment of the effects of the entire project on, and its consistency with, all of the applicable State Coastal Policies related to land and water uses, natural resources, energy development and cultural resources. The State further stated that its review of the consistency certification would not begin until after this information was received and it determined whether it and all other necessary data and information were adequate to address the effects of the proposal on the coastal zone. At a later date, the State informed the applicant and FERC that it would not begin its consistency review of the project until the FEIS had been issued. In fact, the State did not commence its consistency review until after FERC issued its FEIS.

Tying a State's commencement of its consistency review to a Federal agency's

completion of its NEPA review subverts the six-month time frame provided in the CZMA and harms applicants and Federal agencies in their efforts to review and approve proposed projects in a timely fashion.

*Comment 57.* API supports NOAA's general recognition that it would be impractical to require any NEPA documents in draft or final form to be included as information necessary to start the six month review period with regard to OCS plans, considering the OCSLA's explicit requirements for MMS to make decisions regarding an EP, as well as a DPP, within shortened time periods. However, the proposal appears inconsistent to then indicate that a State could nevertheless seek to amend its CZM program to require its receipt of any draft EIS prepared in connection with a DPP, in order for its consistency review period to begin.

*NOAA Response to Comments 56 and 57.* NOAA agrees that the CZMA and NEPA processes are separate and that the effects analyses for CZMA and NEPA are different. NOAA also agrees that, while addressing the requirements of other Federal statutes in NEPA documents is usually administratively efficient and encouraged by NEPA, the CZMA does not authorize States to require that CZMA-related information be included in the NEPA document. However, while States cannot describe necessary data and information for Federal agency activities under CZMA section 307(c)(1), States may do so for federal license or permit activities under CZMA section 307(c)(3). The ability of States to include DEIS's or FEIS's that are required for a federal license or permit activity as necessary data and information under § 930.58(a)(2), does not subvert the two statutes or confuse the separate CZMA and NEPA processes. The NEPA documents are only being included since they contain environmental information that the State believes is important to make its consistency decision. Since the Federal agency cannot make its decision until the NEPA process is complete, there is little or no time lost to the applicant.

However, NOAA added language to clarify that when a Federal statute requires a Federal agency to initiate the CZMA review prior to its completion of NEPA compliance, NEPA documents will not be considered necessary data and information pursuant to § 930.58(a)(2). For example, when the operation of a Federal statute precludes a Federal agency from delaying the start of the CZMA process because the NEPA document is not complete, NEPA documents listed in a State's management program cannot be

considered necessary data and information. This issue has come to light in the case of the Outer Continental Shelf Lands Act (OCSLA). See explanation of rule change 15: § 930.76(a) and (b) Submission of an OCS plan, necessary data and information and consistency certification. In addition, neither the CZMA nor NEPA require the Federal agency to include CZMA consistency determination information in NEPA documents. Therefore, States cannot delay the start of the CZMA review period because CZMA consistency information is not included in a NEPA document. See also explanation to rule change 12.

*Comment 58.* A State delay in commencing, or completing, consistency review of a project pending an applicant obtaining permits from a county or other local government agency has the potential to unduly delay the approval of projects involving coastal issues.

*NOAA Response to Comment 58.* NOAA's change to § 930.58(a)(2) removing State permits from necessary data and information addresses this concern.

*Comment 59.* It is the States' understanding that the elimination of "permits" from the list of necessary data and information will not limit the State's right subsequently to object to the consistency determination if an applicant fails to secure necessary permits. The final rule should expressly affirm this understanding.

*Comment 60.* We disagree with the proposed deletion of the words "permit or" in § 930.58(a)(2). As one of many existing networked CZM programs, we base our consistency decisions in part, on the receipt of local or State permits. If a local or State permit exists we need to know. Asking for this information in a subsequent letter will cause time delays. Therefore, providing proof of issued local and State permits is necessary data and information needed to make a timely consistency decision.

*Comment 61.* Concurrent submissions with no change in the time frames of the respective administrative processes will lead to a State making a decision on the federal consistency application prior to making a decision on the related State permit, and will result in the perception, if not the reality, that the State permit has been pre-judged. This is not likely to be acceptable to the regulated community. Accordingly, we have identified three alternatives, any of which would resolve this issue: 1. Federal consistency review should commence only after the State permit process is complete; 2. Concurrent

submissions would only be acceptable if the timeline for federal consistency review is significantly extended to be consistent with the time it actually takes to process State and local permits (anything less than 12-18 months would be unreasonable.); or 3. The rules could be changed to provide States the ability to issue phased federal consistency concurrences with the preliminary or conceptual concurrence.

*NOAA Response to Comments 59, 60 and 61.* As described in the explanation for rule change 12, elimination of State permits from necessary data and information is needed to address an untenable situation where the six-month review process could only begin at the same time the State determines the activity is consistent by issuing a State permit. Such a procedure has the potential to defeat the statutory six-month review requirement. It would also prejudice both the applicant and the public since it would preclude public comment during the six-month review if the State has already issued a permit representing the State process for determining consistency.

Removing State permits from necessary data and information only affects starting the six-month review period. This change does not affect the States' ability to require that a State permit (which contains State enforceable policies) be issued in order to find a project consistent or object to an activity because the applicant did not obtain the State permit within the six-month period. This does not result in "pre-judging" the State permit if the permit is not acted upon within the six-month CZMA review. States may object to the consistency certification while providing that the objection will become a concurrence if the State permit is issued.

NOAA cannot extend the federal consistency review period beyond the statutorily mandated six-month period to accommodate State permit processes. As suggested by the comment, a State could issue a "preliminary" decision within the six-month time frame so long as its final decision is issued within the same six-month period. A State and applicant could also agree to stay the six-month period to a date certain, to allow the State's permit process to be completed. See discussion of rule change 13, § 930.60, for staying the six-month review period.

*Comment 62.* If a proposed federal activity has already received State or local government permits, applicants should be required to provide the State with those permits along with the data and information developed during the review and approval of the State or local

government permit. Therefore, additional language is required to clarify that the States can request permitting information for projects that may already be permitted.

*NOAA Response to Comment 62.* If an applicant received a State permit prior to the six-month consistency review and the State has described "permit applications" in its program as necessary data and information pursuant to § 930.58(a)(2), then the applicant would merely have to provide the State with the previously issued permit to show it met the information requirement. No change to the rule is necessary.

*Comment 63.* API endorses NOAA's attempted clarification of the definition of a "federal license or permit" requiring consistency review, as well as the deletion of the confusing phrase "comprehensive data and information sufficient to support the applicant's consistency certification" presently appearing in 15 CFR 930.58(a)(1). API requests clarification that the protections now afforded in § 930.58(c) to an applicant's confidential and proprietary information still remain in place if this substituted language is adopted. API would also suggest that NOAA consider restating the protection found in subpart (c) of § 930.58 by rephrasing the substituted language in subpart (a) to read "any other non-confidential and non-proprietary language relied upon."

*NOAA Response to Comment 63.* Section 930.58(c) was not proposed to be modified and the protections afforded by paragraph (c) remain in effect. No re-wording is necessary.

*Comment 64.* We support the new specific information requirements because they will make the process predictable and more transparent.

*NOAA Response to Comment 64.* NOAA notes this comment.

#### *Section 930.60—Commencement of State Agency Review*

*Comment 65.* The States reject the characterization that State review is merely a "checklist." The information should be adequate to address applicable State coastal policies, and to "support the applicant's consistency determination." The final rule should also be amended to clarify the relation between the timelines established in subsections (a)(1)(i) and (a)(2). The provisions in (a)(2) provide that the State agency's consistency review commences on the date that any missing information was received by the State agency. The language in (a)(1) should be amended to include a specific cross-reference to the timeline provided in

(a)(2). In addition, the applicant should bear the responsibility of promptly responding to a State request for missing information in order to assure that States have adequate time to review all information. It is not sufficient for the applicant to provide the information "during the review period." There is also a concern about the deletion of language requiring that missing information or other deficiencies be "corrected" or "cured" by the applicant. There is some concern that eliminating these requirements could result in turning the applicant's review from a substantive consideration of State policies into a ministerial action.

*NOAA Response to Comment 65.* The completeness/checklist review is not the State's substantive review of the activity, and does not preclude the State from requesting additional information during the six-month review period or objecting for lack of information. Requesting additional information and objecting based on lack of information are covered by § 930.63(c), which is not being changed. The checklist review serves only to clarify the date when the six-month CZMA federal consistency review period begins by determining whether the certification and necessary data and information required by § 930.58 has been submitted to the State. Further cross-references are not needed given the clarifying edits made in the final rule. See explanation of rule change 13 for a detailed description of the changes made from the proposed rule. Under (a)(1)(ii) of the proposed rule, a time period for the applicant to provide missing information is not needed for two reasons: First, such a time frame would unnecessarily restrict State flexibility and second, starting the review period before receipt of all necessary data and information is an option for the State. It would not then make sense to give the State this option and then remove that flexibility by specifying by rule a date by which the missing information must be submitted. If a State is concerned with getting missing information early in the review period, then it should only start the review period when the State receives both certification and all necessary data and information described in § 930.58. It is not clear why the applicant's review of State enforceable policies would become a "ministerial" review. The deletion of "deficiencies must be cured" in paragraph (a)(1)(ii) is replaced with the requirement that missing necessary data and information must be received in paragraphs (a)(2) and (3). This change provides direction that the missing

information must be submitted and received by the State.

*Comment 66.* Proposed paragraph (a)(2) specifies the State's responsibility of notifying the applicant of the receipt of the necessary data and information. According to the new language, the date the information previously deemed missing is received by the State is the date the State's review begins. Thus, the proposed language at (a)(2) contradicts that of (a)(1)(ii).

*Comment 67.* The term "information" in subsection (a)(1)(i) must be read as something different than "necessary information and data" in subsection (ii). After all, subsection (i) specifically says that the clock does not start if the State does not receive the "certification or information \* \* \*". However, this interpretation is incongruous with subsection (ii) which appears to use the term "information" as a short form for "necessary information and data." Further, subsection (2) specifically contemplates that the clock will not start if the State has not received the "necessary data and information." The only harmonious reading of this rule is that subsection (ii) is completely optional. That is, if the State has received the certification but not all of the necessary data and information, the State may elect to start the clock anyway and await the information. We believe that having this option removes certainty from the process and would be exercised extraordinarily infrequently if at all. The passage should be redrafted to indicate plainly that the clock does not start until the State receives all necessary data and information required pursuant to § 930.58.

*NOAA Response to Comments 66 and 67.* Paragraph (a)(2) does not contradict (a)(1)(ii) in the proposed rule. However, this has been clarified in the re-edited final rule to recognize that the State has chosen to start the six-month review period without all of the necessary data and information. See explanation for rule change 13 for a detailed description of the requirements:

*Comment 68.* It is unclear why "or extend the six-month review period" in the first line is proposed for deletion. It seems that "staying the consistency time clock" is not the same as extending the review period. The former means "stopping the time clock" which presumably re-starts at the agreed upon time or action while the latter is not keyed to the time clock and, thus, it provides additional flexibility and could be beneficial to either the Federal agency or the State agency or, in many instances, both. Provided any alteration of the time frame is agreed to in writing by State agencies and applicants, the

regulations should continue to provide for this flexibility.

**NOAA Response to Comment 68.** The statute is explicit that there is a six-month period for the State to conduct its review. The statute does not provide the flexibility to extend the six-month review period for federal license or permit activities. Rather, the statute provides that if the State has not objected prior to the expiration of the six-month review period, the State's concurrence with the consistency certification is presumed. As such, staying or "tolling" the time clock is allowable as it does not extend the six-month review period. The six-month review period is tolled until a specific date after which the remainder of the six-month review period continues.

**Comment 69.** The proposed language for this section references "documents required by section 930.58." However, that section does not specify documents that must be submitted, but rather identifies the information that must be provided. The proposed language should be corrected.

**NOAA Response to Comment 69.** NOAA agrees that the language should be consistent and has made this change.

**Comment 70.** In order for a State to require additional information for its review process, NOAA suggests a State must amend its State management program and have the amendment approved by NOAA. The County believes the proposal is far too structured and formal a requirement for the States to fulfill for the simple purpose of obtaining the information necessary to review proposed projects. In particular, the County notes that NOAA has not processed many amendments to State approved management programs, nor is NOAA committing to provide the resources necessary to process such amendments. Further, the information needs of the States to review proposed Federal licenses and permits is often driven by developing environmental studies about the character and nature of the coastal environment. Requiring the States to request and NOAA to approve formal amendments to the approved State management plan every time additional informational needs are identified will undercut the effectiveness of the review process by the States. It will actually lengthen the review process as States seek time extensions to obtain needed information to review activities for consistency with coastal management programs. Further, the requirement is unnecessary and, therefore, should not be imposed.

**Comment 71.** We support these changes because under the current

regulations, there is significant uncertainty in determining when the six-month federal consistency review process commences because the States are free to deem an application incomplete as they seek additional data after the application is filed. This delays the running of the time clock. Under the proposed rule, the States would continue to have the ability to request the information they need, so long as they specifically describe such information in their management plans, making all potential applicants aware of the requirements prior to application. Thus, the States would be precluded from delaying federal consistency review either before or after the six-month period begins simply because they want more information.

**NOAA Response to Comments 70 and 71.** This section does not require States to amend their programs when they need additional information during the six-month review. This section does refer to § 930.58(a)(2), which requires States to amend their programs if they want to require information in addition to the "necessary data and information" described in §§ 930.58(a)(1) and (3) to start the six-month review period. NOAA strongly encourages States to amend their programs to be more specific regarding information needs, and some States have done so. Once the six-month consistency review period begins, States can request additional information needed to determine consistency with their enforceable policies, but such requests cannot stay or otherwise alter the running of the six-month review period unless the applicant and the State agree in writing to a stay until a specific date, as required in § 930.60.

**Comment 72.** Current regulations require applicants to provide information deemed necessary for the review to begin, while the proposed revisions provide only that the requested information be received by the State. It is important that States have the opportunity to review and analyze the adequacy of the information provided, and assist the applicant in providing additional information for the review.

**NOAA Response to Comment 72.** This section is concerned with determining when the six-month review period begins based on when the State has received the consistency certification and necessary data and information described in § 930.58. Thirty days is sufficient time for a State to determine whether the necessary data and information has been submitted. The State has the remainder of the six-month review period to assist the applicant in

providing any additional information other than that required by § 930.58(a).

#### *Section 930.71—Federal License or Permit Activity Described in Detail*

**Comment 73.** We appreciate NOAA's general endorsement of API's suggestion that CZMA consistency review of OCS activities described in detail in OCS plans should include federal approvals for individual permits under the Clean Water Act and Clean Air Act, and therefore States should not and need not conduct a separate consistency review for those additional federal permits. While NOAA's preamble comments will provide helpful guidance to the States, API suggests that the MMS, States, and industry would be better served by NOAA building that particular requirement into its consistency regulations, and by the agency preparing special regulatory guidance to prevent any further confusion in this regard. API also points out what inadvertently could be misleading language in the preamble's discussion of the effects of a State's objection to an OCS plan certification: At one point, NOAA remarks that "[i]f the State objects to the consistency certification, then MMS is prohibited from approving the license or permits described in the EP or DPP." Of course, in the case of an expanded "single consistency certification" including individual air and water permits, the EPA, and not the MMS, could be the subject of the statute's restrictions on approval of the license or permit.

**NOAA Response to Comment 73.** NOAA continues to emphasize the administrative efficiency gained by including CWA and CAA reviews in the State's review of the OCS plan, and not conducting separate reviews. However, NOAA cannot mandate such a requirement in its regulations. Such a requirement would have to be included by Interior in OCSLA regulations in its description of what federal approvals are "described in detail" in OCS plans. As for the federal authorizations described in detail in OCS plans, a State objection to a particular federal authorization precludes the authorizing Federal agency from issuing its approval, not MMS (unless MMS is the authorizing Federal agency).

#### *Section 930.76(a) and (b)—Submission of an OCS Plan, Necessary Data and Information and Consistency Certification*

**Comment 74.** Because the proposed changes would rely on submission of necessary data and information "required pursuant to § 930.58," it is important that the changes



recommended in rule change 10 and the clarification requested in rule change 11 or comparable language be included in the final rule. Without these changes, we would object to the removal of the language in the current subsection (a) for the reasons stated above.

*Comment 75.* This Change would drop an essential requirement of § 930.76(a), which is to "identify \* \* \* activities described in detail in the [OCS] plan which require a federal license or permit and which will have reasonably foreseeable coastal effects."

*NOAA Response to Comments 74 and 75.* The required assessment of enforceable policies is contained in § 930.58(a)(3). Likewise, the effects analysis that the applicant must submit is also contained under § 930.58(a)(3). These requirements are not changed by this rulemaking.

*Comment 76.* The changes do not ultimately affect a State's ability, under current CZMA regulations, to make continuing requests for new data and information that increase the uncertainty of the consistency process. As the proposed rule states, these changes "would not affect a State's ability to specifically describe "necessary data and information" in the State's federally approved management program \* \* \* or to request additional information during the six-month review period \* \* \* or to object for lack of information." API believes that this open-ended authority in NOAA's regulations is not needed, given that MMS has promulgated extremely thorough environmental review regulations and agency guidance for OCS Plans, and information generated by this process should be honored by the States. MMS developed its requirements in consultation with the Gulf coastal States. API suggests that information now being provided to MMS should be sufficient for the State's purposes. In addition, States should be able to identify in their CZM programs the information that will be required if different from MMS requirements, so that applicants have this information at the beginning of the process. States have enough experience with implementation of their CZM programs over the last 15 years, and the types of projects they evaluate for consistency and do not need to evaluate, on a project-by-project basis, what information is needed.

*NOAA Response to Comment 76.* Information obtained for Interior's OCSLA purposes may not be sufficient for State CZMA purposes. Thus, States need flexibility to amend their programs to describe necessary data and information for OCS plans. NOAA agrees with the comment that States

should be able to describe such information needs in their programs based on years of experience and continues to encourage States to do so.

*Comment 77.* API urges NOAA to require the States to identify information needs in their CZM programs, not just encourage them to do so. NOAA should also ensure State compliance by recognizing that a failure to timely seek NOAA's ongoing approval of a specific and current list of information needs will prevent a State from requesting supplemental information beyond what is currently described in the State's approved CZM plan, or in the permitting Federal agency's regulations and guidance. Moreover, API asks NOAA to ensure that this process is open to public review. API again urges NOAA to adopt regulations to provide a mechanism for applicants to invoke NOAA's intervention and effective oversight during consistency review if a State attempts to request information beyond what is specified in NOAA and MMS requirements or State CZM plans. To further promote other federal agencies' use of information guidelines such as those now used by MMS, API also suggests that NOAA regulations should be changed to specifically recognize that in cases where the federal permitting agency has promulgated specific consistency review guidance, in consultation with the States, a State will carry the distinct burden of demonstrating a particular need for any supplemental information in conducting its review and that such State coordination with the authorizing Federal agency is not advisory but a required feature for State management programs.

*Comment 78.* API endorses NOAA's clarification of the State's completeness/checklist review. API submits that the "checklist" nature of the completeness review be confirmed in specific regulatory language, so that the States will be required to prepare such a checklist—that is, a checklist submitted to NOAA for approval with input by the appropriate Federal agencies and affected industry—for inclusion in their coastal zone management programs.

*NOAA Response to Comments 77 and 78.* NOAA does not have the authority to require States to amend their programs. *California Coastal Com'n v. Mack*, 693 F. Supp. 821 (N.D. Cal. 1988). NOAA can only require a State to submit a change that the State has made to its Federally approved program. 16 U.S.C. 1455(e). Submission of the necessary data and information, along with the consistency certification, is what triggers the start of six-month

review period. States do have to amend their CMPs pursuant to § 930.58(a)(2) if they want to describe necessary data and information in addition to that required by NOAA's regulations. States need the ability to ask for additional information during the review period to address relevant matters not covered in the necessary data and information. See also response to comment 79, regarding State requests for information beyond the three-month period when applicants make substantial modifications to projects late in the six-month review period. As for MOU's with Federal agencies or Federal agency "guidance," if States want to bind themselves with MOU's or guidance regarding consistency reviews they can do so. NOAA, of course, throughout the consistency regulations strongly encourages States and Federal agencies to closely coordinate consistency reviews and to develop agreements that will increase the efficiency of the reviews for a particular State or Federal agency. NOAA is not requiring States to submit completeness checklists for NOAA approval, because the information requirements in §§ 930.39, 930.58, and 930.76 contain sufficient guidance as to what information must be submitted to the State in order to start the consistency review periods.

*Comment 79.* We disagree with NOAA's proposal to require each State to list the NEPA EIS in their State management plan as an informational requirement in order for the State to be able to receive the EIS as part of a complete informational submittal to the State. Where possible, rulemaking should standardize the informational requirements needed for State consistency review. Any EIS prepared for the project will obviously be useful and even essential information for the State's consistency determination. Therefore, the County requests that, for a project that requires an EIS, the draft EIS be submitted as part of the information submitted to the State under this section.

*NOAA Response to Comment 79.* NOAA has only mandated CZMA-specific information as "necessary data and information." NEPA documents that may be required for a Federal permit action may or may not be included as necessary data and information and some States may want flexibility to develop their own information needs. See also explanations to rule change 12 and rule change 15 regarding limitations on listing NEPA documents as necessary data and information. Therefore, NOAA has not mandated that NEPA documents



be included as necessary data and information.

*Comment 80.* The OCSLA, CZMA and NEPA provide opportunities for a State to review proposed OCS activities. These three acts and implementing regulations contain different requirements and timelines. Before proceeding with any changes to Subpart F of the federal consistency regulations, a complete analysis of the interaction among these three acts should be undertaken. In addition, a meeting of State and federal representatives should be convened to discuss the ramifications of the proposed changes to the federal consistency regulations and how these regulations interrelate with the other two acts and implementing regulations.

*NOAA Response to Comment 80.* The CZMA regulations, including the regulations as revised by this final rule, in addition to MMS regulations, contain the coordination needed to address the interaction of the CZMA and OCSLA. The NEPA connection was thoroughly discussed in the preamble to the 2000 rule, and further discussed in this final rule. Further analysis of the CZMA-OCSLA-NEPA interactions is not needed. See explanation of rule change 15 for further details on the NEPA limitations for OCS plans and CZMA review.

*Comment 81.* This section requires the applicant to send the State a copy of the OCS Plan when the OCS Plan is submitted to Interior. Receipt of a copy of the initial plan by the State will encourage early cooperation among the State, Interior and the applicant. Early cooperation will help the State respond to concerns and ensure that the consistency review proceeds in a timely manner.

*NOAA Response to Comment 81.* NOAA cannot require the applicant to send its initial OCS plan to the State. The submission to the State is by Interior once Interior determines the submission to be complete for OCSLA purposes. As it could be changed to comply with OCSLA standards, the initial OCS plan may not be the version that the State will eventually review for consistency. NOAA does, however, encourage the applicants to consult early with the State about its proposed OCS activities.

*Section 930.77(a)—Commencement of State Agency Review and Public Notice*

*Comment 82.* For OCS activities, which by their very nature are complex and controversial, the proposed rule would limit requests for information by the State to the first three months of the six-month review period, and thus prohibit a State from asking for any

information after three months. This change implies that unless a State requests information within the first three months of the review period, it may be prohibited thereafter from objecting based on lack of information. Given the emphasis in the previous regulatory changes on maximizing public participation in the federal consistency process, this proposal represents a policy reversal and would have the effect of stifling public input into the process. It would also clearly diminish State authorities by removing the ability of the State to object based on lack of information (or at a minimum, invite litigation over the question of whether the State retains this authority). It may require states to hold an additional hearing within three months, solely for identifying information needs. Alternatively, it may simply compel a State to act within three months, just to preserve its options, thus halving the effective review period from six months to three. The idea that no new information need could or should arise after three months is not realistic, from a practical perspective gained from reviewing highly complex projects. In addition, interested members of the public may alert the State to impacts or information about which it was not initially aware. We strongly oppose this change as unworkable, impractical, and unrealistic, and one that will lead to increased litigation, rather than a streamlined process.

*NOAA Response to Comment 82.* The completeness/checklist review is not the State's substantive review of the activity, and does not preclude the State from requesting additional information during the review period or objecting for lack of information. Requesting additional information and objecting based on lack of information are covered by § 930.77(a)(3). The completeness/checklist review merely clarifies when the six-month review period begins by determining whether the information required by § 930.76 has been submitted to the State. As stated in the proposed rule and in this final rule, a primary purpose of this rulemaking is to provide greater clarity, transparency and predictability to the federal consistency process. The final rule meets those objectives by providing clear expectations regarding the start of review periods and information needs. NOAA found these changes were needed because there were increasing instances of State attempts to prolong the six-month review period by continual requests for additional information.

The CZMA is intended to provide States with an opportunity to review

federal actions with coastal effects within specific time frames. While the time frames should not limit information necessary for a State to make a reasonable decision, States should not, and by statute, cannot, have unlimited time to review a project. The issue is what is *necessary* for the State's review. NOAA's regulations, since 1979 and as amended in 2000 and now in this final rule, provide reasonable parameters for what is necessary data and information to start the consistency review periods for Federal agency activities, federal license or permit activities and OCS plans. These "necessary" information requirements are not significantly changed by this rulemaking. If the information required by NOAA in § 930.58(a)(1) and (3), and information required by the State pursuant to 15 CFR 930.58(a)(2), is not sufficient for the State to complete its review the State can request additional information during the six-month period. In most cases the information submitted pursuant to §§ 930.39, 930.58 and 930.76, should be all the information needed for a State to complete its review. To avoid situations where information requests are made late in the six-month review of OCS plans, States must determine whether additional information is needed in the first three months. However, NOAA has added a caveat to the rule allowing the State to request additional information after the three-month period if the person or Interior changes the OCS plan such that the plan addresses activities or coastal effects not previously described or for which information was not previously provided. This should address the main point of the comment and also foreclose attempts to withhold project changes until after the three-month period. NOAA's consistency regulations have always required that if a State wants to object for lack of information, it must first have provided the applicant/person with a written request for the information and describe why the information is needed to determine consistency with its enforceable policies. 15 CFR 930.63(c). However, a State concurrence is effective for the plan as reviewed by the State and not to changes in the plan not available for review by the State. Therefore, the person should ensure that the State has all information relevant to a consistency certification before the end of the three-month period.

*Comment 83.* We believe that requiring a program change to get additional information would be unduly burdensome to State agencies, especially in light of the other changes

proposed in the Notice. The proposed new sub-section (a)(3) would require the State coastal agency to provide minute detail, in writing, of the reasons why additional information is requested—shifting the burden of proof to the State agency from the applicant.

*NOAA Response to Comment 83.* The rules, since 1979, have required States to amend their programs to describe necessary data and information if the State wants information in addition to that described in § 930.58(a) required to start the six-month review period. This procedure was further emphasized in the 2000 rule and is not being changed by this final rule. It has also always been required that if the State wants additional information during the State's six-month review, the State must describe the reasons why it needs the information to determine consistency with specific enforceable policies. See 15 CFR 930.63(c).

*Comment 84.* In § 930.58(a)(2), the State "may" amend its program to include information needs. In § 930.77(a)(2), the impact of the new requirement providing that if a State needs information in addition to the information required by section 930.76, it "shall amend its management program" is not clear. Why is this new requirement added to the regulations when the States already have the option to amend their programs under section 930.58(a)(2)? While it may be a good practice and one that should be encouraged where the information needs are clearly identifiable, a State agency should not be required to amend its program to request additional information that is needed to determine consistency. A State should not be required to amend its program to anticipate potentially unknowable information needs. An effort by the California Coastal Commission, MMS and industry in the early 1990's was abandoned by mutual agreement as potentially not productive because information needs change over time due to changed circumstances. A list could be overly burdensome and wasteful for applicants, if States tried to anticipate every possible concern. A list would be out of date relatively soon after it was compiled. The more comprehensive and relatively simple requirements of the CZMA benefit applicants by enabling them to focus on the relevant issues rather than satisfy an exhaustive and inflexible list of information requirements that would need to be satisfied. Furthermore, a list that is not adequate for all States may lead to more State objections based on lack of information, which would not improve the efficiency of the consistency review

process. It is very important that, if this new requirement or some variation thereof is maintained to encourage States to amend their programs, it not be open to interpretation as a bar or limit to the applicant providing or State requesting all necessary information supporting the consistency determination, when it has not been included in an amended program.

*NOAA Response to Comment 84.* A State is not required to amend its program to describe State specific necessary data and information, thus the term "may" was used in § 930.58(a)(2). If, however, a State wants to require "necessary data and information" in addition to that described in § 930.58(a) to start the six-month review period, the State must first amend its CMP. That is why "shall" was used in § 930.77(a)(2). NOAA has changed the language in § 930.77(a)(2) to better reflect this long-standing interpretation. Obtaining information that is in addition to the necessary data and information required by § 930.76 is described in § 930.77(a)(3).

#### *Section 930.82—Amended OCS Plans*

*Comment 85.* The proposed revision does not appear to substantially change the process for review of amended OCS plans and the State does not object.

*NOAA Response to Comment 85.* NOAA notes this comment.

*Comment 86.* This section removes a requirement that the applicant send a copy of the amended OCS plan to the State. This provision should remain because it encourages early cooperation among the State, Interior and the applicant. The second change is an addition that Interior will furnish the State with a copy of an amended OCS plan when it is satisfied that OCSLA and CZMA requirements have been met. While Interior is best suited to determine if the requirements of OCSLA are met, Interior personnel may not have the expertise to decide if requirements of the CZMA regulations are met. There should be a consultation with the State built into this process.

*NOAA Response to Comment 86.* NOAA's change to this section is not a substantive change. NOAA cannot require the applicant to send its initial plan to the State. The submission to the State is by Interior after Interior determines the submission to be complete for OCSLA purposes. Because an OCS plan could be changed to comply with OCSLA standards, the initial OCS plan may not be the version the State will eventually review for consistency. NOAA does, however, encourage the applicants to consult early with the State about its proposed

OCS activities. The amended plan referred to under this section is a plan to which the State objected and the Secretary did not override the State's objection. The provision for Interior to provide the amended plan to the State is merely a determination that the amended plan has met OCSLA requirements and is then ready to be sent to the State.

#### *Section 930.85(b)—Failure To Comply Substantially With an Approved OCS Plan*

*Comment 87.* Although no changes are proposed to this section, this section could be clearer as to who should be responsible for recommended remedial action. We recommend this subsection be clarified through the addition of language at the end of the next to last sentence to read, "Such claim shall include a description of the specific activity involved and the alleged lack of compliance with the OCS plan, and request for appropriate remedial action by the licensee or permittee."

*NOAA Response to Comment 87.* NOAA has not made this change as the remedial action could be taken by either MMS or the person.

#### *Section 930.85(c)—Failure To Comply Substantially With an Approved OCS Plan*

*Comment 88.* The proposed change would shift the authority from the Director of OCRM to MMS to determine whether an OCS plan has not been substantially complied with and whether an amended plan must be reviewed by the State for consistency. NOAA states in the preamble that this is needed to clarify that MMS must make the determination whether a plan has been substantially complied with or not. In the 2000 rule changes to these regulations, NOAA stated in the preamble that one "federal agency had commented that the CZMA does not authorize NOAA to require OCS plan amendments. NOAA disagrees. This is an existing regulatory requirement and is mandated by the CZMA, CZMA § 307(c)(3)(B)." Also in the 2000 rule changes, NOAA added § 930.65 which authorizes the State to monitor federally licensed and permitted activities to determine whether they are not being conducted as originally proposed and will cause substantially different effects. NOAA's rationale for adding the remedial § 930.65 now supports retaining § 930.85, the remedial section upon which § 930.65 was modeled. Changing this remedial provision is a huge step backward; it would greatly reduce the State's ability to insure that OCS plans are carried out as proposed

and approved. NOAA should retain the provisions of § 930.86 which provide the State "with a more meaningful opportunity" to address instances where the State claims an OCS plan is not being substantially complied with and additional consistency review is mandated. Again, this change is inconsistent with both the letter and the spirit of the CZMA. Rather than fostering cooperation and giving the State a truly meaningful way to insure OCS plans continued compliance with the State's management program, this change would reduce the State's role and abdicate the Director's responsibility in favor of MMS.

*Comment 89.* The proposed revision to this paragraph eliminates all recourse by the State or by NOAA to seek compliance with the CZMA, in cases where an OCS operator may be acting in a manner that is not in accord with an approved operating plan. MMS certainly should have primary responsibility for ensuring that OCS Plans are followed, however, compliance with the approved State program and the CZMA is also in question should an operator deviate from the approved plan. We recommend that the regulations give MMS a reasonable opportunity to review and act on a report that a person is failing to comply substantially with their OCS plan, but the regulations should retain some mechanism by which the State can seek review and intercession via NOAA authorities.

*NOAA Response to Comments 88 and 89.* As stated in the proposed rule and this final rule, unlike other Federal statutes, the CZMA specifically addresses the OCSLA oil and gas program and this establishes a unique coordination between the CZMA and the OCSLA. Where the CZMA mandates certain requirements for OCS plans, these are addressed in NOAA's regulations. Where the OCSLA program provides Interior with certain roles not covered by CZMA mandates, NOAA will rely on Interior to implement those roles, consistent with CZMA requirements. This statutory-specific relationship is distinct from other Federal statutes and, thus, the remedial action section, 930.65, is appropriate for other federal authorizations, but not OCS Plans. As such, and as explained in the proposed rule and the explanation in this final rule for § 930.85(c), NOAA's rationale for retaining this section in the 2000 rule did not fully account for CZMA section 307(c)(3)(B) and the CZMA-OCSLA interaction. This rule change is needed to more closely coordinate CZMA and OCSLA requirements. Thus, NOAA cannot "abdicate" an authority which

never expressly existed and the change is, in fact, consistent with both the CZMA and the CZMA-OCSLA relationship.

*Comment 90.* To clarify this section, we recommend the following modifications: (1) Insert "or to the State's request for appropriate remedial action" between "and applicable regulations" and "the person shall comply with" in the third line of subsection (c); and (2) insert "if such has been prepared" between "amended OCS plan (excluding proprietary information)" and "necessary data and information" in the last sentence.

*NOAA Response to Comment 90.*

These changes are not needed. Paragraph (c) now applies to instances where MMS determines a person has failed to substantially comply with an approved OCS plan, regardless of whether the State requested remedial action or not. Remedial action is covered in paragraph (b).

*Section 930.121(a)—Consistent With CZMA Objectives on Appeal*

*Comment 91.* FERC's issuance of a certificate of public convenience and necessity for an interstate pipeline should by definition be deemed to meet the criteria that an activity significantly and substantially furthers the national interest. A FERC certificate confers on its holder the ability to exercise a federal right of eminent domain. The fact that the Congress in the Natural Gas Act (NGA) saw fit to confer this right on a private applicant acting pursuant to a federal authorization speaks volumes about the national interest furthered by interstate pipeline projects with FERC certificates.

*NOAA Response to Comment 91.* FERC findings for an interstate pipeline will undoubtedly be an important factor considered by the Secretary to determine whether a project furthers, in a significant or substantial manner, the national interest as articulated in the CZMA. However, an order issued by FERC pursuant to the NGA to authorize the construction and operation of an interstate pipeline remains subject to other federal statutes as FERC itself has recognized. The statutory responsibility for determining whether a project is consistent with the objectives of the CZMA rests solely with the Secretary of Commerce. The question of whether a project furthers the national interest as articulated in the CZMA is one aspect of this determination. Findings by FERC under the NGA would be given appropriate consideration by the Secretary and major energy projects, such as an interstate pipeline, may likely be found to significantly or

substantially further the national interest for CZMA appeal purposes. However, this conclusion is made by the Secretary and relies on the factual record developed for an individual appeal.

*Section 930.121(c)—Alternatives on Appeal*

*Comment 92.* New Jersey's Coastal Management Program supports the proposed rule changes to this section. In particular, we strongly support the language clarifying that an alternative shall not be considered unless the State submits a statement to the Secretary that the alternative would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program.

*NOAA Response to Comment 92.* NOAA notes this comment. The section's revisions reflect the criterion relied on by the Secretary for determining whether an alternative will allow a proposed activity to be conducted in a manner consistent with a state's coastal management program—as established by numerous CZMA appeal decisions.

*Comment 93.* The second portion of this section will prohibit the Secretary from considering any alternative that the State had not determined to be consistent with the applicable enforceable policies. It is unreasonable to expect a State to conduct a comprehensive analysis of alternatives to ensure complete consistency especially in complex projects which are not within the expertise of a coastal management agency. Further, it is unfair to require the State to commit to a finding of consistency on an alternative that necessarily will not have been fully developed or analyzed. However, it is often possible to identify alternatives with fewer impacts that, upon further study, may prove to be acceptable. Additionally, the consideration of alternatives should include those identified by the Secretary or any party to the appeal and not be limited to those the State identifies. If the language is adopted as proposed, it seems entirely likely that an applicant for Federal activity could do a cursory "bare-bones" evaluation and propose an alternative that is clearly unacceptable to the State so that the alternatives analysis burden would fall to the State. The responsibility to conduct a reasonable alternatives analysis rightly belongs to the applicant, who has the original burden of proof and persuasion respecting its chosen proposal.

*NOAA Response to Comment 93.* This is an adoption of current practice, as noted in the explanation to this rule

change. Anyone can offer an alternative on appeal. However, this change clarifies that for an alternative to be considered available, the State would have to declare whether it is consistent. The point of the Secretary's decision is to determine whether to allow a Federal agency to authorize the proposed project, which has already undergone substantial State review. Thus, if an alternative meets the purpose of the project and the State finds the alternative consistent, then the applicant could adopt the alternative and proceed with that alternative without further State CZMA review. The purpose of the appeal decisions is not to begin a new round of State reviews for the same project, but to bring finality to the CZMA process for that project. If a State cannot make a finding of consistency for an alternative on appeal, then the State would not prevail on that element of ground I.

*Section 930.127—Briefs and Supporting Materials*

*Comment 94.* Thirty days is not an adequate time period for the State to respond to the new issues raised at the appeals level. As NOAA points out, the Secretary is not imposing his or her judgment on the consistency of an activity with a State's program, but rather is reviewing new questions of balancing competing national interests and looking at national security needs. By their very nature, these issues do not involve questions of consistency with the State's coastal program. Rather, these are new issues that the State does not (nor is required to) consider in its consistency review. The consideration of these issues will require additional data gathering and, possibly, public input, and thus 30 days is insufficient time for the States to consider these issues.

*Comment 95.* As a general matter, it would be preferable for both States and the appellants to permit the Secretary to establish a briefing schedule in consultation with the parties as provided in the current regulation. This would enable a schedule to be established to meet the case-by-case needs of both parties. To the extent the final rule sets out a specific briefing schedule, it is in the best interest of both parties to have an adequate opportunity to submit information to assure a complete record. Allowing for a less rigid briefing schedule would not extend the time set for completion of the record and issuance of a final decision. CSO supports the following specific technical changes: Subsection (a)—Provide at least 45 and preferably 60 days for States to submit a reply brief;

Subsections (a), (b) & (c)—Clarify the relation between the initial brief and reply and additional procedural or other briefs required by the Secretary. For example, would separate time periods be set out for those briefs? Would the need for these additional briefs extend the briefing schedule? Subsection (c)(3)—There seems to be an error in subsection (c)(3) that refers to sections 930.127(a) and (c)(1). The significance of these cross-references is not clear. Subsection (e) provides for extensions of briefing schedules "only in the event of exigent or unforeseen circumstances." This provision is overly restrictive.

*Comment 96.* The State generally supports these changes, but we have particular concerns. First, we suggest that allowing the appellant 30 days to file the notice of appeal, and an additional 30 days to file its brief, whereas the State is permitted only 30 days in which to respond is unfair to the State. We recommend that the State be given 60 days, which equals the total time afforded the appellant. Second, we ask that subsection (b)(1) of the final rule clarify whether supporting materials must be submitted in electronic format or whether just the briefs must be so submitted. Third, we suggest that the Secretary's authority to determine the scope of the record is not unbridled and is limited by settled principles of administrative and procedural law. Subsection (c)(1) should state that, at a minimum, the record shall be comprised of all properly filed and served briefs and supporting materials and all timely submitted public and agency comments. Fourth, as the rule allows for the Secretary to order additional briefs, subsection (e) should clarify that the Secretary may establish the filing periods for such briefs beyond the limits specified in subsection (a).

*Comment 97.* It would be both practical and helpful to allow the parties to submit additional response briefs within 20 days after the filing of the State's opening brief. This would allow the parties the opportunity not only for important rebuttal arguments, but also for the parties' responses to any public, or Federal agency comments that had been received into the decision record.

*NOAA Response to Comments 94, 95, 96 and 97.* To meet the more restricted time period for closing the decision record, limitations are needed to the briefing schedules and time spent developing the decision record. These limitations to the briefing schedules are even more imperative now that the Energy Policy Act has imposed a shorter, 160-day, period to develop the decision record and a shorter period to

issue a decision, from 135 days to 75 days. The appeal decision record only needs to provide the Secretary with a reasonable basis to issue a decision. The record is "complete" when the Secretary determines there is sufficient information to make a reasonable decision. Public input is provided for in the public comment period in § 930.128. Likewise, to issue a more timely decision and as described in the description of this rule change, there will be only one reply brief by the appellant. Additional briefs will occur only as needed by the Secretary. Time periods to submit any additional briefs required by the Secretary would be established by the Secretary based on the complexity of the information requested and the amount of time left in the period to complete the decision record under § 930.130. Thus, States should ensure that (1) they fully participate in the application process during the authorizing Federal agency's proceedings and raise all State concerns and requirements, to the extent possible, to the authorizing Federal agency; and (2) the States should address issues in their objection letters to the fullest extent possible, and then, again, in their brief on appeal. The cross-references to paragraphs (a) and (e) in paragraph (e)(3) are correct, as those sections describe the briefs to be filed. In order to meet the 160-day period in § 930.130, the Secretary will need to adhere to a strict briefing schedule and, thus, extensions are only for good cause shown. All materials should be provided in electronic format, as required by the existing rule. When some materials, e.g., large maps, do not lend themselves to electronic format, NOAA does not require that these materials be provided electronically. Paragraph (e), formerly (c), already allows the Secretary to extend the time for submission of briefs.

NOAA is maintaining the deadlines described in the proposed rule for when the appellant's and State's briefs are due. These deadlines are needed to address the deadlines established by the Energy Policy Act. The appellant's brief is due 30 days after submitting the notice of appeal and the State's brief will be due 60 days after appellant submits its notice of appeal.

*Comment 98.* While API sees potential utility in the provisions in proposed section 930.127(c)(2) for the Secretary to have the option of requesting an initial round of briefs to address only procedural or jurisdictional issues, followed by briefs on the merits as appropriate, the proposed rule needs to be changed to clarify that exercise of this option by the



Secretary would constitute an exception to the otherwise uniform provision in proposed section 930.127(a) that requires the appellant's opening brief to be filed within 30 days of the appeal notice, and the State's brief to be filed 30 days thereafter.

NOAA *Response to Comment 98*. No change is needed to note the "exception" since the uniform provision in § 127(a) is not that only one brief is allowed, but that the parties' one brief is due at a certain time. The provisions in paragraph (e) provide for other briefs that may be required and paragraph (e)(4) clearly provides the "exception" language requested by the comment.

*Comment 99*. Section § 930.127(b)(2) states that "[a]t the same time that materials are submitted to the Secretary, the appellant and the State agency shall serve at least one copy of their briefs, supporting materials and all requests and communications to the Secretary and on each other." (Emphasis added.) API believes that the highlighted language could be misread as requiring an additional obligation of service on the Secretary beyond the procedures already outlined in § 930.127(a) and (b)(2). Thus, API requests that NOAA consider changing the language of proposed § 930.127(b)(2) to read as follows: "At the same time that materials are submitted to the Secretary, the appellant and State agency shall serve on each other at least one copy of their briefs, supporting materials, and all requests and communications submitted to the Secretary."

NOAA *Response to Comment 99*. NOAA agrees with this comment and has made this change.

#### *Section 930.128—Public Notice, Comment Period, and Public Hearing*

*Comment 100*. The proposed change would require the Secretary of Commerce to give greater weight to Federal agencies in administrative appeals where they provide comments within their area of expertise. NOAA's proposal ignores the expertise of the State in coastal planning and permitting issues. This change, along with the other changes noted above, reduce the deference accorded to the State under the current regulations and elevate the input of Federal agencies. Congress intended the States to play an equal role in determining the fate of their coastal zones except in the most unusual circumstance: when either, after a judicial decision finding a federal activity to be inconsistent with a State's management program, the President determines that inconsistent activity is in the paramount interests of the United States or, with regard to OCS plans, the

Secretary of Commerce determines that the plan's activity is necessary in the interest of national security. (16 U.S.C. 1456(c)(1)(B) and (c)(3)(B)(iii).) NOAA should not thwart Congress's intent by adopting narrow interpretations of laws intended to have a broad reach.

NOAA *Response to Comment 100*. This section deals only with Federal agency comments on appeals to the Secretary in 15 CFR part 930, subpart H. This section has no impact on the implementation of other subparts and has no impact on the weight given to State agency views on appeal. This change only means that NOAA shall give greater weight to the views of Federal agencies commenting in their areas of technical expertise over the views of other Federal agencies who are not commenting in their area of technical expertise. This section does not pit Federal agency views against State views. For example, an authorizing Federal agency has developed an EIS under NEPA for its proposed action to issue a federal authorization. The authorizing Federal agency certainly has some knowledge of environmental impacts, but suppose there is possible harm to an endangered species or a marine mammal. In those cases, the expert Federal agencies would not be the authorizing Federal agency, but would be the Endangered Species Act agencies (the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS)). The views of the Fish and Wildlife Service and NMFS would be accorded greater weight than the authorizing Federal agency, or another Federal agency who might also happen to comment on the ESA or MMPA issues.

*Comment 101*. The proposed change would allow the Secretary to reopen the period for Federal agency comments. All interested or affected parties, not just Federal agencies, should be able to submit comments if the Secretary reopens the period for comments. The change appears to accommodate the time extension request of a Federal agency while excluding other parties from submitting comments.

NOAA *Response to Comment 101*. In order to meet the more restricted time period for closing the decision record, the public comment period will not be re-opened, except as described in the regulation if the Secretary holds a public hearing. Parties submit their views according to the briefing schedule. In most cases this will also apply to Federal agencies. However, there may be instances when the Secretary will need further input from the authorizing Federal agency or an expert Federal agency. In these cases,

the Secretary may reopen the period for Federal agency comments, when there is good cause shown, but before the record closes.

*Comment 102*. Section 930.128(b) suggests that the public could be required to comment prior to the availability of NEPA documents and other important information that clarify the nature of the proposed action and the potential for impacts on the State's coastal zone.

NOAA *Response to Comment 102*. As explained above in response to comments on § 930.127, the Secretary needs sufficient information to make a decision. The Secretary does not necessarily need to obtain all conceivable views on every item submitted for the record. Further, the shorter deadlines imposed by the proposed rule and the Energy Policy Act dictate a more streamlined appeals process that requires NOAA to establish a revised process for input by the parties, the public and Federal agencies.

#### *Section 930.129—Dismissal, Remand, Stay, and Procedural Override*

*Comment 103*. If the Secretary remands the case back to the State, because new information relevant to the State's objection arises, NOAA proposes to reduce the period for State comments from three months to 20 days. It would be virtually impossible for States to comply with this change and it is likely that information on the alternative would not be complete. As a new alternative, there would not be a complete design or adequate environmental evaluation. Rather, the States will be considering a conceptual plan. In addition, the change would eliminate public participation in the process, which is one of the cornerstones of federal consistency. In California's case, the CCC and the BCDC meet only once every 30 days. Under this proposal, insufficient time would be available for us to conduct a public hearing and determine consistency with our program.

NOAA *Response to Comment 103*. This change is needed to address the new time frame for closing the decision record. The remand to the State is not a new review of the entire project and does not require public comment at the State level. The remand is for the State to reconsider its previous objection in light of the new information. Public comment on appeals is provided by the Secretary under § 930.128. However, in response to the comment, NOAA believes that a maximum time for remand is not needed and that the Secretary can choose a period longer than 20 days or might choose a period



less than 20 days, depending on the time remaining in the 160-day period to develop the record. Therefore, the "exceed 20 days" language has been removed.

*Comment 104.* The change to paragraph (c) would remove the Secretary's ability to remand the appeal for reasons other than those allowed under section 930.130 governing the stay of closing of the decision record. This would have the effect of discouraging applicant-State agency resolution of issues through negotiation, since it would no longer allow settlement or negotiation as a basis for remanding an appeal. Issues would remain unresolved, until the Secretary decides them in favor of one side or the other.

*NOAA Response to Comment 104.* Open-ended remands are no longer possible under a definitive date in which to close the decision record.

*Comment 105.* Section 930.129(b) should be modified by inserting the words "including the enforceable policies of the State," after the word Act.

*NOAA Response to Comment 105.* This change would be, in part, redundant with the remainder of this paragraph. While the Secretary may decide whether the State has complied with CZMA requirements by basing its objection on enforceable policies and objecting in a timely manner, the Secretary does *not* review the substantive basis for the State's decision. The Secretary will not substitute his decision for that of the States. Such an action would be contrary to a basic principle of the CZMA that, CZMA coastal management decisions are made by the States pursuant to State law incorporated into federally approved CMPs. Hence, the Secretary's balancing of the coastal effects with the national interest and applying the CZMA objectives is a *de novo* review.

#### *Section 930.130—Closure of the Decision Record and Issuance of Decision*

*Comment 106.* We have serious concerns that the consistency appeals process has caused undue delays in energy projects. Furthermore, NOAA's proposed rule, while providing clarity to some definitions, fails to ensure that consistency appeal decisions are made in a timely fashion. NOAA's proposal establishes an unnecessarily long 270-day window for record closure. Since the federal permit agency's decision must have fully considered the expertise of all relevant federal and State agencies, as well as project need,

alternatives, and coastal impact mitigation to satisfy court review, NOAA should close its record immediately upon receiving final party briefs (API asks for a 120–180 day period to develop the decision record). At that point the Secretary has all record evidence necessary to decide any appeal. Further, NOAA's proposed deadline exceptions for *additional* environmental or biological opinions are not needed for any appellate review and would simply delay the appeal. We request that NOAA change its proposal to comply with congressional intent that the Secretary decide these appeals expeditiously.

*Comment 107.* While appeals to the Secretary are relatively rare, they do have the potential to significantly impact proposed projects in which the mere fact of delay can sometimes be fatal to the ability to continue with the project. In such cases, we feel that it would be beneficial to process appeals to the Secretary of Commerce on a fast-track basis. We suggest a process in which the record on appeal consists of documentation compiled by the State and the relevant Federal agencies from which approvals for the projects must be obtained and that NOAA shall give conclusive weight to and be bound by any prior determination by a Federal agency having authority to authorize the activity determining the national or public interest or the reasonableness of alternatives. After a short briefing period and opportunity for public comment, it is important that a decision be issued as soon as possible and preferably within 90 days.

*NOAA Response to Comments 106 and 107.* NOAA proposed a 270-day period as a reasonable time in which to close the decision record. NOAA felt that the 270-day time period was needed because the authorizing Federal agency's decision record often lacks information needed to address CZMA issues. The Secretary's review is not a review of the State objection, rather it is a *de novo* determination of whether the project is consistent with the objectives of the CZMA or in the interest of national security. The Secretary's judgement is not substituted for that of the authorizing Federal agency regarding the merits of the project, nor does the Secretary determine whether a proposed project complies with other Federal law. However, because of the multiple national interest requirements of the CZMA, the Secretary must evaluate the project in light of the competing CZMA objectives. Varying levels of information and detail are required to make these determinations which are dictated by many factors such

as the nature of the project, scale and scope of effects on coastal uses and resources, alternatives to the proposal, etc. NOAA has amended § 930.127(c)(3) to note the importance of the authorizing Federal agency's administrative decision and record in the Secretary's decision, when that information is submitted to the appeal decision record.

The appeal process is an important component of the CZMA formula to balance State-Federal-private interests. The Secretary's consideration of the national interest in the CZMA objectives is a "check" on the State's authority to block projects affecting State coastal uses or resources. If a State objects to the issuance of a federal authorization, then the project cannot go forward unless the Secretary overrides the State's objection.

An unreasonably short period for developing the decision record and relying solely on the authorizing Federal agency's record could substantially weaken the Secretary's decision to override the State's objection, thus, significantly diminishing this important CZMA safeguard. Moreover, the burden of establishing that the Secretary should override a State's objection generally rests with the permit applicant. NOAA is concerned that the time period proposed by the comment could limit the ability of the applicant/appellant to develop national interest information related to CZMA objectives, by (1) not allowing sufficient time, and (2) forcing all parties to use the authorizing Federal agency's record which is developed for purposes very different than those of the CZMA. To meet the deadlines established by the Energy Policy Act, NOAA has had to further alter some of the appeals procedures to accommodate the new deadlines, provide the parties with a reasonable opportunity to argue their positions, and allow the Secretary sufficient time to evaluate the decision record, draft a decision document and issue a decision.

As described above for rule change 25, § 930.130, the Energy Policy Act replaces NOAA's proposed stay provision with a new stay provision. The Secretary may still use the new stay provisions to obtain NEPA and ESA documents. Again, NOAA emphasizes that doing so allows the Secretary to obtain environmental documents from the authorizing Federal agency and are not *additional* environmental documents developed by the Secretary, but are the environmental NEPA and/or ESA documents required by operation of other Federal law without which the authorizing agency cannot complete its permitting action. The Secretary's

request for these documents does not delay issuance of the federal authorization. If the NEPA and/or ESA documents are completed prior to the appeal or during the 160-day decision record period, then the exception need not be used. The use of the exception is most likely to be used in the OCS oil and gas context where timelines of the OCSLA require the CZMA six-month consistency review period to start before MMS completes NEPA or ESA compliance. Nevertheless, OCS oil and gas projects are not delayed by use of this exception, because MMS cannot issue any license or permit until NEPA or ESA compliance is complete.

*Comment 108.* The Natural Gas Act (NGA), which predates the CZMA by decades, confers on FERC plenary authority to issue certificates of public convenience and necessity to authorize the siting, construction and operation of interstate natural gas pipelines. Numerous Supreme Court decisions validate the preemptive effect of FERC's authority under the NGA. The Congress in 1972 made clear that enactment of the CZMA did not diminish, modify or supercede this preexisting federal authority. CZMA section 307(e). Now, however, the pending appeals from State objections to consistency certifications for proposed interstate pipelines that have received FERC certificates calls into question whether this clear statement by the Congress will be followed. NOAA's final rule should state clearly that it will give due weight to FERC's findings in view of the statutory scheme in the NGA that confers on FERC sole responsibility for determining whether, and under what conditions, a proposed interstate pipeline is required by the public convenience and necessity. The NGA and NEPA require FERC to assess all reasonable alternatives to a pipeline's construction proposal as a key factor in its evaluation and determination. Yet NOAA asserts that it must review alternatives that the protesting coastal State, in that State's judgment, deems consistent with its State coastal management plan. This subverts the comprehensive federal scheme Congress intended for interstate pipeline analysis. State consideration of issues not already covered in the FERC's Environmental Impact Statement (EIS) should, at the very least, be done within the FERC-imposed deadline for State agency comments. This would continue to allow for full State participation, while protecting federal authority to authorize interstate natural gas pipeline construction pursuant to the NGA. Thus, the federal consistency

regulations should be revised to require, as a condition for approval of a State's CZMA program, that the State participate in the FERC's certificate/NEPA environmental review process to ensure that FERC has the opportunity to address the State's concerns. To the extent that the CZMA or regulations thereunder require NOAA to make a determination in its own name (as distinguished from resolving CZMA matters within the FERC certificate process) NOAA should accept the record developed at FERC as being dispositive of the issues reviewed and resolved by the FERC certificate process.

NOAA asserts that it has *de novo* review authority pursuant to the CZMA, without citation to the statute. Absent an express statutory grant of authority for *de novo* review, however, NOAA's authority under CZMA is appellate only. It is black letter law that an "appeal" is an examination by the appropriate review body of a decision record to determine if there are material errors of fact or application of law contained in that record. Therefore, NOAA lacks the authority to engage in a *de novo* review of the interstate pipeline routing alternatives considered by the FERC in the NGA certificate process. NOAA's review fails to address the fact that in considering alternative routes for an interstate pipeline that has been certificated by the FERC, NOAA is engaging in what amounts to the very form of *de novo* review of the Federal agency's decision that NOAA disclaims.

NOAA also asserts that "through the CZMA Congress gave the States the ability to review federal actions, independent of the Federal agencies' reviews." This statement, however, is inconsistent with the fact that the CZMA limits NOAA's consistency review of a federal permit activity to an examination of whether the proposed activity is *consistent to the maximum extent practicable* with the *enforceable policies* of a State's coastal zone management plan. A State policy in its coastal zone management plan that has the effect of blocking the siting of an interstate pipeline could not be enforceable against a federally preemptive NGA. For instance, in the case of an interstate pipeline project that is to be situated within the coastal zone of a State and has been or is to be issued a certificate of public convenience and necessity under NGA section 7(c), 15 U.S.C 717f(c), conditioned on compliance with 16 U.S.C. 1456(c)(3)(A), a State may validly object to a pipeline company's consistency certification only if that objection is based on State policies that satisfy pre-existing substantive federal

constitutional standards and statutory limitations, including those arising under the commerce clause and the supremacy clause.

*NOAA Response to Comment 108.* The NGA may preempt State regulation of interstate natural gas pipeline permitting. However, it does not preempt CZMA requirements. The CZMA is part of a Federal scheme allowing State review of federal authorizations for private activities that have effects on State coastal uses or resources. Thus, both the NGA and CZMA can and must be given the full effect of Federal law.

Consistency with State enforceable policies does not violate any preemptive effect of the NGA because the State review, pursuant to federally approved State enforceable policies, is part of the federal CZMA scheme and is not an intrusion upon FERC's authority under the NGA. No federal license or permit activities are exempt from federal consistency: consistency applies if the activity will have reasonably foreseeable coastal effects. 16 U.S.C. 1456(c)(3)(A), Conference Report at 970-972. The NGA does not explicitly repeal any part of the CZMA. Congress affirmed the no exemption component of the CZMA federal consistency requirement when it reauthorized the CZMA in 1996, with no mention of the NGA. See Pub. L. 104-150. There is also no "affirmative showing of an intention to repeal" the CZMA federal consistency provision in whole or in part. See *Southern Pacific Transportation Co., v. California Coastal Commission*, 520 F. Supp. 800, 805 (N.D. CA 1981). As repeal by implication is not favored, the CZMA must be given effect so long as the CZMA and NGA are not irreconcilable and the CZMA does not stand as an obstacle to the objectives of the NGA. *Id.* Moreover, the Energy Policy Act clearly states that State CZMA review is not affected even though FERC has been given preemptive authority over State regulation under the Natural Gas Act.

As for the State policies, NOAA must approve State enforceable policies. NOAA will not approve State policies that on their face contain requirements that are preempted by Federal law. For example, the State of North Carolina sought to regulate low level aircraft in flight by adopting policies that described specific standards preempted by Federal law administered by the Federal Aviation Administration. The State sought to impose minimum altitude and decibel levels, and other overflight restrictions. NOAA denied the State's request to incorporate the policies into the North Carolina CMP because the policies were, on their face,

preempted. Thus, North Carolina could not use the policies for CZMA federal consistency purposes.

So long as a State's enforceable policies do not specifically describe preempted restrictions the State may apply them through the federal consistency process to interstate pipeline projects. For example, a State may implement enforceable wetland protection policies, but not impermissible regulations for interstate pipeline safety. If a pipeline were to impact State wetlands, then the applicant must be consistent with the State wetland policies. Thus, mitigation may be required or, if mitigation is not available, then the siting of a pipeline may need to be altered, not because the State is attempting to regulate the pipeline, but to address coastal effects through the federal CZMA scheme.

In another case before the Surface Transportation Board (STB) for the abandonment of a railroad line in Massachusetts, NOAA found, and the STB concurred, that the CZMA process and the applicant's compliance with the State's enforceable policies was not preempted by the Interstate Commerce Commission Termination Act of 1995 (ICCTA) (49 U.S.C. 701, 10501). Pursuant to the ICCTA, the STB has exclusive, preemptive, jurisdiction over the construction, acquisition, operation, abandonment or discontinuance of spur, industrial, team, switching, or side tracks, or facilities, even if the tracks are located, or intended to be located, entirely in one State. See *City of Auburn v. The Surface Transportation Board*, 154 F.3d 1025, 1030-1032 (9th Cir. 1998). Nevertheless, the STB has consistently determined that the exercise of State and local government traditional police power functions to protect the health and safety of their citizens may not be preempted if there is minimal impact on interstate commerce and the regulatory action is taken in a non-discriminatory manner. Thus, NOAA and the STB determined that Massachusetts could exercise its CZMA consistency authority in a manner compatible with the ICCTA if the application of the State CMP enforceable policies would not impermissibly burden interstate commerce, restrict the railroad from conducting its necessary operations or otherwise discriminate against railroad activities.

Likewise, under the Federal Power Act, FERC has preemptive jurisdiction over the licensing of hydro-electric facilities. However, applicants for FERC hydroelectric licenses must be consistent with the affected coastal State's federally approved enforceable

policies. See e.g., *Mountain Rhythm Resources v. FERC*, 302 F.3d 958 (9th Cir. Aug. 23, 2002); FERC, Standard Branch Procedure SBP-4-16 (March 1992). In *Mountain Rhythm*, the Court found that there are "federal and state law concerns for protecting and managing coastline that Congress has declared to be limitations on FERC's power. Specifically, the [CZMA] provides that if a hydropower project is located in a state's coastal zone, then FERC cannot issue the license unless the state's applicable agency concurs that the proposed project is consistent with the state's Coastal Zone Management Program \* \* \*." *Mountain Rhythm* at 960. The Court also found that implementation of the State's permit program, through the CZMA federal consistency process, does not "strip[] the federal government of its exclusive grant of authority to issue licenses for hydropower projects. But the [State] permit is not a power permit; it is merely part of the consistency evaluation process invoked by the responsible state agency, DOE, in exercising its authority to assess consistency with state coastal zone management that Congress has granted to the states in the CZMA." *Mountain Rhythm* at 967. The Court further elaborated that the State's "permit does not in any way supplant FERC's authority, but is a confirmation that a proposed project complies with state waterway zoning regulations. FERC remains the only authority that can issue power licenses. And with the deliberate concurrence of the Secretary of Commerce about consistency with the CZMA, FERC may do this even over state objection. There has been in this case no improper interference by state or local government with federal authority." *Id.*

The Ninth Circuit's statements are consistent with CZMA section 307(e), which provides that the CZMA does not diminish either Federal or State jurisdiction, responsibility, or rights and does not supersede, modify, or repeal existing Federal law. However, Congress clearly envisioned that Federal agencies and applicants for federal authorizations might have to modify their activities to be consistent with State enforceable policies. For Federal agency activities, Congress requires Federal agencies to be consistent to the maximum extent practicable. For federal license or permit activities, applicants must be fully consistent with the State's federally approved enforceable policies. Congress initially intended and has subsequently affirmed that State consistency reviews based on State laws approved by NOAA

would be applied to license or permit activities to be authorized by other Federal agencies with objectives different from those in the CZMA. It would be incongruous for Congress to provide a mechanism for State review of Federal agency activities and federally authorized activities in one section and then remove that requirement in another section. Section 307(e) is merely a standard savings clause ensuring that laws administered by Federal and State agencies are not altered by the CZMA. S. Rep. No. 753, 92nd Cong., 2d Sess. 20 (1972). Moreover, Congress, in discussing sections 307(f) and 307(e), stated that these sections are provided so that Federal agencies are not shielded from compliance with more stringent environmental requirements of other Federal or State laws by a finding that it is consistent to the maximum extent practicable with the CZMA. 136 Cong. Rec. 8077 (Sep. 26, 1990).

So long as State policies do not include specific preempted restrictions and a State's policies are implemented in a manner contemplated by the CZMA, then the State is acting properly. See *Norfolk Southern Corp. v. Oberly*, 822 F.2d 388, 394-395 (1987) ("While the CZMA states a national policy in favor of coastal zone management, it does not on its face expand state authority to regulate in ways that would otherwise be invalid under the Commerce Clause").

The CZMA mandates that the Secretary conduct an "appeal," to establish "that the activity is consistent with the objectives of this chapter or is otherwise necessary in the interest of national security," but says nothing about reviewing the substantive basis of the State's decision. This statutory standard for the Secretary's review demands a *de novo* review, a new review, of the activity, even though the State found it objectionable. If, for purposes of interstate pipelines, an alternative route considered by FERC, or not considered by FERC (e.g., an alternative route is explored after the FERC process, but before completion of the CZMA process), is found to meet CZMA objectives and is reasonable and available (including a State determination that the alternative is consistent with the State's program), and the Secretary then overrides the State's objection, then the Secretary is fulfilling the duties prescribed by Congress in the CZMA to balance the State-Federal-private interests within the objectives of the CZMA.

*Comment 109.* The regulations should maintain the Secretary's discretion as to the length of time needed for issuing a judicious decision. Any effort to force

that period into a shorter time period may encourage additional litigation (thereby lengthening the process), if an appellant or a State believes its interests were not adequately considered.

*NOAA Response to Comment 109.* As described in the explanation, NOAA believes that the appeals can be processed in a more efficient manner and now has 160 days in which to develop the decision record.

*Comment 110.* The State respects the need for certainty in the override process and believes that these proposals reasonably accommodate the needs of the parties. The State does not oppose these changes.

*NOAA Response to Comment 110.* NOAA notes this comment.

*Comment 111.* Section 930.130(a)(2)(ii), purporting to expedite other environmental analyses conducted pursuant to NEPA or the Endangered Species Act, in connection with any extension of the proposed 270-day period for the decision record in a coastal consistency appeal is unnecessary, may infringe upon other coordinated agency processes, and worse, gives the impression that review pursuant to these two environmental statutes can and should be hurried along as interfering with the consistency review process. NOAA should delete the phrase "on an expedited basis."

*NOAA Response to Comment 111.* One of the oft-stated goals of CZMA review is "coordination and simplification of procedures to ensure expedited governmental decisionmaking for the management of coastal resources." CZMA section 303(2)(G). This applies to State CZMA decisions and the Secretary's appeal decisions. To that end, to the extent a NEPA or ESA document being prepared by the authorizing Federal agency for its permit decision is not complete and the Secretary determines the document is needed, then the Federal agencies should endeavor to complete the document in as timely a manner as possible.

*Comment 112.* Section 930.130(a)(2)(ii) limits the Secretary's ability to consider important information that may not be included in NEPA documents or Biological Opinions. The Secretary's ability to make a fully informed decision could be compromised by limiting the Secretary's options in this way. The Secretary should be allowed to extend closure of the record to include any and all relevant information.

*NOAA Response to Comment 112.* The Secretary needs only that information he determines is relevant to the CZMA appeal standard. That

information will be obtained during the period to develop the decision record. The changes to § 930.130 and the rest of subpart H provide sufficient time to develop a decision record and to issue timely decisions.

#### *Subpart I—Interstate Consistency*

*Comment 113.* We question the legal authority for NOAA to establish interstate consistency review requirements. The proposal response to comments that States that the procedure finds support in the "effects tests" is not consistent with the legislative history as we view it, and does not address the fundamental constitutional infirmities concerning a State's ability to review activities taking place wholly within the boundaries of another State.

*NOAA Response to Comment 113.* NOAA continues to rely on the statute and its legislative history for the addition of the Interstate consistency regulations in 2000. NOAA's view is summarized in the preamble to the 2000 rule at 65 FR 77125, 77129–77133, 77152–77153 (Dec. 8, 2000).

#### **VI. Miscellaneous Rulemaking Requirements**

##### *Executive Order 12372: Intergovernmental Review*

This program is subject to Executive Order 12372.

##### *Executive Order 13132: Federalism Assessment*

NOAA concluded that this regulatory action is consistent with federalism principles, criteria, and requirements stated in Executive Order 13132. The changes in the federal consistency regulations will facilitate Federal agency coordination with coastal States, and ensure that federal actions affecting any coastal use or resource are consistent with the enforceable policies of approved State coastal management programs. The CZMA and these revised implementing regulations promote the principles of federalism articulated in Executive Order 13132 by granting the States a qualified right to review certain federal actions that affect the land and water uses or natural resources of State coastal zones. Congress partially waived the Federal Government's supremacy over State law when it created the CZMA. Section 307 of the CZMA and NOAA's implementing regulations effectively balance responsibilities between Federal agencies and State agencies whenever Federal agencies propose activities or applicants for a required federal license or permit propose to undertake activities affecting State coastal uses or resources. Through

the CZMA, Federal agencies are required to carry out their activities in a manner that is consistent to the maximum extent practicable with federally approved State management programs, and licensees and permittees are required to be fully consistent with the State programs. The CZMA and these implementing regulations, rather than preempting a State, provide a mechanism for it to object to federal actions that are not consistent with the State's management program. A State objection prevents the issuance of the federal permit or license, unless the Secretary of Commerce overrides the objection. Because the CZMA and these regulations promote the principles of federalism and enhance State authorities, no federalism assessment need be prepared.

##### *Executive Order 12866: Regulatory Planning and Review*

This regulatory action is significant for purposes of Executive Order 12866.

##### *Executive Order 13211*

Executive Order 13211 requires that agencies prepare and submit a "Statement of Energy Effects" to the Office of Management and Budget for certain actions. These actions include regulations which have been designated as "significant" under Executive Order 12866 and are likely to have a "significant adverse effect" on the supply, distribution, or use of energy. This action will not result in any adverse effect upon the supply, distribution, or use of energy. Rather, this regulation implements recommendations contained in the Energy Report, and serves to improve Federal-State coordination of actions affecting the coastal zone. The rule makes only minor, clarifying changes to existing regulations. To the extent these changes impact energy supply, distribution, or use, they should result in positive effects, by improving the clarity, transparency and predictability of NOAA's CZMA regulations.

##### *Administrative Procedure Act*

Pursuant to authority at 5 U.S.C. 553(b)(B), NOAA waives for good cause the requirement to provide prior notice and an opportunity for public comment on the provisions of this final rule that implement, verbatim, specific provisions of the Energy Policy Act of 2005. Such procedures are unnecessary as NOAA must comply with the law as enacted. Additional provisions of this final rule not explicitly contained in the Energy Policy Act, though necessary for NOAA's compliance with that Act, concern matters addressed in the



proposed rule and by public comment in response to that rule. As such, these provisions are within the scope of the notice previously provided and additional notice and comment are not required.

*Regulatory Flexibility Act*

The Chief Counsel for Regulation for the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration, when this rule was proposed, that the rule, if adopted, would not have a significant economic impact on a substantial number of small entities. This rule only makes minor changes to existing regulations. The existing regulations do not have a significant economic impact on a substantial number of small entities and, thus, these clarifying changes will not result in any additional economic impact on affected entities. No comments were received regarding the certification. Accordingly, the basis for the certification has not changed and neither an initial nor final Regulatory Flexibility Analysis was not prepared.

*Paperwork Reduction Act*

This rule contains no additional collection-of-information requirements subject to review and approval by OMB under the Paperwork Reduction Act (PRA).

*National Environmental Policy Act*

NOAA has concluded that this regulatory action does not have the potential to pose significant impacts on the quality of the human environment. Further, NOAA has concluded that this rule will not result in any changes to the human environment. As defined in sections 5.05 and 6.03c3(i) of NAO 216-6, this action is of limited scope, of a technical and procedural nature and any environmental effects are too speculative or conjectural to lend themselves to meaningful analysis. Thus, this rule is categorically excluded from further review pursuant to NEPA.

**List of Subjects in 15 CFR Part 930**

Administrative practice and procedure, Coastal zone, Reporting and recordkeeping requirements.

Dated: December 21, 2005.

**Craig McLean,**

*Acting Deputy Assistant Administrator for Ocean Services and Coastal Zone Management.*

■ For the reasons stated in the preamble, NOAA amends 15 CFR part 930 as follows:

**PART 930—FEDERAL CONSISTENCY WITH APPROVED COASTAL MANAGEMENT PROGRAMS**

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

*Authority:* 16 U.S.C. 1451 *et. seq.*

■ 2. Section 930.1 is amended by revising paragraphs (b) and (c) to read as follows:

**§ 930.1 Overall objectives.**

\* \* \* \* \*

(b) To implement the federal consistency requirement in a manner which strikes a balance between the need to ensure consistency for federal actions affecting any coastal use or resource with the enforceable policies of approved management programs and the importance of federal activities (the term "federal action" includes all types of activities subject to the federal consistency requirement under subparts C, D, E, F and I of this part.);

(c) To provide flexible procedures which foster intergovernmental cooperation and minimize duplicative effort and unnecessary delay, while making certain that the objectives of the federal consistency requirement of the Act are satisfied. Federal agencies, State agencies, and applicants should coordinate as early as possible in developing a proposed federal action, and may mutually agree to intergovernmental coordination efforts to meet the requirements of these regulations, provided that public participation requirements are met and applicable State management program enforceable policies are considered. State agencies should participate in the administrative processes of federal agencies concerning federal actions that may be subject to state review under subparts C, D, E, F and I of this part.

\* \* \* \* \*

■ 3. Section 930.10 is amended by revising the following entry in the table to read as follows:

**§ 930.10 Index to definitions for terms defined in part 930.**

Term	Section
Failure substantially to comply with an OCS plan .....	930.85(c).

■ 4. Section 930.11 is amended by revising the first sentence of paragraph (g) to read as follows:

**§ 930.11 Definitions.**

\* \* \* \* \*

(g) *Effect on any coastal use or resource (coastal effect).* The term "effect on any coastal use or resource" means any reasonably foreseeable effect on any coastal use or resource resulting from a Federal agency activity or federal license or permit activity (including all types of activities subject to the federal consistency requirement under subparts C, D, E, F and I of this part.) \* \* \*

\* \* \* \* \*

■ 5. Section 930.31 is amended by revising paragraphs (a) and (d) to read as follows:

**§ 930.31 Federal agency activity.**

(a) The term "Federal agency activity" means any functions performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities. The term "Federal agency activity" includes a range of activities where a Federal agency makes a proposal for action initiating an activity or series of activities when coastal effects are reasonably foreseeable, e.g., a Federal agency's proposal to physically alter coastal resources, a plan that is used to direct future agency actions, a proposed rulemaking that alters uses of the coastal zone. "Federal agency activity" does not include the issuance of a federal license or permit to an applicant or person (see subparts D and E of this part) or the granting of federal assistance to an applicant agency (see subpart F of this part).

\* \* \* \* \*

(d) A general permit proposed by a Federal agency is subject to this subpart if the general permit does not involve case-by-case or individual issuance of a license or permit by a Federal agency. When proposing a general permit, a Federal agency shall provide a consistency determination to the relevant management programs and request that the State agency(ies) provide the Federal agency with review, and if necessary, conditions, based on specific enforceable policies, that would permit the State agency to concur with the Federal agency's consistency determination. State agency concurrence shall remove the need for the State agency to review individual uses of the general permit for consistency with the enforceable policies of management programs. Federal agencies shall, pursuant to the consistent to the maximum extent practicable standard in § 930.32, incorporate State conditions into the general permit. If the State agency's conditions are not incorporated into the general permit or a State agency objects to the general permit, then the Federal agency shall notify potential users of the



general permit that the general permit is not available for use in that State unless an applicant under subpart D of this part or a person under subpart E of this part, who wants to use the general permit in that State provides the State agency with a consistency certification under subpart D of this part and the State agency concurs. When subpart D or E of this part applies, all provisions of the relevant subpart apply.

\* \* \* \* \*

■ 6. Section 930.35 is amended by redesignating paragraph (d) as paragraph (e) and by adding a new paragraph (d) to read as follows:

**§ 930.35 Negative determinations for proposed activities.**

\* \* \* \* \*

(d) *General Negative Determinations.* In cases where Federal agencies will be performing a repetitive activity that a Federal agency determines will not have reasonably foreseeable coastal effects, whether performed separately or cumulatively, a Federal agency may provide a State agency(ies) with a general negative determination, thereby avoiding the necessity of issuing separate negative determinations for each occurrence of the activity. A general negative determination must adhere to all requirements for negative determinations under § 930.35. In addition, a general negative determination must describe in detail the activity covered by the general negative determination and the expected number of occurrences of the activity over a specific time period. If a Federal agency issues a general negative determination, it may periodically assess whether the general negative determination is still applicable.

\* \* \* \* \*

■ 7. Section 930.37 is amended by adding a new third sentence to read as follows:

**§ 930.37 Consistency determinations and National Environmental Policy Act (NEPA) requirements.**

\* \* \* State agencies shall not require Federal agencies to submit NEPA documents as information required pursuant to § 930.39. \* \* \*

■ 8. Section 930.41 is amended by revising paragraph (a) to read as follows:

**§ 930.41 State agency response.**

(a) A State agency shall inform the Federal agency of its concurrence with or objection to the Federal agency's consistency determination at the earliest practicable time, after providing for public participation in the State agency's review of the consistency determination. The Federal agency may

presume State agency concurrence if the State agency's response is not received within 60 days from receipt of the Federal agency's consistency determination and supporting information required by § 930.39(a). The 60-day review period begins when the State agency receives the consistency determination and supporting information required by § 930.39(a). If the information required by § 930.39(a) is not included with the determination, the State agency shall notify the Federal agency in writing within 14 days of receiving the determination and supporting information that the 60-day review period has not begun, identify missing information required by § 930.39(a), and that the 60-day review period will begin when the missing information is received by the State agency. If the State agency has not notified the Federal agency that information required by § 930.39(a) is missing within the 14 day notification period, then the 60-day review period shall begin on the date the State agency received the consistency determination and accompanying information. The State agency's determination of whether the information required by § 930.39(a) is complete is not a substantive review of the adequacy of the information provided. Thus, if a Federal agency has submitted a consistency determination and information required by § 930.39(a), then the State agency shall not assert that the 60-day review period has not begun because the information contained in the items required by § 930.39(a) is substantively deficient. The failure to submit information not required by 930.39(a) shall not be a basis for asserting that the 60-day review period has not begun.

\* \* \* \* \*

■ 9. Section 930.51 is amended by revising paragraph (a) and paragraph (e) to read as follows:

**§ 930.51 Federal license or permit.**

(a) The term "federal license or permit" means any authorization that an applicant is required by law to obtain in order to conduct activities affecting any land or water use or natural resource of the coastal zone and that any Federal agency is empowered to issue to an applicant. The term "federal license or permit" does not include OCS plans, and federal license or permit activities described in detail in OCS plans, which are subject to subpart E of this part, or leases issued pursuant to lease sales conducted by a Federal agency (e.g., outer continental shelf (OCS) oil and gas lease sales conducted by the Minerals Management Service or oil and gas lease

sales conducted by the Bureau of Land Management). Lease sales conducted by a Federal agency are Federal agency activities under subpart C of this part.

\* \* \* \* \*

(e) The determination of substantially different coastal effects under paragraphs (b)(3), and (c) of this section is made on a case-by-case basis by the Federal agency after consulting with the State agency, and applicant. The Federal agency shall give considerable weight to the opinion of the State agency. The terms "major amendment," "renewals" and "substantially different" shall be construed broadly to ensure that the State agency has the opportunity to review activities and coastal effects not previously reviewed.

\* \* \* \* \*

■ 10. Section 930.58 is amended by revising paragraph (a)(1) and the third sentence of paragraph (a)(2) and adding a new fourth sentence and a new fifth sentence in paragraph (a)(2) to read as follows:

**§ 930.58 Necessary data and information.**

(a) \* \* \*

(1) A copy of the application for the federal license or permit and

(i) All material relevant to a State's management program provided to the Federal agency in support of the application; and

(ii) To the extent not included in paragraphs (a)(1) or (a)(1)(i) of this section, a detailed description of the proposed activity, its associated facilities, the coastal effects, and any other information relied upon by the applicant to make its certification. Maps, diagrams, and technical data shall be submitted when a written description alone will not adequately describe the proposal;

(2) \* \* \* Necessary data and information may include completed State or local government permit applications which are required for the proposed activity, but shall not include the issued State or local permits. NEPA documents shall not be considered necessary data and information when a Federal statute requires a Federal agency to initiate the CZMA federal consistency review prior to its completion of NEPA compliance. States shall not require that the consistency certification and/or the necessary data and information be included in NEPA documents. \* \* \*

\* \* \* \* \*

■ 11. Section 930.60 is revised to read as follows:

**§ 930.60 Commencement of State agency review.**

(a) The State agency's six-month review period (see § 930.62(a)) of an applicant's consistency certification begins on the date the State agency receives the consistency certification required by § 930.57 and all the necessary data and information required by § 930.58(a).

(1) If an applicant fails to submit a consistency certification, the State agency shall notify the applicant and the Federal agency, within 30 days of receipt of the incomplete submission, that a consistency certification satisfying § 930.57 was not received and that the State agency's six-month review period will commence on the date of receipt of the missing certification, subject to paragraph (a)(2) of this section.

(2) If an applicant fails to submit all necessary data and information required by § 930.58(a), the State agency shall notify the applicant and the Federal agency, within 30 days of receipt of the incomplete submission, that necessary data and information described in § 930.58(a) was not received and that the State agency's six-month review period will commence on the date of receipt of the missing necessary data and information, subject to the requirement in paragraph (a) of this section that the applicant has also submitted a consistency certification. The State agency may waive the requirement in paragraph (a) of this section that all necessary data and information described in § 930.58(a) be submitted before commencement of the State agency's six-month consistency review. In the event of such a waiver, the requirements of § 930.58(a) must be satisfied prior to the end of the six-month consistency review period or the State agency may object to the consistency certification for insufficient information.

(3) Within 30 days of receipt of the consistency certification and/or necessary data and information that was deemed missing, pursuant to paragraphs (a)(1) or (2) of this section, the State agency shall notify the applicant and Federal agency that the certification and necessary data and information required pursuant to § 930.58 is complete, the date the certification and/or necessary data and information deemed missing was received, and, that the State agency's consistency review commenced on the date of receipt. In the event of a State waiver under paragraph (a)(2) of this section, receipt of the necessary data and information deemed missing shall not alter the date

the consistency review period commenced.

(b) State agencies and applicants (and persons under subpart E of this part) may mutually agree in writing to stay the six-month consistency review period. Such an agreement shall be in writing and state a specific date on when the stay will end. The State agency shall provide a copy of the written agreement to the Federal agency and the Federal agency shall not presume State agency concurrence with an applicant's consistency certification when such a written agreement to stay the six-month consistency review period is in effect. The State agency shall not stop, stay, or otherwise alter the consistency review period without such a written agreement with the applicant.

(c) The State agency's determination that a certification and necessary data and information under paragraph (a) of this section is complete is not a substantive review of the adequacy of the information received. If an applicant has submitted all necessary data and information required by § 930.58, then a State agency's or Federal agency's assertion that the submitted information is substantively deficient, or a State agency's or Federal agency's request for clarification of the information provided, or information or data requested that is in addition to that required by § 930.58 shall not extend the date of commencement of State agency review.

■ 11a. Section 930.46 is amended by adding a new paragraph (a)(3) to read as follows:

**§ 930.46 Supplemental coordination for proposed activities.**

(a) \* \* \*

(3) Substantial changes were made to the activity during the period of the State agency's initial review and the State agency did not receive notice of the substantial changes during its review period, and these changes are relevant to management program enforceable policies and/or affect coastal uses or resources.

\* \* \* \* \*

■ 12. Section 930.63 is amended by revising the fourth sentence in paragraph (d) to read as follows:

**§ 930.63 State agency objection to a consistency certification.**

\* \* \* \* \*

(d) \* \* \* See § 930.121(c) for further details regarding alternatives for appeals under subpart H of this part.

\* \* \* \* \*

■ 12a. Section 930.66 is amended by adding a new paragraph (a)(3) to read as follows:

**§ 930.66 Supplemental coordination for proposed activities.**

(a) \* \* \*

(3) Substantial changes were made to the activity during the period of the State agency's initial review and the State agency did not receive notice of the substantial changes during its review period, and these changes are relevant to management program enforceable policies and/or affect coastal uses or resources.

\* \* \* \* \*

■ 13. Section 930.76 is amended by removing paragraph (c), redesignating paragraph (d) as paragraph (c), and revising paragraphs (a) and (b) as follows:

**§ 930.76 Submission of an OCS plan, necessary data and information and consistency certification.**

(a) Any person submitting any OCS plan to the Secretary of the Interior or designee shall submit to the Secretary of the Interior or designee:

- (1) A copy of the OCS plan;
- (2) The consistency certification;
- (3) The necessary data and information required pursuant to § 930.58; and
- (4) The information submitted pursuant to the Department of the Interior's OCS operating regulations (see 30 CFR 250.203 and 250.204) and OCS information program regulations (see 30 CFR part 252).

(b) The Secretary of the Interior or designee shall furnish the State agency with a copy of the information submitted under paragraph (a) of this section (excluding confidential and proprietary information).

\* \* \* \* \*

■ 14. Section 930.77 is amended by revising paragraph (a) to read as follows:

**§ 930.77 Commencement of State agency review and public notice.**

(a)(1) Except as provided in § 930.60(a), State agency review of the person's consistency certification begins at the time the State agency receives the certification and information required pursuant to § 930.76(a) and (b). If a person has submitted the documents required by § 930.76(a) and (b), then a State agency's assertion that the information contained in the submitted documents is substantively deficient, or a State agency's request for clarification of the information provided, or information and data in addition to that required by § 930.76 shall not delay or otherwise change the date on which State agency review begins.

(2) To assess consistency, the State agency shall use the information submitted pursuant to § 930.76. If a State agency wants to augment the necessary data and information required by § 930.76 to start the six-month review period for OCS plans, then the State can only do so if it amends its management program to include the information under § 930.58(a)(2).

(3) After the State agency's review begins, if the State agency requests additional information, it shall describe in writing to the person and to the Secretary of the Interior or its designee the reasons why the information provided under § 930.76 is not adequate to complete its review, and the nature of the information requested and the necessity of having such information to determine consistency with the enforceable policies of the management program. The State agency shall make its request for additional information no later than three months after commencement of the State agency's review period. The State agency shall not request additional information after the three-month notification period described in § 930.78(a). However, the State agency may request additional information after the three-month notification period if the person or the Secretary of the Interior or its designee changes the OCS plan after the three-month notification period such that the plan describes activities or coastal effects not previously described and for which information was not previously provided pursuant to § 930.76.

\* \* \* \* \*  
■ 15. Section 930.82 is revised to read as follows:

**§ 930.82 Amended OCS plans.**

If the State agency objects to the person's OCS plan consistency certification, and/or if, pursuant to subpart H of this part, the Secretary does not determine that each of the objected to federal license or permit activities described in detail in such plan is consistent with the objectives or purposes of the Act, or is necessary in the interest of national security, and if the person still intends to conduct the activities described in the OCS plan, the person shall submit an amended plan to the Secretary of the Interior or designee along with a consistency certification and data and information necessary to support the amended consistency certification. The data and information shall specifically describe modifications made to the original OCS plan, and the manner in which such modifications will ensure that all of the proposed federal license or permit activities

described in detail in the amended plan will be conducted in a manner consistent with the management program. When satisfied that the person has met the requirements of the OCSLA and this subpart, the Secretary of the Interior or designee shall furnish the State agency with a copy of the amended OCS plan (excluding confidential and proprietary information), necessary data and information and consistency certification.

■ 16. Section 930.85 is amended by revising the section heading and removing paragraph (d) and revising paragraph (b) and paragraph (c) to read as follows:

**§ 930.85 Failure to substantially comply with an approved OCS plan.**

\* \* \* \* \*  
(b) If a State agency claims that a person is failing to substantially comply with an approved OCS plan subject to the requirements of this subpart, and such failure allegedly involves the conduct of activities affecting any coastal use or resource in a manner that is not consistent with the approved management program, the State agency shall transmit its claim to the Minerals Management Service region involved. Such claim shall include a description of the specific activity involved and the alleged lack of compliance with the OCS plan, and a request for appropriate remedial action. A copy of the claim shall be sent to the person.

(c) If a person fails to substantially comply with an approved OCS plan, as determined by Minerals Management Service, pursuant to the Outer Continental Shelf Lands Act and applicable regulations, the person shall come into compliance with the approved plan or shall submit an amendment to such plan or a new plan to Minerals Management Service. When satisfied that the person has met the requirements of the OCSLA and this subpart, and the Secretary of the Interior or designee has made the determination required under 30 CFR 250.203(n)(2) or § 250.204(q)(2), as applicable, the Secretary of the Interior or designee shall furnish the State agency with a copy of the amended OCS plan (excluding proprietary information), necessary data and information and consistency certification. Sections 930.82 through 930.84 shall apply to further State agency review of the consistency certification for the amended or new plan.

■ 16a. Section 930.101 is amended by adding a new paragraph (a)(3) to read as follows:

**§ 930.101 Supplemental coordination for proposed activities.**

(a) \* \* \*

(3) Substantial changes were made to the activity during the period of the State agency's initial review and the State agency did not receive notice of the substantial changes during its review period, and these changes are relevant to management program enforceable policies and/or affect coastal uses or resources.

\* \* \* \* \*

■ 17. Section 930.121 is amended by revising paragraph (c) to read as follows:

**§ 930.121 Consistent with the objectives or purposes of the Act.**

\* \* \* \* \*

(c) There is no reasonable alternative available which would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program. The Secretary may consider but is not limited to considering previous appeal decisions, alternatives described in state objection letters and alternatives and other information submitted during the appeal. The Secretary shall not consider an alternative unless the State agency submits a statement, in a brief or other supporting material, to the Secretary that the alternative would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program.

■ 18. Section 930.123 is amended by revising the section heading and adding new paragraphs (c), (d) and (e) as follows:

**§ 930.123 Definitions.**

\* \* \* \* \*

(c) The term "energy project" means projects related to the siting, construction, expansion, or operation of any facility designed to explore, develop, produce, transmit or transport energy or energy resources that are subject to review by a coastal State under subparts D, E, F or I of this part.

(d) The term "consolidated record" means the record of all decisions made or actions taken by the lead Federal permitting agency or by another Federal or State administrative agency or officer, maintained by the lead Federal permitting agency, with the cooperation of Federal and State administrative agencies, related to any federal authorization for the permitting, approval or other authorization of an energy project.

(e) The term "lead Federal permitting agency" means the Federal agency required to: issue a federal license or permit under subparts D or I of this part; approve an OCS plan under subpart E

of this part; or provide federal financial assistance under subparts F or I of this part for an energy project.

■ 19. Section 930.125 is amended by redesignating paragraphs (b) through (e) as paragraphs (c) through (f), by adding a new paragraph (b) and by revising the third and fourth sentences in redesignated paragraph (f) as follows:

**§ 930.125 Notice of appeal and application fee to the Secretary.**

\* \* \* \* \*

(b) The appellant's notice of appeal shall include a statement explaining the appellant's basis for appeal of the State agency's objection under § 923.121 of this title, including any procedural arguments pursuant to § 930.129(b). Bases for appeal (including procedural arguments) not identified in the appellant's notice of appeal shall not be considered by the Secretary.

\* \* \* \* \*

(f) \* \* \* If the Secretary denies a request for a waiver and the appellant wishes to continue with the appeal, the appellant shall submit the appropriate fees to the Secretary within 10 days of receipt of the Secretary's denial. If the fees are not received by the 10th day, then the Secretary shall dismiss the appeal.

■ 20. Section 930.127 is revised to read as follows:

**§ 930.127 Briefs and supporting materials.**

(a) Within 30 days of submitting the notice of appeal, as specified in § 930.125, the appellant shall submit to the Secretary its principal brief accompanied by the appendix described in paragraph (c) of this section. Within 60 days of the appellant's filing of the notice of appeal, the State agency shall submit to the Secretary its principal brief accompanied by a supplemental appendix, if any, described in paragraph (c) of this section. Not later than 20 days after appellant's receipt of the State agency's brief, appellant may submit to the Secretary a reply brief accompanied by a supplemental appendix, if any, described in paragraph (c) of this section.

(b) A principal brief shall not exceed 30 double-spaced pages; appellant's reply brief shall not exceed 15 double-spaced pages. Any table of contents, table of citations, or certifications of mailing and/or service do not count toward the page limitations.

(c) The appellant must prepare and file an appendix with its brief containing:

- (1) Its consistency certification;
- (2) The State agency's objection; and
- (3) All such supporting documentation and material as the

appellant deems necessary for consideration by the Secretary. The State agency (or appellant on reply) shall cite to appellant's appendix or may file a supplemental appendix to include additional documentation and material as the State agency (or appellant on reply) deems necessary for consideration by the Secretary that was not included in appellant's appendix (or the State agency's supplemental appendix). The parties are encouraged to discuss the contents of appellant's appendix in order to include in the appendix as much of the supporting documentation and material as any party deems necessary for consideration by the Secretary. In an appeal for an energy project, supporting documentation and material shall be limited to the parts of the consolidated record described in paragraph (i)(1) of this section to which the appellant or the State agency wishes to direct the Secretary's attention.

(d)(1) Both the appellant and State agency shall send four copies of their briefs and supporting materials to the Office of General Counsel for Ocean Services (GCOS), NOAA, 1305 East West Highway, Room 6111 SSMC4, Silver Spring, Maryland 20910. One copy must be in an electronic format compatible (to the extent practicable) with the website maintained by the Secretary to provide public information concerning appeals under the CZMA.

(2) The appellant and State agency shall serve on each other at least one copy of their briefs, supporting materials, and all requests and communications submitted to the Secretary, at the same time that materials are submitted to the Secretary.

(3) Each submission to the Secretary shall be accompanied by a certification of mailing and/or service on the other party. Service may be done by mail or hand delivery. Materials or briefs submitted to the Secretary not in compliance with this subpart may be disregarded and not entered into the Secretary's decision record of the appeal.

(e)(1) The Secretary has broad authority to implement procedures governing the consistency appeal process to ensure efficiency and fairness to all parties. The appeal decision record is composed of the briefs and supporting materials submitted by the State agency and appellant, public comments and the comments, if any, submitted by interested Federal agencies. As noted in § 930.128(c)(1), the Secretary gives deference to the views of interested Federal agencies when commenting in their areas of expertise and takes notice of relevant

administrative decisions, including licenses or permits, related to an appellant's proposed activity when submitted to the appeal decision record. The Secretary determines the content of the appeal decision record. The Secretary may determine, on the Secretary's own initiative, that additional information is necessary to the Secretary's decision, including documents prepared by Federal agencies pursuant to the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) and the Endangered Species Act (16 U.S.C. 1531 *et seq.*), and may request such information.

(2) To promote efficient use of time and resources, the Secretary may, upon the Secretary's own initiative, require the appellant and the State agency to submit briefs and supporting materials relevant only to procedural or jurisdictional issues presented in the Notice of Appeal or identified by the Secretary. Following a decision of the procedural or jurisdictional issues, the Secretary may require briefs on substantive issues raised by the appeal if necessary.

(3) The Secretary may require the appellant and the State agency to submit briefs in addition to those described in paragraphs (a) and (e) of this section as necessary.

(4) Any briefs not requested or required by the Secretary may be disregarded and not entered into the Secretary's decision record of the appeal.

(f) The appellant bears the burden of submitting evidence in support of its appeal and the burden of persuasion.

(g) The Secretary may extend the time for submission, and length, of briefs and supporting materials for good cause.

(h) Where a State agency objection is based in whole or in part on a lack of information, the Secretary shall limit the record on appeal to information previously submitted to the State agency and relevant comments thereon, except as provided for in § 930.129(b) and (c).

(i) Appeal Decision Record for Energy Projects. The provisions of this paragraph apply only to appeals for energy projects.

(1) The Secretary shall use the consolidated record maintained by the lead Federal permitting agency as the initial record for an appeal under this subpart for energy projects.

(2) The appellant's notice of appeal required by § 930.125(a) and (b) must be accompanied by four copies of the consolidated record maintained by the lead Federal permitting agency. One copy of the consolidated record must be in an electronic format compatible (to the extent practicable) with the website



maintained by the Secretary to provide public information concerning appeals under the CZMA. Notwithstanding § 930.125(e), the Secretary may extend the time for filing a notice of appeal in connection with an energy project for good cause shown to allow appellant additional time to prepare the consolidated record for filing.

(3) The appellant and the State agency shall submit briefs as required by paragraphs (a), (b) and (c) of this section.

(4) Supplemental information may be accepted and included in the decision record by the Secretary only as allowed by § 930.130(a)(2).

■ 21. Section 930.128 is revised to read as follows:

**§ 930.128 Public notice, comment period, and public hearing.**

(a) The Secretary shall provide public notice of the appeal within 30 days after the receipt of the Notice of Appeal by publishing a Notice in the **Federal Register** and in a publication of general circulation in the immediate area of the coastal zone likely to be affected by the proposed activity.

(b) Except in the case of appeals involving energy projects, the Secretary shall provide a 30-day period for the public and interested Federal agencies to comment on the appeal. Notice of the public and Federal agency comment period shall be provided in the Notice required in paragraph (a) of this section.

(c)(1) The Secretary shall accord greater weight to those Federal agencies whose comments are within the subject areas of their technical expertise.

(2) The Secretary may, on the Secretary's own initiative or upon written request, for good cause shown, reopen the period for Federal agency comments before the closure of the decision record.

(d) Except in the case of appeals involving energy projects, the Secretary may hold a public hearing in response to a request or on the Secretary's own initiative. A request for a public hearing must be filed with the Secretary within 30 days of the publication of the Notice in the **Federal Register** required in paragraph (a) of this section. If a hearing is held by the Secretary, it shall be

noticed in the **Federal Register** and guided by the procedures described within § 930.113. If a hearing is held by the Secretary, the **Federal Register** notice for the hearing shall reopen the public and Federal agency comment period and shall close such comment period 10 days after the hearing.

■ 22. Section 930.129 is amended by revising paragraph (c) and paragraph (d) to read as follows: †

**§ 930.129 Dismissal, remand, stay, and procedural override.**

\* \* \* \* \*

(c) The Secretary may stay the processing of an appeal in accordance with § 930.130.

(d) The Secretary may remand an appeal to the State agency for reconsideration of the project's consistency with the enforceable policies of the State's management program if significant new information relevant to the State agency's objection, not previously provided to the State agency during its consistency review, is submitted to the Secretary. The Secretary shall determine a time period for the remand to the State agency. The time period for remand must be completed within the period described in § 930.130 for the development of the Secretary's decision record. If the State agency responds that it still objects to the activity, then the Secretary shall continue to process the appeal. If the State agency concurs that the activity is consistent with the enforceable policies of the State's management program, then the Secretary shall declare the appeal moot and notify the Federal agency that the activity may be federally approved.

■ 23. Section 930.130 is amended by revising paragraphs (a), (b), (c) and (d) to read as follows:

**§ 930.130 Closure of the decision record and issuance of decision.**

(a)(1) With the exception of paragraph (a)(2) of this section, the Secretary shall close the decision record not later than 160 days after the date that the Secretary's Notice of Appeal is published in the **Federal Register** under § 930.128(a). After closing the decision record, the Secretary shall immediately publish a notice in the **Federal Register**

stating that the decision record has been closed. The notice shall also state that the Secretary shall not consider additional information, briefs or comments.

(2) The Secretary may stay the closing of the decision record during the 160-day period described in paragraph (a)(1) of this section:

(i) For a specific period mutually agreed to in writing by the appellant and the State agency; or

(ii) As the Secretary determines necessary to receive, on an expedited basis:

(A) Any supplemental information specifically requested by the Secretary to complete a consistency review under the Act; or

(B) Any clarifying information submitted by a party to the proceeding related to information in the consolidated record compiled by the lead Federal permitting agency.

(3) The Secretary may only stay the 160-day period described in paragraph (a)(1) of this section for a period not to exceed 60 days.

(b) Not later than 60 days after the date of publication of a **Federal Register** notice stating when the decision record for an appeal has been closed, the Secretary shall issue a decision or publish a notice in the **Federal Register** explaining why a decision cannot be issued at that time. The Secretary shall issue a decision not later than 15 days after the date of publication of a **Federal Register** notice explaining why a decision cannot be issued within the 60-day period.

(c) The decision of the Secretary shall constitute final agency action for the purposes of the Administrative Procedure Act.

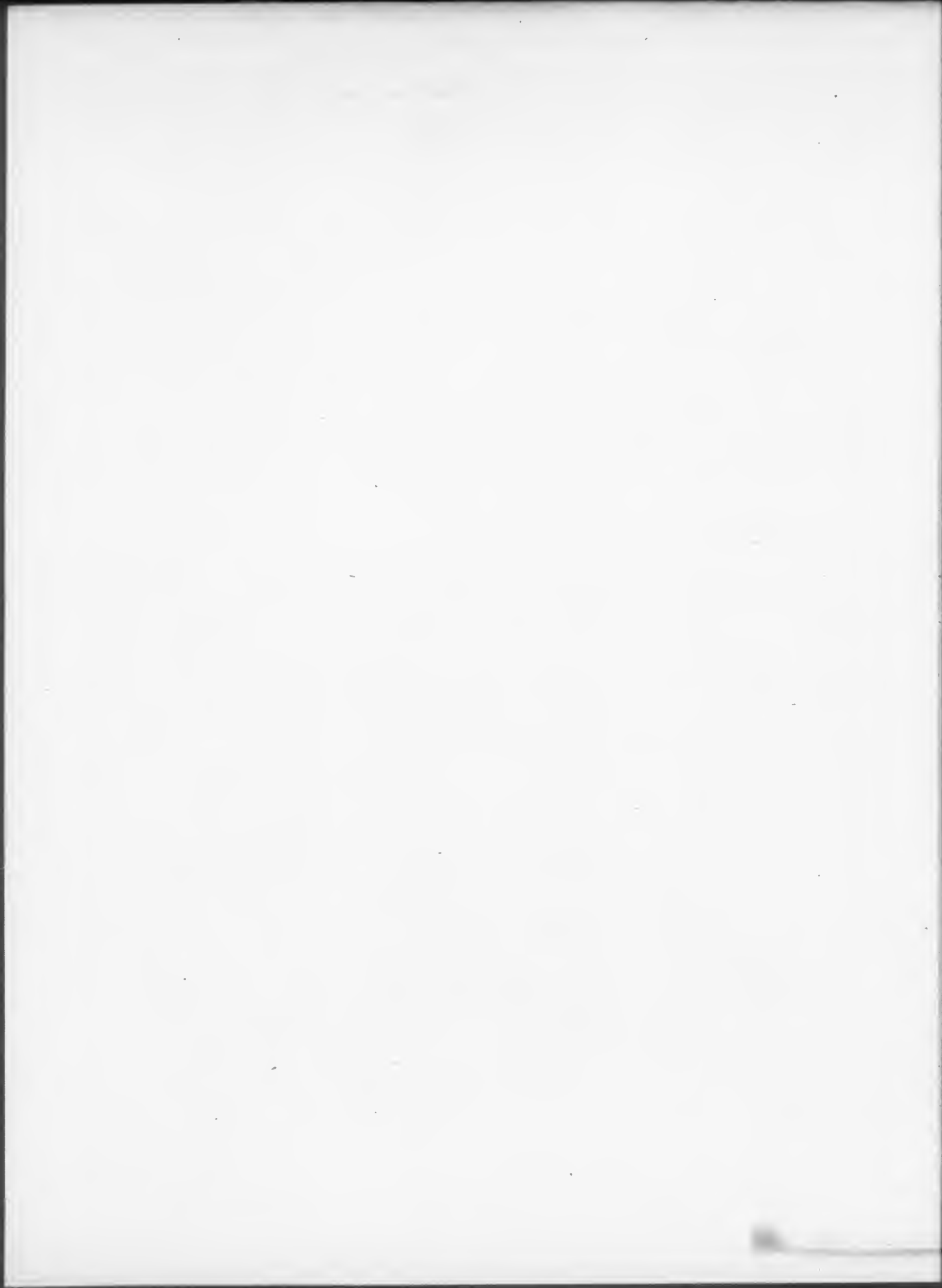
(d) In reviewing an appeal, the Secretary shall find that a proposed federal license or permit activity, or a federal assistance activity, is consistent with the objectives or purposes of the Act, or is necessary in the interest of national security, when the information in the decision record supports this conclusion.

\* \* \* \* \*

[FR Doc. 06-11 Filed 1-4-06; 8:45 am]

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# Federal Register

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Thursday,  
January 5, 2006

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## Part IV

### Department of Commerce

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National Oceanic and Atmospheric  
Administration

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50 CFR Parts 223 and 224

Endangered and Threatened Species: Final  
Listing Determinations for 10 Distinct  
Population Segments of West Coast  
Steelhead; Final Rule

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Parts 223 and 224

[Docket No. 051216341-5341-01; I.D. No. 052104F]

RIN 0648-AR93

## Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** We, NOAA's National Marine Fisheries Service (NMFS), are issuing final determinations to list 10 Distinct Population Segments (DPSs) of West Coast steelhead (*Oncorhynchus mykiss*) under the Endangered Species Act (ESA) of 1973, as amended. We are listing one steelhead DPS in California as endangered (the Southern California steelhead DPS), and nine steelhead DPSs in California, Oregon, Washington, and Idaho as threatened (the South-Central California Coast, Central California Coast, California Central Valley, Northern California, Lower Columbia River, Upper Willamette River, Middle Columbia River, Upper Columbia River, and Snake River Basin steelhead DPSs). All 10 of these DPSs were previously listed as threatened or endangered species. The Upper Columbia River steelhead DPS, formerly listed as an endangered species, is now being listed as threatened.

**DATES:** The effective date of this rule is February 6, 2006.

**ADDRESSES:** NMFS, Protected Resources Division, 1201 NE Lloyd Boulevard, Suite 1100, Portland, Oregon 97232.

**FOR FURTHER INFORMATION CONTACT:** Craig Wingert, NMFS, Southwest Region, at (562) 980-4021, Dr. Scott Rumsey, NMFS, Northwest Region, Protected Resources Division, at (503) 872-2791, and Marta Nammack, NMFS, Office of Protected Resources, at (301) 713-1401. Reference materials regarding these determinations are available upon request or on the Internet at <http://www.nwr.noaa.gov>.

**SUPPLEMENTARY INFORMATION:****Background***Policies for Delineating Species under the ESA*

Section 3 of the ESA defines "species" as including "any subspecies

of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." The term "distinct population segment" is not recognized in the scientific literature. In 1991 we issued a policy for delineating distinct population segments of Pacific salmon (56 FR 58612; November 20, 1991). Under this policy a group of Pacific salmon populations is considered an "evolutionarily significant unit" (ESU) if it is substantially reproductively isolated from other conspecific populations, and it represents an important component in the evolutionary legacy of the biological species. Further, an ESU is considered to be a "distinct population segment" (and thus a "species") under the ESA. In 1996, we and FWS adopted a joint policy for recognizing DPSs under the ESA (DPS Policy; 61 FR 4722; February 7, 1996). The DPS Policy adopts criteria similar to, but somewhat different from, those in the ESU Policy for determining when a group of vertebrates constitutes a DPS: The group must be discrete from other populations, and it must be significant to its taxon. A group of organisms is discrete if it is "markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, and behavioral factors." Significance is measured with respect to the taxon (species or subspecies) as opposed to the full species. Although the ESU Policy did not by its terms apply to steelhead, the DPS Policy states that NMFS will continue to implement the ESU Policy with respect to "Pacific salmonids" (which include *O. mykiss*). FWS, however, does not use our ESU policy in any of its ESA listing decisions. In a previous instance of shared jurisdiction over a species (Atlantic salmon), we and FWS used the DPS policy in our determination to list the Gulf of Maine DPS of Atlantic salmon as endangered (65 FR 69459; November 17, 2000). Given our shared jurisdiction over *O. mykiss*, and consistent with our approach for Atlantic salmon, we believe application of the joint DPS policy here is logical, reasonable, and appropriate for identifying DPSs of *O. mykiss*. Moreover, use of the ESU policy—originally intended for Pacific salmon—should not continue to be extended to *O. mykiss*, a type of salmonid with characteristics not typically exhibited by Pacific salmon. NMFS and FWS also intend to continue to evaluate application of the statutory term "distinct population segment" in a

process outside the context of a species-specific listing.

*Previous Federal ESA Actions Related to West Coast Steelhead*

In 1996, we completed a comprehensive status review of West Coast steelhead (Busby *et al.*, 1996) that resulted in proposed listing determinations for 10 steelhead ESUs, five as endangered and five as threatened species (61 FR 41541; August 9, 1996). On August 18, 1997, we listed five of the ESUs, two as endangered (the Southern California and Upper Columbia River steelhead ESUs) and three as threatened (the South-Central California Coast, Central California Coast, and Snake River Basin steelhead ESUs) (62 FR 43937). On March 19, 1998, we listed the California Central Valley and Lower Columbia River steelhead ESUs as threatened. On March 25, 1999, we listed as threatened the Upper Willamette River and Middle Columbia River steelhead ESUs (64 FR 14517). We listed the Northern California steelhead ESU as threatened on June 7, 2000 (65 FR 36074). As a result of these listing determinations, there are currently 10 listed steelhead ESUs, two endangered (Southern California and Upper Columbia River) and eight threatened (South-Central California, Central California Coast, California Central Valley, Northern California, Upper Willamette River, Lower Columbia River, Middle Columbia River, and Snake River Basin).

In our August 18, 1997, steelhead listing determinations, we noted uncertainties about the relationship of resident and anadromous *O. mykiss*, yet concluded that the two forms are part of a single ESU where the resident and anadromous *O. mykiss* have the opportunity to interbreed (62 FR 43937, at 43941). FWS, the agency with ESA jurisdiction over resident *O. mykiss*, disagreed that resident fish should be included in the steelhead ESUs and advised that the resident fish not be listed (FWS, 1997; and 62 FR 43937, at 43941). Accordingly, we listed only the anadromous *O. mykiss* (steelhead) at that time (62 FR 43937, at 43951). That decision was followed in each of the subsequent steelhead listings described in the preceding paragraph.

In 2001, the U.S. District Court in Eugene, Oregon, set aside the 1998 threatened listing of the Oregon Coast coho ESU (*Alesea Valley Alliance v. Evans*, 161 F. Supp. 2d 1154 (D. Or. 2001)) (Alesea). In the Oregon Coast coho listing (63 FR 42587; August 10, 1998), we did not include 10 hatchery stocks determined to be part of the Oregon Coast coho ESU. The court upheld our

policy of considering an ESU to be a DPS, but ruled that once we had delineated a DPS, the ESA did not allow listing only a subset of that DPS. In response to the *Alsea* decision and several listing and delisting petitions, we announced we would conduct an updated status review of 27 West Coast salmonid ESUs, including the 10 listed steelhead ESUs (67 FR 6215, February 11, 2002; 67 FR 48601, July 25, 2002; 67 FR 79898, December 31, 2002).

On June 14, 2004, we proposed to continue applying our ESU Policy to the delineation of DPSs of *O. mykiss*, and to list the 10 *O. mykiss* ESUs including the resident fish that co-occur with the anadromous form (69 FR 33102). We proposed to list one ESU in California as endangered (Southern California), and nine ESUs in California, Oregon, Washington, and Idaho as threatened (South-Central California, Central California Coast, California Central Valley, Northern California, Upper Willamette River, Lower Columbia River, Middle Columbia River, Snake River Basin, and Upper Columbia). In the proposed rule, we noted that the *Alsea* decision required listing of an entire DPS (ESU), in contrast to our prior steelhead-only listings, and stated the scientific principles and working assumptions that we used to determine whether particular resident groups were part of an *O. mykiss* ESU that included anadromous steelhead (69 FR 33102, at 33113). We proposed that where resident (rainbow trout) and anadromous (steelhead) *O. mykiss* occur in the same stream, they are not "substantially reproductively isolated" from one another and are therefore part of the same ESU.

Following an initial public comment period of 90 days, we twice extended the public comment period for an additional 36 and 22 days (69 FR 53031, August 31, 2004; 69 FR 61348, October 18, 2004), respectively. During the comment period, we received numerous comments disagreeing with our proposal to include resident populations in the *O. mykiss* ESUs (in general and for specific resident populations) and criticizing how we considered resident *O. mykiss* in evaluating the risk to the continued existence of the whole ESU.

On June 7, 2005, FWS wrote to NMFS (FWS, 2005), stating its concerns about the factual and legal bases for our proposed listing determinations for 10 *O. mykiss* ESUs, specifying issues of substantial disagreement regarding the relationship between anadromous and resident *O. mykiss*. On June 28, 2005, we published a notice in the **Federal Register** announcing a 6-month

extension of the final listing determinations for the subject *O. mykiss* ESUs to resolve the substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determinations (70 FR 37219). As a result of the comments received, we re-opened the comment period on November 4, 2005, to receive comments on a proposed alternative approach to delineating "species" of West Coast *O. mykiss* (70 FR 67130). We proposed to depart from our past practice of applying the ESU Policy to *O. mykiss* stocks, and instead proposed to apply the DPS Policy in determining "species" of *O. mykiss* for listing consideration. We noted that within a discrete group of *O. mykiss* populations, the resident and anadromous life forms of *O. mykiss* remain "markedly separated" as a consequence of physical, physiological, ecological, and behavioral factors, and may therefore warrant delineation as separate DPSs. We solicited comment on whether our final listing determinations should delineate 10 steelhead-only DPSs, list one DPS in California as endangered (Southern California), and list the remaining nine DPSs in California, Oregon, Washington, and Idaho as threatened (South-Central California, Central California Coast, California Central Valley, Northern California, Upper Willamette River, Lower Columbia River, Middle Columbia River, Snake River Basin, and Upper Columbia). The public comment period on this proposed alternative approach closed on December 5, 2005.

#### *Statutory Framework for ESA Listing Determinations*

The ESA defines an endangered species as one that is in danger of extinction throughout all or a significant portion of its range, and a threatened species as one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range (sections 3(6) and 3(20), respectively). The statute requires us to determine whether any species is endangered or threatened because of any of the following five factors: the present or threatened destruction, modification or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other natural or manmade factors affecting its continued existence (Section 4(a)(1)(A)-(E)). We are to make this determination based solely on the best available scientific information after conducting a review of the status of the species and

taking into account any efforts being made by states or foreign governments to protect the species. The focus of our evaluation of the five statutory factors is to evaluate whether and to what extent a given factor represents a threat to the future survival of the species. The focus of our consideration of protective efforts is to evaluate whether and to what extent they address the identified threats and so ameliorate a species' risk of extinction. In making our listing determination, we must consider all factors that may affect the future viability of the species, including whether regulatory and conservation programs are inadequate and allow threats to the species to persist or worsen, or whether these programs are likely to mitigate threats to the species and reduce its extinction risk. The steps we follow in implementing this statutory scheme are to: (1) Delineate the species under consideration; (2) review the status of the species; (3) identify threats facing the species; (4) assess whether certain protective efforts mitigate these threats; and (5) predict the species' future persistence.

As noted above, as part of our listing determinations we must consider efforts being made to protect a species, and whether these efforts ameliorate the threats facing the species and reduce risks to its survival. Some protective efforts may be fully implemented, and empirical information may be available demonstrating their level of effectiveness in conserving the species. Other protective efforts are new, not yet implemented, or have not demonstrated effectiveness. We evaluate such unproven efforts using the criteria outlined in the Policy for Evaluating Conservation Efforts ("PECE" 68 FR 15100; March 28, 2003) to determine their certainties of implementation and effectiveness.

#### **Summary of Comments Received**

We solicited public comment on the proposed listing determinations for West Coast *O. mykiss* for a total of 238 days (69 FR 33102, June 14, 2004; 69 FR 53031, August 31, 2004; 69 FR 61348, October 18, 2004; 70 FR 6840, February 9, 2005; 70 FR 37219, June 28, 2005; 70 FR 67130, November 4, 2005). In addition, we held eight public hearings in the Pacific Northwest, and six public hearings in California concerning the June 2004 West Coast salmon and steelhead proposed listing determinations (69 FR 53031, August 31, 2004; 69 FR 54647, September 9, 2004; 69 FR 61348, October 18, 2004). We solicited public comment again for 30 days on our proposed alternative approach to delineating DPSs of *O.*

*mykiss* (70 FR 67130; November 4, 2005).

A joint NMFS/FWS policy requires us to solicit independent expert review from at least three qualified specialists, concurrent with the public comment period (59 FR 34270; July 1, 1994). We solicited technical review of the scientific information underlying the June 2004 proposed listing determinations, including the proposed determinations for West Coast *O. mykiss*, from over 50 independent experts selected from the academic and scientific community, Native American tribal groups, Federal and state agencies, and the private sector.

In December 2004 the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review (Peer Review Bulletin) establishing minimum peer review standards, a transparent process for public disclosure, and opportunities for public input. The OMB Peer Review Bulletin, implemented under the Information Quality Act (Public Law 106-554), is intended to ensure the quality of agency information, analyses, and regulatory activities and provide for a more transparent peer review process. We consider the scientific information used by the agency in developing the subject listing determinations for West Coast steelhead to be "influential scientific information" in the context of the OMB Peer Review Bulletin.

We believe the independent expert review under the joint NMFS/FWS peer review policy, and the comments received from several academic societies and expert advisory panels, collectively satisfy the Peer Review Bulletin's requirements for "adequate [prior] peer review." We solicited technical review of the proposed hatchery listing policy and salmon and steelhead listing determinations from over 50 independent experts selected from the academic and scientific community, Native American tribal groups, Federal and state agencies, and the private sector. The individuals from whom we solicited review of the proposals and the underlying science were selected because of their demonstrated expertise in a variety of disciplines including: artificial propagation; salmonid biology, taxonomy, and ecology; genetic and molecular techniques and analyses; population demography; quantitative methods of assessing extinction risk; fisheries management; local and regional habitat conditions and processes; and conducting scientific analyses in support of ESA listing determinations. The individuals solicited represent a broad spectrum of perspectives and expertise and include

those who have been critical of past agency actions in implementing the ESA for West Coast salmon and steelhead, as well as those who have been supportive of these actions. These individuals were not involved in producing the scientific information for our determinations and were not employed by the agency producing the documents. In addition to these solicited reviews, several independent scientific panels and academic societies provided technical review of the hatchery listing policy and proposed listing determinations, and the supporting documentation. Many of the members of these panels were individuals from whom we had solicited review. We thoroughly considered, and, as appropriate, incorporated the review comments into these final listing determinations.

In response to the requests for information and comments on the June 2004 proposed listing determinations, we received over 28,250 comments by fax, standard mail, and e-mail. The majority of the comments received were from interested individuals who submitted form letters or form e-mails and addressed general issues not specific to a particular ESU. Comments were also submitted by state and tribal natural resource agencies, fishing groups, environmental organizations, home builder associations, academic and professional societies, expert advisory panels, farming groups, irrigation groups, and individuals with expertise in Pacific salmonids. The majority of respondents focused on the consideration of hatchery-origin fish in ESA listing determinations, with only a few comments specifically addressing the *O. mykiss* ESUs under review. We also received comments from four of the independent experts from whom we had requested technical review of the scientific information underlying the June 2004 proposed listing determinations. The peer reviewers' comments did not specifically address the proposed determinations for the 10 *O. mykiss* ESUs. We received 14 comments in response to the 6-month extension of the final listing determinations for the 10 *O. mykiss* ESUs. The comments reflected a diversity of opinion and generally focused on whether resident populations should be included as part of *O. mykiss* ESUs, and the consideration of resident *O. mykiss* in assessing the extinction risk of ESUs including both resident and anadromous populations. We received 15 comments concerning our November 2005 proposed alternative approach to delineate and list 10 steelhead-only

DPSs of West Coast *O. mykiss*. The majority of the comments were opposed to the proposed alternative approach, though others were supportive. Copies of the full text of comments received are available upon request (see ADDRESSES and FOR FURTHER INFORMATION CONTACT, above).

Below we address the comments received that directly pertain to the listing determinations for West Coast *O. mykiss*. The reader is referred to our June 2005 final hatchery listing policy (70 FR 37204; June 28, 2005) for a summary and discussion of general issues concerning: the inclusion and listing of hatchery programs as part of salmon and steelhead ESUs; and the consideration of artificial propagation in evaluating the extinction risk of salmon and steelhead ESUs. The reader is referred to our June 2005 final listing determinations for 16 salmon ESUs (70 FR 37160; June 28, 2005) for a summary and discussion of general issues related to: the interpretation and application of the hatchery listing policy in our review of the species' status under review; the consideration of efforts being made to protect the species; and amended protective regulations for threatened salmonids. The following summary of issues raised and our responses are organized into six general categories: (1) General comments on the consideration of resident *O. mykiss* in the determination of "species;" (2) general comments on the consideration of resident *O. mykiss* in assessing extinction risk; (3) comments regarding a specific ESU or DPS on the determination of species; (4) comments regarding a specific ESU or DPS on the assessment of extinction risk; (5) comments on the consideration of protective efforts; and (6) comments regarding public notice and opportunities for comment.

#### *General Comments on the Consideration of Resident O. mykiss: Determination of Species*

*Comment 1:* Several commenters felt that we lack sufficient site-specific information to justify our June 2004 proposed inclusion of resident rainbow trout as part of *O. mykiss* ESUs. These commenters felt that our proposal inappropriately extrapolated a few observations universally to all circumstances where resident and anadromous *O. mykiss* have overlapping distributions. Other commenters felt that rainbow trout and steelhead should be considered separate ESUs for biological reasons (differences in behavior, morphology, and ecology); or for policy or legal reasons (such as implementing the purposes of the ESA).



*Response:* Those commenters who noted the lack of site-specific information are correct—we relied on information about the reproductive exchange of some specific co-occurring rainbow trout and steelhead to conclude generally that where the two life forms co-occur, they are sufficiently reproductively related to satisfy our ESU policy. We continue to conclude that the best available scientific information suggests that co-occurring steelhead and rainbow trout are part of the same ESU, as we defined that concept in our ESU policy. Some of the concerns raised by these commenters have persuaded us to alter our approach to delineating DPSs of *O. mykiss*, and rely on the DPS policy rather than the ESU policy. Because we have decided to alter our approach, we do not address these comments in further detail.

*Comment 2:* Several commenters felt we failed to provide a rationale for departing from our long-standing practice of applying the ESU policy. The commenters felt that the choice to use the DPS policy appeared to be based on an arbitrary jurisdictional division between NMFS and FWS, rather than new scientific information supporting an alternative approach. The commenters felt that it is not appropriate to base species delineations on arbitrary divisions between government agencies and the apparent desire to preserve jurisdictional authorities. These commenters stressed that such determinations must be made based on the best available scientific information.

Other commenters supported the use of the DPS policy in delineating species of *O. mykiss*. They felt that consistency between NMFS and FWS would improve the public understanding of the listing process. They also felt that the DPS policy provides flexibility, affording a more practical consideration of resident populations, particularly above impassable dams, that do not warrant ESA protections.

*Response:* In our previous status reviews for West Coast *O. mykiss* we applied our ESU policy and concluded that, where they co-occur and have the opportunity to interbreed, the resident and anadromous life-history forms are part of a single ESU. FWS disagreed that resident *O. mykiss* should be included in the steelhead ESUs and recommended that only the anadromous fish be listed (FWS, 1997). Accordingly, we listed only the steelhead portion of the ESUs. The *Alsea* ruling informed us that this approach to implementing our jurisdiction over *O. mykiss* was invalid; once we have equated an ESU with a DPS, delineated an ESU, and

determined that it warrants listing, we must include all components of the DPS (ESU) in the listing. In our June 2004 proposed listing determinations (69 FR 33102; June 14, 2004), we proposed to continue applying our ESU policy in delineating species of *O. mykiss* for listing consideration, consistent with our previous practice. Informed by the *Alsea* ruling, we proposed to list entire *O. mykiss* ESUs, including both the anadromous and resident components. FWS disagreed with our DPS delineations under the ESU policy, and questioned whether the proposed delineations are consistent with the DPS policy (FWS, 2005).

The preamble to the joint DPS policy acknowledged that “the NMFS [ESU] policy is a detailed extension of this joint policy. Consequently, NMFS will continue to exercise its policy with respect to Pacific salmonids” (61 FR 4722; February 7, 1996). FWS, however, does not use our ESU policy in any of its ESA listing decisions. In a previous instance of shared jurisdiction over a species (Atlantic salmon), we and FWS used the DPS policy in our determination to list the Gulf of Maine DPS of Atlantic salmon as endangered (65 FR 69459; November 17, 2000). Given our shared jurisdiction over *O. mykiss*, and consistent with our approach for Atlantic salmon, we believe application of the joint DPS policy here is logical, reasonable, and appropriate for identifying DPSs of *O. mykiss*. Moreover, use of the ESU policy—originally intended for Pacific salmon—should not continue to be extended to *O. mykiss*, a type of salmonid with characteristics not typically exhibited by Pacific salmon.

*Comment 3:* Two commenters argued that we are required to rely on the taxonomic distinctions established by the scientific community in making our species delineations. Commenters quoted NMFS’ ESA implementing regulations stating that we “shall rely on standard taxonomic distinctions and the biological expertise of the Department and the scientific community regarding the relevant taxonomic group” (50 CFR 424.11(a)). The commenters noted that it is well established in the scientific literature that the resident and anadromous life forms of *O. mykiss* are members of the same taxonomic species, and where they co-occur they are genetically indistinguishable and represent a life-history polymorphism within a single interbreeding population. Several commenters also noted that a group of independent scientific experts (Hey *et al.*, 2005) recently empaneled by NMFS concluded: “For \* \* \* populations in

which anadromous and resident fish appear to be exchanging genes and in which some parents produce progeny exhibiting both life history paths, the two life-history alternatives appear as a form of polymorphism. In these cases there is little justification for putting the resident and anadromous life-history types into different conservation units.”

*Response:* The fact that anadromous steelhead and resident rainbow trout are both part of the biological species taxonomists recognize as *O. mykiss* does not end the inquiry. The statute clearly contemplates listing subunits of species, by defining species to include “subspecies \* \* \* and any distinct population segment of any species \* \* \*” The ESA does not define the term “distinct population segment,” but it is clearly a subset of a taxonomic species. Nor does the ESA refer to conservation units. While we agree with the Hey *et al.* panel’s conclusion that co-occurring resident and anadromous *O. mykiss* are part of a larger conservation unit (which we would consider an ESU), that also is not the end of the inquiry. The joint DPS policy takes a somewhat different approach from the ESU policy to identifying conservation units, which may result, in some cases, in the identification of different conservation units. There are also other potential approaches to delineating a DPS for purposes of the ESA (see Waples, 2005, in press). For reasons described in response to Comment 2, we are applying the DPS policy (see also the response to Comment 4 for additional discussion).

*Comment 4:* Some commenters felt that applying the DPS policy to *O. mykiss* should lead to the same result as the ESU policy, with the co-occurring rainbow trout and steelhead being considered part of the same DPS. The commenters felt that our application of the DPS policy overemphasizes inconsistent and qualitative phenotypic characteristics, and ignores scientific information regarding reproductive exchange and genetic similarity. These commenters cited several empirical studies documenting that resident and anadromous *O. mykiss* are similar genetically when they co-occur with no physical barriers to migration or interbreeding, and that individuals can occasionally produce progeny of the alternate life-history form. The commenters felt that the DPS policy clearly contemplates considering reproductive isolation as part of evaluating discreteness. The commenters noted that the DPS policy states as part of the discreteness criterion that quantitative measures of

genetic discontinuity may provide evidence of discreteness.

The commenters also stressed that the ESA's definition of "species" focuses solely on reproductive exchange. (section 3(16) of the ESA defines the term species as including any "distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature"; emphasis added). The commenters argued that the additional considerations provided in the DPS policy (including marked separation as a consequence of physical, physiological, ecological, and behavioral factors) are supplemental to the primary consideration of reproductive isolation required under the ESA.

**Response:** The ESA requirement that a group of organisms must interbreed when mature to qualify as a DPS is a necessary but not exclusive condition. Under the definition, although all organisms that belong to a DPS must interbreed when mature (at least on some time scale), not all organisms that share some reproductive exchange with members of the DPS must be included in the DPS. The DPS policy outlines other relevant considerations for determining whether a particular group should be delineated as a DPS (*i.e.*, "marked separation" as a consequence of physical, physiological, ecological or behavioral factors).

Although the DPS and ESU policies are consistent, they will not necessarily result in the same delineation of DPSs under the ESA. The statutory term "distinct population segment" is not used in the scientific literature and does not have a commonly understood meaning. NMFS' ESU policy and the joint DPS policy apply somewhat different criteria, with the result that their application may lead to different outcomes in some cases. The ESU policy relies on "substantial reproductive isolation" to delineate a group of organisms, and emphasizes the consideration of genetic and other relevant information in evaluating the level of reproductive exchange among potential ESU components. The DPS policy does not rely on reproductive isolation to determine "discreteness," but on the marked separation of population groups as a consequence of biological factors.

Despite the apparent reproductive exchange between resident and anadromous *O. mykiss*, the two life forms remain markedly separated physically, physiologically, ecologically, and behaviorally. Steelhead differ from resident rainbow trout physically in adult size and fecundity, physiologically by

undergoing smoltification, ecologically in their preferred prey and principal predators, and behaviorally in their migratory strategy. Where the two life forms co-occur, adult steelhead typically range in size from 40–72 cm in length and 2–5 kg body mass, while adult rainbow trout typically range in size from 25–46 cm in length and 0.5–2 kg body mass (Shapovalov and Taft, 1954; Wydoski and Whitney, 1979; Jones, 1984). Steelhead females produce approximately 2,500 to 10,000 eggs, and rainbow trout fecundity ranges from 700 to 4,000 eggs per female (Shapovalov and Taft, 1954; Buckley, 1967; Moyle, 1976; McGregor, 1986; Pauley *et al.*, 1986), with steelhead eggs being approximately twice the diameter of rainbow trout eggs or larger (Scott and Crossman, 1973; Wang, 1986; Tyler *et al.*, 1996). Steelhead undergo a complex physiological change that enables them to make the transition from freshwater to saltwater (smoltification), while rainbow trout reside in freshwater throughout their entire life cycle. While juvenile and adult steelhead prey on euphausiid crustaceans, squid, herring, and other small fishes available in the marine environment, the diet of adult rainbow trout is primarily aquatic and terrestrial insects and their larvae, mollusks, amphipod crustaceans, fish eggs, and minnows (LeBrasseur, 1966; Scott and Crossman, 1973; Wydoski and Whitney, 1979). These differences in diet are a function of migratory behavior and the prey communities available to resident and anadromous *O. mykiss* in their respective environments. Finally, steelhead migrate several to hundreds of miles from their natal streams to the ocean, and spend up to 3 years in the ocean migrating thousands of miles before returning to freshwater to spawn (Busby *et al.*, 1996). Some fluvial populations of rainbow trout may exhibit seasonal migrations of tens of kilometers outside of their natal watersheds, but rainbow trout generally remain associated with their natal drainages (Meka *et al.*, 1999). Given the marked separation between the anadromous and resident life-history forms in physical, physiological, ecological, and behavioral factors, we conclude that the anadromous steelhead populations are discrete from the resident rainbow trout populations within the ranges of the DPSs under consideration.

**Comment 5:** Several commenters were critical of the evidence we provided that co-occurring resident and anadromous *O. mykiss* are markedly separate ("discrete"). Commenters felt that we exaggerated and oversimplified the

differences between anadromous and resident *O. mykiss*, and that much of the evidence presented in support of their "marked separation" is not illustrative of traits unique to a given life-history form. The commenters felt that the majority of the phenotypic differences cited are inconsistent, overlap considerably between the two life forms, and are predominantly caused by environmental factors.

Several commenters were critical of the physical factors we cited as evidence of marked separation between the two life forms. The commenters documented overlap in the size and fecundity ranges of resident and anadromous *O. mykiss* in the same watersheds, and concluded that our assertion that steelhead are generally larger and more fecund than rainbow trout does not hold true. The commenters felt that fish size and fecundity are largely a function of food supply, rather than being a trait inherent to anadromy. The commenters cited examples where, provided sufficient food resources, rainbow trout achieve similar sizes and fecundity as steelhead.

Commenters were critical of the ecological factors we cited. The commenters felt that it is inappropriate to distinguish between the two forms on the basis of diet, as it is a function of prey availability in different environments rather than reflecting intrinsic differences in prey preference. They noted that when steelhead and rainbow trout are in the same freshwater environment, individuals of similar size and life-history stage have similar prey preferences.

Commenters were critical of the behavioral factors we cited. The commenters argued that the two life forms are not "markedly separated" in terms of migratory behavior. The commenters cited several scientific studies documenting migratory behavior in non-anadromous *O. mykiss* including: movement within a river system (potadromy); movement from lakes into rivers for spawning (limnodromy); and movement to the estuary/lagoon for growth and maturation (partial anadromy). Although commenters generally acknowledge that only the anadromous form migrates to the open ocean, they contended that this does not represent a truly discrete difference. The commenters described the life history of the *O. mykiss* species as a continuum of migratory behaviors, with anadromous and resident fish representing points on this continuum.

Commenters were also critical of the physiological factors we cited. Commenters argued that resident and

anadromous fish are not discrete physiologically throughout the majority of their life cycle, and smoltification is not entirely unique to anadromy. Commenters noted that some resident individuals may exhibit anadromy later in their life cycle, and other non-anadromous fish exhibit partial anadromy by migrating into estuaries for growth and maturation. Commenters also noted that some resident fish are capable of exhibiting anadromy later in their life cycle, as well as producing anadromous progeny that undergo smoltification.

**Response:** The fact that there is an overlap between co-occurring steelhead and rainbow trout in the physical, ecological, behavioral and physiological factors does not prevent them from satisfying the discreteness criterion under the DPS policy. While the commenters are correct that *O. mykiss* display a continuum of traits in these categories, at the end of that continuum steelhead are markedly separate in their extreme marine migration (leading to, or resulting from, marked separation in the other factors). As we stated in adopting the DPS policy, "the standard adopted [for discreteness] does not require absolute separation of a DPS from other members of its species, because this can rarely be demonstrated in nature for any population of organisms. \* \* \* [T]he standard adopted allows for some limited interchange among population segments considered to be discrete, so that loss of an interstitial population could well have consequences for gene flow and demographic stability of a species as a whole" (61 FR 4722, at 4724; February 7, 1996).

Similarly, the ESU policy does not require absolute reproductive isolation, only sufficient isolation to allow evolutionarily important differences to accumulate (56 FR 58612, at 58618; November 20, 1991). In delineating ESUs, we have recognized that straying leads to some reproductive exchange among ESUs (particularly among populations at the geographic margins between ESUs), that biological entities do not divide along clear lines, and that professional judgment is required in drawing a line at the geographic edge of an ESU. Even among well-recognized taxonomic groupings, such as subspecies, there may be overlapping characteristics, and some reproductive exchange.

In developing the DPS policy we answered concerns that discreteness was an inappropriate criterion for delineating DPSs: "With regard to the discreteness standard, the Services believe that logic demands a distinct population recognized under the Act be

circumscribed in some way that distinguishes it from other representatives of its species. The standard established for discreteness is simply an attempt to allow an entity given DPS status under the Act to be adequately defined and described" (61 FR 4721, at 4724; February 7, 1996). In the case of steelhead, there is a group of organisms that can be clearly distinguished by a variety of characteristics, particularly its marine migration.

With respect to the comment that resident and anadromous *O. mykiss* are genetically indistinguishable, we explained in adopting the DPS policy why we did not adopt genetic distinctness as the test of discreteness: "The Services understand the Act to support interrelated goals of conserving genetic resources and maintaining natural systems and biodiversity over a representative portion of their historic occurrence. The draft policy was intended to recognize both these intentions, but without focusing on either to the exclusion of the other. Thus, evidence of genetic distinctness or of the presence of genetically determined traits may be important in recognizing some DPS's, but the draft policy was not intended to always specifically require this kind of evidence in order for a DPS to be recognized" (61 FR 4721, at 4723; February 7, 1996).

**Comment 6:** Several commenters noted that in the June 2004 proposed listing determinations, resident populations included in *O. mykiss* ESUs were determined to have minor contributions to the viability of the ESUs. (In the proposed listing determinations we concluded that, despite the reduced risk to abundance for certain *O. mykiss* ESUs due to speculatively abundant rainbow trout populations, the collective contribution of the resident life-history form to the viability of an ESU as a whole is unknown and may not substantially reduce an ESU's risk of extinction (NMFS, 2004a; 69 FR 33102, June 14, 2004)). The commenters questioned why resident *O. mykiss* populations should be included in an ESU given that they have little, if any, contribution to the viability of the ESU.

**Response:** Although we have concluded that resident *O. mykiss* should not be included as part of the delineated steelhead DPSs (see response to Comment 4), we disagree with the commenters' basic argument that DPS delineations should depend upon the extent to which a potential component population contributes to the viability of the DPS. A population's contribution to

DPS viability meets neither the reproductive isolation test of the ESU policy, nor the marked separation test of the DPS policy. Using such a test would lead to illogical results given the metapopulation structure of salmon and steelhead, where some components of an ESU or a DPS will (on average) contribute more to its viability, while other components will contribute less. The persistence of components with comparatively weaker contributions to viability may even depend upon their connectivity with other more productive components of the delineated species. These weaker components may nevertheless contribute in other important ways such as by increasing spatial distribution and reducing risks due to catastrophic events, or by exhibiting important traits to diversity of the species and conserving its ability to adapt to future environmental conditions.

**Comment 7:** One commenter asserted that we cannot apply the ESU policy in determining that resident and anadromous populations of *O. mykiss* are part of the same ESU, because NMFS does not have the legal jurisdiction under the ESA to list resident *O. mykiss* populations. The commenter noted that pursuant to the 1974 Memorandum of Understanding (MOU) regarding ESA jurisdictional responsibilities between FWS and NMFS, FWS has exercised ESA jurisdiction over resident *O. mykiss*, while NMFS has exercised jurisdiction over the anadromous life form.

**Response:** The commenter correctly highlights the issue of shared NMFS-FWS jurisdiction for *O. mykiss* ESUs including both resident and anadromous populations. In its 1997 letter responding to NMFS' proposal to include rainbow trout in *O. mykiss* ESUs, FWS objected to the NMFS' proposal and concluded rainbow trout and steelhead should not be considered part of the same DPS. In its June 7, 2005, letter recommending that the final listing determinations for the 10 *O. mykiss* ESUs under review be extended, FWS requested that we ensure that our delineation of *O. mykiss* ESUs complies with the DPS Policy. We agree, in this case, that it is appropriate that we depart from our past practice of applying the ESU Policy to *O. mykiss* stocks, and instead apply the joint DPS Policy in determining "species" where we share jurisdiction with FWS. This is consistent with our application of the DPS policy to delineate species of Atlantic salmon (*Salmo salar*) (65 FR 69459; November 17, 2000).

**Comment 8:** Commenters felt that our proposed approach was inconsistent

with previous NMFS and FWS DPS determinations for non-salmonid fish species, which focused on migration rates between populations, evidence of reproductive exchange, and genetic differences (e.g., NMFS-FWS Gulf of Maine DPS for Atlantic salmon, 65 FR 69459, November 17, 2000; NMFS' recent DPS determination for the Cherry Point stock of Pacific Herring, 70 FR 33116, June 7, 2005). The Department of Interior (DOI) similarly expressed concern that the proposed approach may be inconsistent with its previous applications of the DPS policy for fish species under its jurisdiction (e.g., bull trout, *Salvelinus confluentus*, and coastal cutthroat trout *O. clarki clarki*). DOI offered a comparison with its 1999 listing determination for the Coastal-Puget Sound bull trout DPS (50 FR 58910) in which the resident, migratory, anadromous, amphidromous, fluvial, and adfluvial life-history forms, despite exhibiting distinct life-history strategies, were not found to be discrete because they interbreed. DOI noted that NMFS' previous determinations concluded that the two life forms interbreed, and where they co-occur are genetically more similar than they are to the same life form in another basin. DOI and other commenters felt that regardless of any "marked separation" in phenotypic traits, the documented reproductive exchange and genetic similarity between anadromous and resident fish requires that they be included as parts of the same DPS.

**Response:** The reference to our DPS determination for the Cherry Point stock of Pacific herring is inapposite, as we found that stock was discrete, but not significant. None of the commenters suggested that steelhead are insignificant to the *O. mykiss* species. Additionally, we disagree with the commenters that our finding regarding the discreteness criterion was based on evidence of reproductive exchange and genetic similarity rather than marked separation in biological factors. We determined that the Cherry Point herring stock was discrete despite evidence of migration and reproductive exchange with other herring stocks. We determined that the Cherry Point stock is markedly separated from other Pacific herring populations as a consequence of physical, physiological, ecological, or behavioral factors due to: (1) Its locally unique late spawn timing; (2) the locally unusual location of its spawning habitat on an exposed section of coastline; (3) its consistently large size-at-age and continued growth after maturation relative to other local herring stocks; and (4) its differential accumulation of

toxic compounds relative to other local herring stocks, indicative of different rearing or migratory conditions for Cherry Point herring (70 FR 33116; June 7, 2005).

With respect to the Atlantic salmon, bull trout, and coastal cutthroat trout determinations, we acknowledge that their expression of a range of life histories may raise some of the same issues we confronted in delineating an anadromous-only DPS of *O. mykiss*. We conclude, however, that there are important differences between *O. mykiss* and these species that warrant different treatment. In addition to expressing anadromy (the life-history pattern in which fish spend a large portion of their life cycle in the ocean and return to freshwater to breed), bull trout and coastal cutthroat trout express amphidromy (migration between fresh and salt water that is for feeding and overwintering, as well as breeding). While the anadromous and resident forms of *O. mykiss* differ clearly in ocean-migratory behavior and associated biological factors (see response to Comment 4), ocean-going migratory behavior and associated physical, physiological, and ecological factors are comparatively more variable among the life-history forms and life stages of bull trout and coastal cutthroat trout given their expression of amphidromy.

**Comment 9:** One commenter questioned whether the alternative approach of delineating and listing steelhead-only DPSs was permissible, given that the *Asea* ruling held that the ESA does not allow listing a subset of a DPS. The commenter observed that in the past we had equated an ESU with the statutory "distinct population segment," and we included resident and anadromous *O. mykiss* within the same ESU. The commenter argued that our past practice of applying the ESU policy had established what constitutes a DPS of *O. mykiss*, and that our proposal to not include resident populations in the listings for steelhead-only DPSs would violate the ESA.

**Response:** The commenter is correct that in our past listing determinations we made the policy choice to equate an ESU with the statutory term "distinct population segment." The commenter is not correct, however, in asserting that an ESU (as that concept may be understood by conservation biologists) must necessarily be equated with the statutory term "distinct population segment." We conclude that in the case of *O. mykiss*, an ESU may contain more than one DPS, because the different life history components display marked separation sufficient to justify

delineating them separately for protection under the ESA.

While both the ESU and DPS policies represent permissible interpretations of the statutory term, we have decided that the best approach for *O. mykiss* is to apply the joint DPS policy (see the response to Comment 2). We have concluded that the proposed steelhead-only DPSs meet the criteria defined under our joint DPS policy (as outlined in the response to Comment 4) and are consistent with the ESA.

**Comment 10:** Two commenters were critical of our consideration of hatchery stocks in delineating steelhead DPSs. The commenters questioned whether our review of hatchery programs under the ESU policy (NMFS, 2003, 2004b, 2004c) directly informs considerations of "discreteness" and "significance" under the DPS policy. The commenters felt that we failed to explain how including hatchery stocks as part of the delineated species comports with our proposed application of the DPS policy. The commenters felt that under the proposed approach of determining discreteness based on marked separation in phenotypic traits, it seems reasonable that hatchery stocks would be considered discrete regardless of the life history and genetic similarities documented in our hatchery reviews.

**Response:** We disagree with the suggestion that application of the DPS rather than the ESU policy should lead to the universal conclusion that hatchery fish are not part of the same DPS as naturally spawning fish. We recognize that hatchery stocks, under some circumstances, may exhibit differences in physical, behavioral, and ecological traits; however, conservation hatchery stocks under certain circumstances may exhibit few appreciable differences from the local natural population(s). We think it is inappropriate to make universal conclusions about all hatchery stocks, but think their "discreteness" relative to local natural populations needs to be evaluated on a case-by-case basis.

In the Final Species Determinations section below, we discuss more fully how our June 2004 proposed ESU delineations inform our DPS delineations, in terms of geographic boundaries and in terms of which hatchery populations are part of the DPS. We acknowledge that our review of hatchery programs (NMFS, 2003, 2004b, 2004c) was conducted in the context of the ESU policy; however, we disagree that our findings and the information we evaluated do not inform our considerations of discreteness under the DPS policy. In evaluating the "reproductive isolation" of individual



hatchery stocks in the context of the ESU policy, we lacked program-specific genetic data. As reasonable indicators of reproductive isolation and genetic similarity we relied on information including hatchery broodstock origin, hatchery management practices (e.g., the timing and location of release), and hatchery stock life-history characteristics (e.g., spawn timing, the size and age at maturity) relative to the local natural populations. We conclude that this information directly informs evaluations of marked separation as a consequence of physical, physiological, ecological, or behavioral factors.

**Comment 11:** Several commenters were critical of the proposed DPS delineations, asserting that they fail to provide a clearly distinguishable species delineation for the purposes of effectively and efficiently enforcing the ESA. The commenters were concerned that steelhead-only DPSs would generate confusion and have undesirable regulatory implications. Commenters noted that it is difficult if not impossible to distinguish between the two life forms throughout much of their life cycle when they co-occur. The commenters cited our June 2004 proposed rule in which we state that "no suite of morphological or genetic characteristics has been found that consistently distinguishes between the two life-history forms" (69 FR 33102, at 33113; June 14, 2004). Given the difficulty in distinguishing the two forms, commenters felt that we would either treat all juvenile resident *O. mykiss* as if they are listed, or we would deny needed protections for listed steelhead during the critical early life-history stages when they are indistinguishable from resident fish. Commenters felt that it will be impossible for us to quantify take of listed steelhead versus non-listed rainbow trout, and questioned how we could analyze the impact of actions on listed steelhead without considering the potential production of steelhead progeny by resident fish. Some commenters felt that the lack of a clearly enforceable standard further argues that resident and anadromous *O. mykiss* are not "markedly separated."

**Response:** As we acknowledged in our steelhead listings prior to the *Alesea* ruling, juvenile steelhead can be difficult to distinguish from resident rainbow trout. This does not dictate, however, that they should be included in the same DPS. The ESA authorizes prohibiting the take of an unlisted species if its appearance closely resembles that of a listed species (Section 4(e)). This is the tool that the ESA provides to deal with such

situations where an unlisted species is difficult to distinguish from a listed one. In lieu of "similarity of appearance" protective regulations concerning resident trout that co-occur with listed steelhead stocks, the commenter is correct that we have presumed that all juvenile *O. mykiss* in streams where listed steelhead occur are listed juvenile steelhead. In a decade of implementing steelhead-only listings, we have confronted this issue successfully, working closely with state managers of rainbow trout fisheries to ensure their management of rainbow trout does not jeopardize steelhead. Continuing a listing of steelhead-only DPSs should not change that successful regulatory landscape.

*Comments Regarding a Specific ESU or DPS: Determination of Species*

Northern California and Central California Coast Steelhead

**Comment 12:** Several commenters expressed support for the proposed clarification of the Northern California and Central California Coast steelhead DPS boundaries. We received no comments opposed to the proposed changes.

**Response:** We have included these DPS boundary clarifications in the final species determinations (see Final Species Determinations section, below).

**Comment 13:** Several commenters disagreed with our proposal to include above-barrier resident *O. mykiss* populations from upper Alameda Creek in the Central California Coast *O. mykiss* ESU. Other commenters felt that resident *O. mykiss* populations in the Livermore-Amador Valley also should not be included in the ESU. The commenters were critical of the genetic data and analysis upon which we based our proposal, and felt that genetic similarity alone was insufficient to support the inclusion of these above-dam resident populations in the ESU.

**Response:** Under our final approach of delineating steelhead-only DPSs of *O. mykiss*, the resident populations, including those in Upper Alameda Creek and the Livermore-Amador Valley, are not considered part of the listed DPSs.

California Central Valley Steelhead

**Comment 14:** The California Department of Fish and Game (CDFG) disagreed with the defined spatial structure of the Central Valley *O. mykiss* ESU. It argued that the ESU should be split into two parts: one part north of the Sacramento-San Joaquin River Delta, and a second part that includes the Delta and the San Joaquin Basin. CDFG

based its alternative ESU structure in large part on habitat conditions in the Delta, which it contends serve to reproductively isolate fish from the Sacramento and San Joaquin basins.

Comments submitted during the 6-month extension by the California-Nevada Chapter of the American Fisheries Society (AFS) disagreed with CDFG's recommended species determination. AFS scientists argued that the purported physical barrier to reproduction between the two basins (low dissolved oxygen levels in the lower San Joaquin River) is indicative of the severely degraded habitat conditions in the San Joaquin river system, but represents an ephemeral distributional barrier and not a substantial reproductive barrier. AFS scientists cited a recent genetic study that found no genetic differentiation between populations in the two basins, and concluded that there is no scientific basis for recognizing a distinction between the two river systems.

**Response:** We disagree with CDFG and believe we have correctly defined the spatial extent of the California Central Valley steelhead DPS. Previous genetic analyses indicate that Central Valley steelhead are distinct from coastal populations (see Busby *et al.*, 1996). More recent genetic data (Nielsen *et al.*, 2003) suggest that significant genetic population structure remains for steelhead populations in the Central Valley, but that very little of the genetic variation can be attributed to differences between populations in the Sacramento and San Joaquin river drainages. Ecologically, the Central Valley is substantially different from ecoregions inhabited by coastal *O. mykiss* populations, and ecological conditions in the Central Valley are generally similar between the Sacramento and San Joaquin river basins. Low dissolved oxygen conditions in the Stockton Deep Water Ship Channel and along other reaches of the lower San Joaquin River are problematic, and may serve to limit anadromous fish migration under certain conditions and times. However, we do not believe this ephemeral barrier results in reproductive isolation between populations of *O. mykiss* in the Sacramento and San Joaquin river basins, as evidenced by the available genetic information. In our view, the available genetic and ecological information indicates that steelhead populations in the Sacramento and San Joaquin river basins are not discrete and collectively are significant to the *O. mykiss* species, and therefore constitute a single DPS.



## Snake River Basin Steelhead

*Comment 15:* Several commenters in Idaho disagreed with including the population of rainbow trout above Dworshak Dam on the North Fork Clearwater River (Idaho) in the Snake River Basin *O. mykiss* ESU. The commenters felt that resident *O. mykiss* above Dworshak Dam likely represent a composite of past hatchery stocking programs, hybridization with cutthroat trout, and native *O. mykiss*, and as such there is insufficient information to justify including the entire population of resident *O. mykiss* above Dworshak Dam in the Snake River Basin *O. mykiss* ESU.

*Response:* As noted in the response to Comment 13, resident populations, including above Dworshak Dam, are not part of the listed DPS.

*General Comments on the Consideration of Resident O. mykiss: Assessment of Extinction Risk*

*Comment 16:* Several commenters noted that we did not address the ESU membership of, or consider the potential risks and benefits to the viability of an ESU from, rainbow trout hatchery programs in the proposed listing determinations for *O. mykiss* ESUs. The commenters asserted that the vast majority of rainbow trout hatchery programs propagate domesticated, non-native, and in some instances genetically modified rainbow trout. The commenters felt that in some *O. mykiss* ESUs, such as the Snake River Basin and Upper Columbia River *O. mykiss* ESUs, the negative impacts of hatchery rainbow trout on native *O. mykiss* populations may be profound.

*Response:* We agree with the commenters that resident trout hatchery programs were not inventoried and assessed as part of the proposed listing determinations. In response, we conducted an inventory and assessment of hatchery programs that release rainbow trout in areas where steelhead or co-occurring native rainbow trout might be affected (NMFS, 2004b, 2005a). We have found that few hatchery rainbow trout stocks are released in the spawning and rearing areas for the *O. mykiss* ESUs under review. State and tribal managers have adopted wild salmonid policies that have largely eliminated releases of hatchery-produced rainbow trout in waters important to wild steelhead. Since the ESA listings of steelhead in 1997–2000, the vast majority of hatchery rainbow trout releases to support recreational fisheries are restricted to isolated ponds and lakes. Of the hatchery rainbow trout that are released, none are stocks that

would be considered part of the *O. mykiss* ESUs reviewed. In the few instances where domesticated or genetically modified rainbow trout stocks are released into anadromous waters to support recreational fisheries, they likely do not have substantial adverse impacts on the local *O. mykiss* populations. The released stocks exhibit poor survival, are subject to high harvest rates in the recreational fisheries, and exhibit spawn timing isolating them reproductively from the local natural populations. In some instances, sterile "triploid" rainbow trout are released into anadromous waters, thereby eliminating the possibility for reproductive or genetic exchange with wild fish.

*Comment 17:* Some commenters contended that the District Court in *Alsea* ruled that once an ESU is defined, risk determinations should not discriminate among its components. The commenters described the risk of extinction as the chance that there will be no living representative of the species, and that such a consideration must not be biased toward a specific behavioral or life-history component. A few commenters felt that populations of rainbow trout have persisted in isolation over long periods of time, demonstrating that resident representatives of an *O. mykiss* ESU would persist in the foreseeable future, even if the anadromous life-history form was extirpated.

*Response:* We disagree that the *Alsea* ruling requires a particular approach to assessing extinction risk. The court ruled that if it is determined that a DPS warrants listing, all members of the defined species must be included in the listing. The court did not rule on how the agency should determine whether the species is in danger of extinction or likely to become so in the foreseeable future. Because we are listing steelhead-only DPSs, we do not address the contention that rainbow trout might continue to survive in isolation even if the anadromous life history were extirpated.

*Comment 18:* Several commenters disagreed with our conclusion that the Biological Review Team's (BRT's) extinction risk assessments directly inform risk evaluations for steelhead-only DPSs, and recommended that the BRT re-evaluate the extinction risk of the steelhead DPSs without considering resident *O. mykiss*. The commenters noted that some of the population data evaluated by the BRT included both life forms, particularly for the Southern California, South-Central California Coast, and Central California Coast ESUs. One commenter noted that for

several ESUs the BRT concluded that the presence of speculatively abundant resident populations buffered the risk of extinction somewhat. The commenter felt that the BRT's extinction risk assessments likely underestimate the risk for a steelhead-only DPS, and that some of the proposed threatened determinations for *O. mykiss* ESUs may warrant revision as endangered for the delineated steelhead-only DPSs.

*Response:* As explained more fully in the response to Comment 19, the risk of extinction faced by the steelhead component of *O. mykiss* may be affected by the health and potential contributions of the resident component. We conclude that the BRT's risk assessments directly inform our determinations for steelhead-only DPSs for all ESUs, including the California ESUs cited by the commenters.

*Comment 19:* Several commenters felt that the extinction risk assessments for steelhead-only DPSs must consider the resident form. The commenters felt that the available scientific information demonstrates that the two life-history forms have inseparable demographic risks given that they interbreed and produce progeny of the alternate life form. Commenters asserted that the viability of steelhead populations in the foreseeable future depends on the continued presence of the resident form to buffer against periods of unfavorable ocean conditions and ephemeral blockages to fish passage. Commenters cited a recent report (Independent Science Advisory Board (ISAB), 2005–2) which concluded that "the presence of both resident and anadromous life-history forms is critical for conserving the diversity of steelhead/rainbow trout populations." The commenters concluded that both life-history forms are essential to the individual and collective viability of resident and anadromous populations.

A few commenters contended that the presence of abundant co-occurring rainbow trout confers resilience to steelhead DPSs such that listing may not be warranted. These commenters felt that the ability of the resident life-history form to produce anadromous offspring makes it likely that the anadromous life-history form would be reestablished if extirpated. These commenters cited the recent report of NMFS' Recovery Science Review Panel (RSRP, 2004) which discussed the preliminary results of a study indicating that 17 percent of anadromous adults had resident mothers, as well as other studies indicating that isolated resident populations produce anadromous progeny that successfully smolt and

return to spawn (e.g., Thrower *et al.*, 2004).

The majority of commenters expressed skepticism that resident populations can maintain or re-establish declining or extirpated steelhead populations. These commenters cited recent expert advisory panel reports concluding that although the resident form is an important life-history strategy in some circumstances, the likelihood of long-term persistence is substantially compromised by the loss of anadromy. The commenters concluded that the best available information demonstrates precipitous declines and high levels of extinction risk for West Coast steelhead populations. One commenter cited a study (Nehlsen *et al.*, 1991) identifying 23 steelhead populations that have been extirpated and 75 steelhead populations that are at risk of extirpation. The commenter concluded that these observations contradict assertions that co-occurring rainbow trout can sustain or reestablish anadromous populations and ensure the viability over the long term.

*Response:* Because we have delineated steelhead-only DPSs, we do not directly address contentions about persistence of an entire *O. mykiss* ESU. We acknowledge, however, that in the context of steelhead-only DPS delineations, these comments correctly point out that we must consider whether and to what extent the presence of co-occurring rainbow trout affects the extinction risk of the steelhead DPSs under consideration. We conclude that available information for most of the *O. mykiss* under review does not support a conclusion that the resident populations are abundant. Even for those few ESUs that may have relatively abundant co-occurring rainbow trout, we conclude that while the resident form may mitigate somewhat the risks to the co-occurring steelhead, they do not change our conclusion about the risk of extinction of the DPSs under consideration. We base this conclusion on the work of the BRT and on information provided by peer reviewers and commenters during the comment period. The bulk of this information and analysis specifically addressed the question of the viability of the larger ESU, but the analysis was largely focused on the steelhead-only component. That analysis directly informs our conclusions about the effect of co-occurring rainbow trout on the extinction risk of the steelhead DPSs.

The best available scientific information does not demonstrate that an extirpated anadromous population can be re-established by a resident population. There is only one published

report of anadromy developing from a resident population (Pascual *et al.*, 2001), and it is unclear whether this putative founding population was composed purely of resident genotypes (Behnke, 2002; Pascual *et al.*, 2002; Rossi *et al.*, 2004). Evolutionary theory and empirical evidence suggest that the ability of residents to contribute to anadromy quickly diminishes if the fitness of their anadromous progeny is low (NMFS, 2004a; Thrower *et al.*, 2004a, 2004b; RSRP, 2005). NMFS' RSRP concluded that in cases where an anadromous run is extinct or not self-sustaining, there is no scientific justification for the claim that the long-term viability of an *O. mykiss* ESU or steelhead DPS could be maintained by the resident life-history form alone, or that a viable anadromous population could feasibly be reestablished from a pure resident population (RSRP, 2004). Moreover, for most of the *O. mykiss* under review, the available information does not suggest that the resident form is abundant (NMFS, 2004a).

For a variety of reasons the BRT concluded that the collective contribution of the resident life-history form to the persistence of a larger *O. mykiss* ESU is unknown and may not substantially reduce the overall extinction risks to the ESU in-total (NMFS, 2003b; 2004a). The two *O. mykiss* life-histories represent an adaptive "bet-hedging" strategy for sustaining reproductive potential despite high variability in physical and ecological conditions. Although the resident form can enable the larger *O. mykiss* ESU to endure short-term physical, environmental, and ecological barriers to anadromous migration, there is no evidence that resident fish can perform this function over the long term if the anadromous form is extirpated. It is also unclear to what extent resident populations depend on infusions from anadromous fish for their long-term persistence. The BRT's conclusion is supported by recent reports by the ISAB and NMFS' RSRP which recently concluded that anadromous *O. mykiss* contribute "substantially and irreplaceably to any measure of *O. mykiss* productivity and viability" (RSRP, 2004), and that "the presence of both resident and anadromous life-history forms is critical for conserving the diversity of steelhead/rainbow trout populations and, therefore, the overall viability of ESUs" (ISAB, 2005-2). The RSRP and ISAB underscored that "resident populations by themselves should not be relied upon to maintain long-term viability of an [*O. mykiss*] ESU" (RSRP, 2004), and that the

"likelihood of long-term persistence would be substantially compromised by the loss of anadromy in *O. mykiss* ESUs" (ISAB, 2005-2).

*Comment 20:* Some commenters noted that physical, ecological, environmental, and habitat conditions have been greatly modified by human activities over the past 100 years and contended that due to these changes, areas that historically supported anadromous *O. mykiss* populations currently favor populations of rainbow trout. These commenters felt that observed declines in anadromous *O. mykiss* populations reflect an adaptive shift in the relative proportion of the resident and anadromous life-history forms. The commenters argued that rainbow trout populations have expanded to successfully occupy the niche vacated by anadromous populations, and that *O. mykiss* ESUs do not warrant ESA listing due to this demonstrated adaptive resiliency of the species.

*Response:* As noted in the response to Comment 19, contentions about persistence of an entire *O. mykiss* ESU are not directly relevant given that we have delineated steelhead-only DPSs. However, the presence of co-occurring rainbow trout is relevant to the extent that the resident life-form affects the extinction risk of the steelhead DPSs under consideration. The commenters do not provide data in support of their contention that the reduced abundance of steelhead represents an adaptive shift by the species to altered environmental conditions. An increase in the proportion of resident fish in certain *O. mykiss* populations could be the result of an adaptive life-history shift in response to changing environmental conditions (as suggested by the commenters), or the apparent increase in the prevalence of rainbow trout could simply be the result of declines in the abundance, productivity, and distribution of the anadromous form without a compensatory response in resident populations. The data necessary to evaluate the current status and trends of resident populations are generally lacking, and even more so are the historical data necessary to evaluate trends in the relative abundance and distribution of the two life-history forms. Even if an adaptive shift has occurred, as suggested by the commenters, there is insufficient information to support the contention that *O. mykiss* populations dependent upon the productivity of the resident life-history form are viable over the long term (see response to Comment 19, above). Regardless, many of the factors that have caused declines in

anadromous *O. mykiss* populations (such as the loss/degradation of riparian habitat, degradation of water quality, loss/degradation of in-stream habitat structure and complexity, etc.) likely have had similarly adverse effects on co-occurring resident populations. As noted above in the response to Comment 19, the loss of the anadromous life-history form may increase the extinction risk of an *O. mykiss* ESU due to increased risks from catastrophic events, decreased reproductive potential, diminished spatial distribution, diminished connectivity among discrete habitat patches, and decreased diversity in adaptive traits.

*Comments Regarding a Specific ESU or DPS: Assessment of Extinction Risk*

California Central Valley Steelhead

*Comment 21:* In addition to disagreeing with the defined spatial structure of the Central Valley *O. mykiss* ESU, CDFG opposed our proposal to maintain ESA protections for this ESU. CDFG provided new information on the abundance of resident and hatchery *O. mykiss* in the Central Valley and argued that because of the combined high abundance, high productivity, broad spatial distribution, and genetic diversity of these populations that *O. mykiss* in the Sacramento River Basin do not warrant listing. CDFG conceded that *O. mykiss* in the Sacramento-San Joaquin Delta and San Joaquin River basin may warrant listing as threatened.

In comments submitted during the 6-month extension, a few commenters agreed with CDFG's conclusion that Central Valley steelhead populations are not at risk due to the presence of abundant rainbow trout populations and the stability of environmental conditions. These commenters acknowledged that conditions are much altered from historical conditions by the imposition of dams and changes in flow regime, but concluded that the existing environment selects for the resident life form and supports robust rainbow trout populations.

Other commenters argued that historical habitat loss and degradation remains to be addressed, and water management in the Sacramento-San Joaquin river systems poses significant threats to Central Valley *O. mykiss*, inclusive of both anadromous and resident populations. These commenters criticized CDFG's abundance estimates for: inappropriately extrapolating from areas above impassable dams not considered to be part of the ESU; inaccurately assuming a uniform distribution of fish within these systems

by extrapolating from average density estimates; including an unquantifiable number of hatchery produced smolts in their analyses; and combining abundance estimates for different life-history stages. The commenters felt that CDFG's comments ignored that historical spawning and rearing habitats have been reduced in the Sacramento and San Joaquin river systems by more than 82 percent, and that CDFG appeared to downplay the loss of the San Joaquin basin as an historically important center of distribution.

*Response:* Under our adopted approach of delineating steelhead-only DPSs, CDFG's comments regarding resident *O. mykiss* populations do not affect our risk conclusion for the Central Valley steelhead DPS. Regardless, we disagree with CDFG's assertion that the presence of resident populations in the Sacramento River Basin substantially reduce risks to Central Valley *O. mykiss* populations. We acknowledge that resident forms of *O. mykiss* are widely distributed and possibly abundant in the Central Valley, particularly in the Sacramento River Basin and that the presence of these resident populations likely reduces risks to population abundance. However, the BRT described considerable uncertainty regarding whether and to what extent the resident form contributes to the productivity, spatial structure and diversity of *O. mykiss* metapopulations. As discussed in the response to Comment 19 it is unclear how long an *O. mykiss* population can persist if dependent entirely or mostly upon the productivity of resident fish in a dynamic freshwater environment, even if the resident forms are abundant. The BRT's concerns regarding the status of Central Valley steelhead are not based solely on the apparent continued decline in abundance, but also on evidence indicating the proportion of naturally produced fish is declining, the loss of the vast majority of historical spawning areas above impassable dams, continued impediments to fish passage, and the severe degradation of water quality and quantity conditions. Although altered habitat conditions may favor the resident life-history form in some areas, it is unclear whether such populations are sustainable over the long term (see response to Comment 19, above).

Middle Columbia River Steelhead

*Comment 22:* One commenter submitted an alternative viability analysis for Middle Columbia River steelhead that concludes that extinction risks are low for the wild populations throughout the Middle Columbia River (Cramer *et al.*, 2003). The report

emphasizes the recent increases in abundance in 2001–2002, and asserts that all streams in the DPS share similar patterns of steelhead production, that hatchery-origin steelhead represent a small fraction of natural spawners and do not pose a threat to the DPS's productivity, and that rainbow trout and steelhead interbreed and produce progeny of the alternate life-history form.

*Response:* The information presented in Cramer *et al.* (2003) includes information from Cramer *et al.* (2002) that was provided to NMFS on April 1, 2002, as part of public comments received in response to our initial solicitation of information to support the status review updates (67 FR 6215; February 11, 2002). Cramer *et al.* (2002) focused on the status and trends of steelhead in the Yakima River subbasin, and Cramer *et al.* (2003) represents a subsequent submission that includes information for other major subbasins in the DPS. The information presented in Cramer *et al.* (2002) was evaluated by the BRT and considered in developing the proposed listing determination for the ESU. The supplemental material provided in Cramer *et al.* (2003) does not provide substantive additional data to what was available to and considered by the BRT. The BRT's assessments of extinction risk were based on long-term trends. A recent short-term increase in returns does not alleviate concerns regarding the long-term performance of the DPS, nor would it address concerns regarding the spatial distribution, connectivity, and diversity of populations within the DPS.

The conclusions made in the latter report are not inconsistent with the findings of the BRT. The report emphasizes recent increases in abundance and productivity, but, as noted above, the BRT concluded that there is insufficient certainty that the environmental conditions underlying recent encouraging trends will continue. The report also emphasizes the contributions of abundant and well distributed rainbow trout populations in the ESU in mitigating risks to the anadromous life-history form. As discussed in the response to Comment 19 (above), the BRT concluded that, despite the reduced risk to abundance for certain *O. mykiss* ESUs due to speculatively abundant resident fish, the collective contribution of the resident life-history form to the persistence of an *O. mykiss* ESU is unknown and may not substantially reduce the overall extinction risk to the ESU (NMFS, 2003b, 2004).

### Upper Columbia River Steelhead

*Comment 23:* Several commenters opposed our proposal to change the listing status of the Upper Columbia River steelhead from endangered to threatened. The commenters noted that the majority opinion of the BRT (NMFS, 2003b) was that the ESU is "in danger of extinction." The commenters disagreed with the finding of the Artificial Propagation Evaluation Workshop (NMFS, 2004c) (APEW) that the six hatchery programs in the ESU collectively mitigate the immediacy of extinction risk such that the ESU should be listed as threatened rather than endangered.

*Response:* The slight majority opinion of the BRT was that the ESU is "in danger of extinction," although the substantial minority opinion was that the ESU is "likely to become endangered in the foreseeable future." In evaluating the risks and benefits of the six hatchery programs included in the ESU, we concluded that these programs have: (1) A high certainty of implementation due to long-term agreements reached by Federal, state, tribal and local entities to ensure funding; and (2) a high certainty of effectiveness because they adhere to best professional practices, include extensive monitoring and evaluation efforts, and minimize the potential risks of artificial propagation. These programs have increased the number of natural spawners and thereby have increased the spatial distribution of spawning areas being used, although as yet the programs provide uncertain benefits to the abundance and productivity of the naturally spawned populations in the DPS. The careful design and implementation of these programs have been effective at conserving the diversity of the populations within the DPS. For these reasons we conclude that the hatchery programs in this ESU collectively mitigate the immediacy of extinction risk for Upper Columbia River steelhead in the short term (NMFS, 2004c).

### *Comments on the Consideration of Protective Effects*

#### California Central Valley Steelhead

*Comment 24:* Several commenters opposed our proposal to list steelhead in the California Central Valley as threatened. The commenters agreed with the BRT's majority opinion (NMFS, 2003b) and the conclusion of the APEW (NMFS, 2004c) after considering the benefits of hatchery programs, that the steelhead in the Central Valley are "in danger of extinction." They disagreed that the habitat restoration efforts

associated with the CALFED and the Central Valley Project Improvement Act (CVPIA) provide sufficient certainty of implementation and effectiveness (pursuant to PECE) to conclude that Central Valley steelhead should be listed as threatened rather than endangered.

*Response:* We disagree with the commenters and continue to believe that there are many protective efforts that have been implemented effectively, or are in the process of being implemented, throughout the California Central Valley that reduce risks to the DPS and support a threatened listing determination. These efforts were discussed in the proposed rule (69 FR 33102, at 33144; June 14, 2004) and include a wide range of habitat restoration efforts, changes in hatchery management, and limits on recreational harvest. As discussed further below, habitat improvement and planning efforts in the Central Valley conducted under the auspices of Federal and State programs, primarily CALFED and CVPIA, recently proposed monitoring and research activities regarding steelhead, and recently completed ESA section 7 consultations.

Significant Central-Valley-wide restoration efforts include the CALFED program and CVPIA, both comprehensive water management and restoration programs consisting of elements that potentially contribute toward ecosystem improvement and function as well as to the recovery of Central Valley steelhead. The CALFED program is a collaborative effort among 25 Federal and State agencies to improve water supplies in California and the health of the San Francisco Bay-Sacramento-San Joaquin River Delta watershed. The Ecosystem Restoration program of CALFED has invested more than \$500 million on 415 projects aimed at improving and restoring ecosystems since its inception in 1997 (CALFED Bay-Delta Program, 2005, Annual Report: 2004). These actions include: fish screen and passage construction and planning projects; instream, floodplain, and riparian restoration projects; toxic studies and pollutant reduction efforts; monitoring for listed species; and instream flow augmentation. The CVPIA mandated changes in management of the Central Valley Project, particularly for the protection, restoration, and enhancement of fish and wildlife, and includes programs such as the Anadromous Fish Restoration Program, a water acquisition program, and a fish screen program. Wherever possible, CVPIA and CALFED programs are

integrated to accomplish a single Central-Valley-wide restoration effort.

Approximately 70 percent of water diversions greater than 250 cfs in the Central Valley have now been screened or are planned to be screened. Notable efforts include the planning and/or construction of facilities at: Anderson-Cottonwood Irrigation District, Glenn Colusa Irrigation District, Princeton, Reclamation District 108, City of Sacramento, and Sutter Mutual Water District on the Sacramento River; the Banta Carbona and Patterson Irrigation Districts on the San Joaquin River; and numerous other screening projects in Suisun Marsh, the Sacramento-San Joaquin Delta, and tributaries throughout the Central Valley. Passage improvements and evaluations regarding common salmonid barriers such as Saeltzer Dam on Clear Creek and numerous barriers on Sacramento and San Joaquin tributaries are underway and are contributing to the improvement of habitat conditions for this DPS.

Restoration efforts such as spawning gravel augmentation, fine sediment removal activities, channel rehabilitation, riparian, floodplain, and wetland restoration have also contributed to improved habitat conditions for this DPS by restoring habitat function and quality. Watershed planning and restoration efforts are now underway in many of the Central Valley tributaries leading to the identification and potential elimination of factors limiting habitat restoration and population recovery. Large-scale restoration projects in Clear Creek in the Sacramento River Basin, and the Merced and Tuolumne Rivers in the San Joaquin Basin, are expected to restore ecological functions that benefit steelhead production. Efforts to restore spawning gravel supply and reduce fine sediment input in numerous Central Valley tributaries have likely contributed positively toward recent spawning success. Other elements of the CALFED program may also provide benefits to this DPS, although these benefits are not yet well demonstrated. These activities include water purchases through the Environmental Water Account program, efforts to reduce toxics and pollutants in Central Valley waters, community-based management efforts through the CALFED Watershed program, and improvements to channels and floodplains through the Conveyance and Levee programs.

Monitoring efforts for Central Valley steelhead have been implemented in selected tributaries in the Sacramento and San Joaquin basins in an effort to better understand life-history strategies,



as well as to provide better estimates of steelhead abundance. These activities include redd surveys, snorkeling, angling, rotary screen trapping, and beach seining. Ongoing genetic research is expected to provide additional information about genetic relationships of populations within and between rivers and basins in the Central Valley. This information will help define the spatial and genetic structure of the Central Valley steelhead DPS. The long-term juvenile fish monitoring program by the Interagency Ecological Program in the Sacramento-San Joaquin Estuary, as well as Chinook salmon monitoring programs by Federal and state agencies and private entities in some tributaries, also may provide incidental catch information. While these efforts do not specifically target steelhead and are not found in all Central Valley watersheds, they are filling information gaps regarding Central Valley steelhead that will likely help with recovery assessments and planning. Despite current monitoring and research efforts, additional needs include a more comprehensive monitoring program, better anadromous fish abundance estimating methods, and a better understanding of the use, needs and availability of habitat in the Central Valley for steelhead populations. Finally, we have completed ESA section 7 consultations for construction and water operation projects in the Central Valley that provide substantial benefits to steelhead.

We believe that the protective efforts being implemented for this DPS provide sufficient certainty of implementation and effectiveness to alter the BRT's (NMFS, 2003b) and APEW's (NMFS, 2004c) assessments and support our conclusion that the Central Valley steelhead DPS in-total is not in danger of extinction, but rather is likely to become endangered in the foreseeable future throughout all or a significant portion of its range. Accordingly, we conclude that the Central Valley steelhead DPS continues to warrant listing as a threatened species.

#### Middle Columbia River *O. mykiss* ESU

*Comment 25:* The U.S. Forest Service (FS) and the Bureau of Land Management (BLM) felt that implementation of existing Land and Resource Management Plans (LRMPs) within the range of the Middle Columbia River steelhead will help ensure its long-term viability. Specifically, the agencies assert that the following conservation programs provide sufficient certainty of implementation and effectiveness to mitigate the risk of extinction for

Middle Columbia River steelhead and warrant a new review of its status: (1) Continued implementation of the Northwest Forest Plan aquatic conservation strategy under current FS and BLM LRMPs; (2) continued implementation of the Pacfish aquatic conservation strategy under current FS and BLM LRMPs; (3) continued participation in the Interagency Implementation Team ensuring the effective monitoring, evaluation, and adaptive management of actions under the LRMPs; (4) continued implementation of Best Management Practices project design criteria, and standards and guidelines as specified in existing ESA section 7 biological opinions and concurrence letters, with a strong focus on forestry, grazing, mining, and recreational activities; and (5) continued collaboration with regional partners to identify and implement high-value restoration projects. The FS and BLM criticized the proposed listing determination for the Middle Columbia River *O. mykiss* ESU for not considering implementation of their aquatic conservation strategies under their current LRMPs, for not articulating why these and other conservation efforts were deemed insufficient to ameliorate risks to the ESU, and for not detailing the specific conservation measures necessary to address any insufficiencies.

In an April 15, 2005, letter to NMFS from the State of Oregon Governor's Natural Resource Office, Oregon provided additional information regarding efforts to protect Middle Columbia River steelhead in the Deschutes, John Day, and Walla Walla Rivers. Oregon noted changes in the management of the Wallowa Hatchery intended to reduce the straying of out-of-ESU hatchery fish into the Deschutes and lower John Day rivers. Oregon believes that, if successful, these management actions may substantially reduce the threat posed by straying hatchery fish in these basins and the resulting uncertainties in interpreting trends in abundance and productivity of the local populations. Oregon emphasized its continuing commitment to conservatively managing fisheries in the John Day River in support of conserving self-sustaining natural populations of native summer steelhead. Oregon also felt that commitments to improve flow management in the Walla Walla River Basin as part of the Oregon-Washington Walla Walla River Habitat Conservation Plan for steelhead and bull trout have resulted in improved flow conditions over the past 4 years, improved fish passage, and increases in

available habitat. Oregon also noted habitat and fish passage improvement projects that have been completed and are being developed in the John Day River, Deschutes River, Walla Walla River, and Fifteenmile Creek basins. Oregon asserted that these and other protective efforts merit closer scrutiny under PECE before a final listing determination should be made for steelhead in the Middle Columbia River.

*Response:* In the proposed listing determination we noted encouraging trends in the recent abundance and productivity of the ESU, in part due to favorable freshwater conditions and marine survival. However, several populations remain well below viable levels (including populations in the Yakima River Basin, which was historically a major production center), and there is insufficient certainty that the environmental conditions underlying recent encouraging trends will continue. In proposing to maintain the ESU's threatened status, we listed 11 conservation measures and commitments that if implemented might substantially address key limiting factors, ensure the viability over the long term, and likely bring Middle Columbia River steelhead to the point where the protections of the ESA are no longer necessary. To affect the final listing determination for Middle Columbia River steelhead, we expressed interest in receiving firm commitments with a high certainty of implementation and effectiveness, including: (1) That the Bonneville Power Administration (BPA) will continue its funding of ESU-wide riparian zone and instream habitat restoration efforts, consistent with its Fish and Wildlife Program's portion of the subbasin and recovery plans being developed; (2) that the BLM will adhere to best management practices for grazing, mining, and recreational activities ESU-wide; (3) that the FS will adhere to best management practices for grazing, forestry, and mining activities ESU-wide; (4) that Washington Department of Fish and Wildlife (WDFW) will continue to manage fisheries conservatively in this ESU, and develop and implement a long-term approach that balances natural and hatchery production across the ESU; (5) that Oregon Department of Fish and Wildlife (ODFW) will continue to manage fisheries conservatively in this ESU (particularly in the John Day River subbasin), develop and implement management approaches to reduce the straying of out-of-basin stocks into Deschutes and John Day spawning areas, and develop and implement a long-term approach that balances



natural and hatchery production across the ESU; (6) that the U.S. Bureau of Reclamation (BOR) provide passage and improve flow management below all its facilities in the Yakima River and the Umatilla River subbasins, provide fish passage into significant tributaries, and provide passage over at least two of its storage dams in the Yakima Basin; (7) that the Federal Energy Regulatory Commission (FERC) provide for passage in the Deschutes River subbasin above the Pelton/Round Butte complex, restore downstream water temperature regime to historical levels, and provide for upstream/downstream habitat enhancement and restoration; (8) that the U.S. Army Corps of Engineers (Corps) improve passage, screening and flow management in the Walla Walla River subbasin, and alter the flood operating rule for Mill Creek or alternatively screen the diversion into Bennington Lake; (9) that the Yakima Nation continue conservative hatchery and harvest management and adherence to best land management practices; (10) that the Confederated Tribes of the Umatilla Reservation continue conservative hatchery and harvest management; and (11) that the Confederated Tribes of the Warm Springs Reservation continue best land management practices in the Deschutes River subbasin. To date, the only items addressed are those summarized above by FS and BLM, the State of Oregon, and the 2003 Pelton Round Butte Project settlement agreement to provide for fish passage, research, and habitat enhancement (*see discussion below*).

We applaud FS' and BLM's continued commitments to implement LRMPs, adhere to established best management practices, and participate in monitoring and evaluation efforts. Although the Federal lands covered by the LRMPs are important components in conserving the ESU, these lands comprise a minority (approximately 28 percent) of the occupied stream reaches in the ESU. Populations in the Yakima, Klickitat, and Touchet Rivers remain well below their interim recovery target abundance levels, and in these streams Federal lands represent approximately 21 percent, four percent, and seven percent of the occupied stream reaches, respectively. Additionally, several of the key limiting factors within these basins (in particular fish passage and flow management in the Yakima River Basin) are outside FS' and BLM's authority to address. We are encouraged by FS' and BLM's commitment to continue to pursue high value restoration projects in the range of the DPS. However, with respect to our consideration of

protective efforts, such general commitments lack the necessary certainty of implementation and effectiveness in that they do not identify specific actions and conservation objectives, do not include quantifiable performance measures, cannot guarantee the necessary funding and other resources, and lack sufficient authority to ensure the participation of all necessary parties.

In 2003 a settlement agreement was reached among the applicants and 21 intervenors in the FERC's relicensing of the Pelton Round Butte Project on the Deschutes River (central Oregon). The settlement agreement addresses project operations, natural resource protection, mitigation, and enhancement measures. The agreement will provide fish passage above the three-dam complex to over 150 miles (241 km) of spawning and rearing habitat for steelhead, as well as spring Chinook and sockeye salmon. Other measures include research on the augmentation of spawning gravels in the Lower Deschutes River, management of large woody debris entering the project reservoirs, altered flow management, and \$21.5 million in funding for habitat enhancement projects. Fish passage is scheduled to begin in 2009, to be preceded by (as yet undetermined) habitat enhancement projects. If the provision of fish passage fails, funds that would otherwise support the operation and maintenance of the fish passage facility will be used for habitat restoration projects downstream of the project for the duration of the new license. The settlement agreement is reasonably certain to occur. However, scheduling delays have already occurred and are to be expected given the number of involved parties, the scale of the project, and the complexity of the engineering issues being addressed. We are optimistic that the passage improvements included in the settlement agreement will be effective. However, we cannot be certain that the provision of passage will be effective in reintroducing steelhead populations into currently blocked habitats in the Deschutes River. It is due to this uncertainty that contingencies were built into the settlement agreement for the potential failure of efforts to provide fish passage.

As with the above-mentioned protective efforts, we applaud the conservation measures described by Oregon to reduce stray rates into the Deschutes and John Day Rivers, conservatively manage fisheries in the John Day River, improve flow conditions in the Walla Walla River, and continue its collaboration in developing and implementing

restoration projects. However, as Oregon acknowledges, there is considerable uncertainty as to whether the management actions for the Wallowa Hatchery will be effective in reducing the stray rates of out-of-DPS fish. The commitments to improve flow conditions in the Walla Walla River represent important contributions to addressing limiting factors in the subbasin; however, significant challenges remain. Additional water conservation measures, restoration of severely degraded riparian habitats, continued efforts to screen water diversions and improve fish passage, improvements in agricultural practices to benefit water quality, and hatchery reform efforts are needed to help ensure the conservation of the Walla Walla River steelhead population. As Oregon noted, the implementation of various habitat restoration activities is unclear given uncertainties in funding, technical assistance, necessary authorities, and voluntary participation.

The commitments addressed above represent valuable contributions to the conservation and recovery of the Middle Columbia River steelhead DPS. However, the FS' and BLM's commitments, the Pelton Round Butte Project settlement agreement, and the information provided by Oregon, alone are insufficient to substantially ameliorate risks to the DPS to the point that the protections afforded under the ESA are no longer necessary. As noted in the proposed listing determination and summarized above, we feel that continued and additional conservation efforts are necessary beyond those addressed in the commenters' commitments to substantively address factors limiting the recovery of the Middle Columbia River steelhead DPS.

#### *Comments Regarding Public Notice and Opportunities for Public Comment*

*Comment 26:* Several commenters expressed displeasure concerning the 30-day length of the public comment period regarding the proposed application of the joint DPS policy and delineation of steelhead DPSs. The commenters felt that additional time should have been allowed to comment given that the proposed approach represents a significant departure from NMFS' established application of the ESU policy, and poses potentially significant implications for West Coast steelhead management, conservation, and recovery planning. The commenters felt that NMFS' public notification of the new proposal was inadequate, and suspected that many interested and affected individuals, organizations, businesses, and municipalities are not

aware of the new proposal. Commenters noted that a short 30-day public comment period for such a radical change in approach stands in stark contrast to the more than 200 days of public comment solicited concerning the June 2004 proposals, which generally affirmed the approach NMFS has used for the last 14 years. Two commenters requested that public hearings be held to allow for additional explanation and discussion of the proposed alternative approach.

**Response:** Commenters were provided extensive opportunity for comment from the initial publication of the proposed rule in June 2004 until the close of the final comment period on December 5, 2005. Following an initial time period of 90 days, we twice extended the comment period, for an additional 36 and 22 days (69 FR 53031, August 31, 2004; 69 FR 61348, October 18, 2004). During this extensive comment period, we received numerous comments urging us to find resident and anadromous *O. mykiss* to be separate ESUs. The comment period was then reopened for another 30 days on November 4, 2005, to receive comments on our proposed alternative approach to delineating the *O. mykiss* populations (70 FR 67130). We received 24 comments during this 30-day comment period, specific to the proposal to use the DPS policy. Prior to the reopening of the comment period on November 4, 2005, we also received comments on a possible change in approach to apply the DPS policy rather than the ESU policy. We believe that the 24 cogent, insightful comments we received during the 30-day comment period on our proposed use of the DPS policy is evidence that the time allotted for comment on this issue was sufficient. The approach used in this final rule—giving rainbow trout and steelhead separate treatment under the ESA—was fully vetted in the comments on the 2004 proposed rule.

#### Final Species Determinations

We first must determine whether the geographic boundaries established for *O. mykiss* ESUs (see 69 FR 33102; June 14, 2004) under the ESU policy are the appropriate boundaries for steelhead DPSs under the DPS policy. We conclude they are. Under the ESU policy, we delineated geographic boundaries based on considerations of both reproductive isolation and significance. The ESU boundaries were drawn around population groups the BRT found to be reproductively isolated from other conspecific populations and significant to the evolutionary legacy of the species. Reproductive isolation was generally not conclusively demonstrated

with genetic data but rather inferred from information about the ecology, physiology and behavior of the population groups. The distinctions relied on to make geographic delineations of the ESUs in the 2004 proposed rule are equally applicable to finding discrete (markedly separate) groups of steelhead populations. Moreover, each of the ESUs delineated under the ESU policy occupies a unique ecological region. Occupation of a unique ecological region satisfies the DPS criterion for significance. Loss of any of the ESUs from its geographic area would also represent a significant gap in the range of the species.

Within these geographic boundaries, we further conclude that the anadromous life form is markedly separate from the resident life form, as discussed more fully in the responses to Comments. We therefore are delineating 10 steelhead-only DPSs, with geographic boundaries unchanged from those previously delineated for the West Coast *O. mykiss* ESUs (except as noted for an adjustment of the boundary between two of the California DPSs).

We next must determine whether any hatchery stocks are to be included in the steelhead-only DPSs. On June 28, 2005, we finalized a new policy for the consideration of hatchery-origin fish in ESA listing determinations ("Hatchery Listing Policy;" 70 FR 37204). Under the Hatchery Listing Policy hatchery stocks are considered part of an ESU if they exhibit a level of genetic divergence relative to the local natural population(s) that is no more than what occurs within the ESU (70 FR 37204, at 37215; June 28, 2005). We conclude that the considerations that informed the Hatchery Listing Policy for ESUs are equally valid for the steelhead DPSs we are now delineating under the DPS policy. The Hatchery Listing Policy is based in part on the recognition that important components of the evolutionary legacy of West Coast salmon and steelhead can be found in hatchery stocks, and that many hatchery stocks are derived from, and not significantly diverged from, the naturally spawning stocks. We developed a test for including hatchery stocks in the ESU based upon a consideration of "whether a particular hatchery stock reflects an ESU's 'reproductive isolation' and 'evolutionary legacy'" (70 FR 37204, at 37208; June 28, 2005). We believe those tests are equally applicable to determining whether hatchery stocks reflect the discreteness and significance of steelhead DPSs. Consistent with the June 14, 2004, proposed listing determinations (69 FR 33102) and the

recent final listing determinations for 16 West Coast salmon ESUs (70 FR 37160; June 28, 2005), hatchery stocks are included in a steelhead DPS if they are no more than moderately diverged from local, native populations in the watershed(s) in which they are released. The level of divergence for hatchery programs associated with the steelhead DPSs is reviewed in the 2003 Salmon and Steelhead Hatchery Assessment Group Report (NMFS, 2003) and the 2004 Salmonid Hatchery Assessment and Inventory Report (NMFS, 2004b). The DPS membership of hatchery programs included in the steelhead DPS descriptions below and summarized in Table 1 are unchanged from that proposed for the 10 *O. mykiss* ESUs (69 FR 33102; June 14, 2004).

#### Southern California Steelhead DPS

The Southern California Steelhead DPS includes all naturally spawned populations of steelhead in streams from the Santa Maria River, San Luis Obispo County, California (inclusive) to the U.S.-Mexico Border (62 FR 43937, August 18, 1997; 67 FR 21586, May 1, 2002). This DPS does not include any artificially propagated steelhead stocks that reside within the historical geographic range of the DPS.

#### South-Central California Coast Steelhead DPS

The South-Central California Coast steelhead DPS includes all naturally spawned populations of steelhead in streams from the Pajaro River (inclusive) to, but not including the Santa Maria River, California (62 FR 43937; August 18, 1997). This DPS does not include any artificially propagated steelhead stocks that reside within the historical geographic range of the DPS.

#### Central California Coast Steelhead DPS

The Central California Coast steelhead ESU was previously defined to include all naturally spawned populations of steelhead in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin (62 FR 43937; August 18, 1997). Recent information, however, indicates that those portions of the ESU in San Francisco Bay and eastward towards the Central Valley were incorrectly described in the 1997 listing notice and need to be clarified. As part of the November 4, 2005, notice soliciting comment on the delineation and listing of steelhead-only DPSs (70 FR 67130), we proposed clarifying the definition of the Central California Coast steelhead DPS. We did not receive any

comments opposing the inclusion of these streams, nor has any information been made available that would lead us to reconsider our proposal. Accordingly, we are defining the Central California Coast steelhead DPS to include all naturally spawned populations of steelhead in coastal streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chippis Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as a Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley.

Two artificial propagation programs are considered to be part of the DPS (Table 1): the Don Clausen Fish Hatchery, and Kingfisher Flat Hatchery/Scott Creek (Monterey Bay Salmon and Trout Project) steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c).

#### *California Central Valley Steelhead DPS*

The California Central Valley steelhead DPS includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries (63 FR 13347; March 19, 1998). Two artificial propagation programs are considered to be part of the DPS (Table 1): the Coleman NFH, and Feather River Hatchery steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c).

#### *Northern California Steelhead DPS*

The Northern California *O. mykiss* ESU was previously defined to include steelhead in California coastal river basins from Redwood Creek south to the Gualala River (inclusive) (65 FR 36074; June 7, 2000). Recently, however, we have discovered that there is a coastal section between the southern boundary of this DPS (the Gualala River) and the northern boundary of the Central California Coast steelhead DPS (the Russian River) that contains several

small streams that support steelhead. No genetic or other information is currently available for determining which DPS includes these small streams. As part of the November 4, 2005, notice soliciting comment on the delineation and listing of steelhead-only DPSs (70 FR 67130), we proposed to include these small streams in this Northern California steelhead DPS on a conditional basis. We did not receive any comments opposing the inclusion of these streams, nor has any information been made available that would lead us to reconsider our proposal. Accordingly, the Northern California steelhead DPS is defined to include all naturally spawned populations of steelhead in California coastal river basins from Redwood Creek southward to, but not including, the Russian River.

Two artificial propagation programs are considered part of the DPS (Table 1): the Yager Creek Hatchery, and North Fork Gualala River Hatchery (Gualala River Steelhead Project) steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c, 2005a).

#### *Upper Willamette River Steelhead DPS*

The Upper Willamette River steelhead DPS includes all naturally spawned populations of winter-run steelhead in the Willamette River, Oregon, and its tributaries upstream from Willamette Falls to the Calapooia River (inclusive) (64 FR 14517; March 25, 1999). This DPS does not include any artificially propagated steelhead stocks that reside within the historical geographic range of the DPS. Hatchery summer-run steelhead occur in the Willamette Basin but are an out-of-basin stock that is not included as part of the DPS.

#### *Lower Columbia River Steelhead DPS*

The Lower Columbia River steelhead DPS includes all naturally spawned populations of steelhead in streams and tributaries to the Columbia River between the Cowlitz and Wind Rivers, Washington (inclusive), and the Willamette and Hood Rivers, Oregon (inclusive). Excluded are steelhead in the upper Willamette River Basin above Willamette Falls and steelhead from the Little and Big White Salmon Rivers in Washington (62 FR 43937; August 18, 1997). Ten artificial propagation programs are considered to be part of the DPS (Table 1): the Cowlitz Trout Hatchery (in the Cispus, Upper Cowlitz, Lower Cowlitz, and Tilton Rivers), Kalama River Wild (winter- and

summer-run), Clackamas Hatchery, Sandy Hatchery, and Hood River (winter- and summer-run) steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c, 2005a).

#### *Middle Columbia River Steelhead DPS*

The Middle Columbia River steelhead DPS includes all naturally spawned populations of steelhead in streams from above the Wind River, Washington, and the Hood River, Oregon (exclusive), upstream to, and including, the Yakima River, Washington, excluding steelhead from the Snake River Basin (64 FR 14517; March 25, 1999). Seven artificial propagation programs are considered part of the DPS (Table 1): the Touchet River Endemic, Yakima River Kelt Reconditioning Program (in Satus Creek, Toppenish Creek, Naches River, and Upper Yakima River), Umatilla River, and the Deschutes River steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c, 2005a).

#### *Upper Columbia River Steelhead DPS*

The Upper Columbia River steelhead DPS includes all naturally spawned populations of steelhead in streams in the Columbia River Basin upstream from the Yakima River, Washington, to the U.S.-Canada border (62 FR 43937; August 18, 1997). Six artificial propagation programs are considered part of the DPS (Table 1): the Wenatchee River, Wells Hatchery (in the Methow and Okanogan Rivers), Winthrop NFH, Omak Creek, and the Ringold steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b, 2004c, 2005a).

#### *Snake River Basin Steelhead DPS*

The Snake River Basin steelhead DPS includes all naturally spawned populations of steelhead in streams in the Snake River Basin of southeast Washington, northeast Oregon, and Idaho (62 FR 43937; August 18, 1997). Six artificial propagation programs are considered part of the DPS (Table 1): the Tucannon River, Dworshak NFH, Lolo Creek, North Fork Clearwater, East Fork

Salmon River, and the Little Sheep Creek/Imnaha River Hatchery steelhead hatchery programs. We have determined that these artificially propagated stocks are no more divergent relative to the local natural population(s) than what would be expected between closely related natural populations within the DPS (NMFS, 2004b).

TABLE 1.—LIST OF ARTIFICIAL PROPAGATION PROGRAMS INCLUDED IN DISTINCT POPULATION SEGMENTS (DPSS) OF WEST COAST STEELHEAD (ONCORHYNCHUS MYKISS)

Artificial Propagation Program(s) Included in Steelhead Distinct Population Segments (DPSS)	Run timing	Location (State)
<b>Southern California Steelhead DPS</b>		
n/a .....	.....	.....
<b>South-Central California Coast Steelhead DPS</b>		
n/a .....	.....	.....
<b>Central California Coast Steelhead DPS</b>		
Scott Creek/Monterey Bay Salmon and Trout Project, Kingfisher Flat Hatchery.	Winter .....	Big Creek, Scott Creek (California).
Don Clausen Fish Hatchery .....	Winter .....	Russian River (California).
<b>California Central Valley Steelhead DPS</b>		
Coleman National Fish Hatchery (NFH) .....	Winter .....	Battle Creek, Sacramento River (California).
Feather River Hatchery .....	Winter .....	Feather River (California).
<b>Northern California Steelhead DPS</b>		
Yager Creek Hatchery .....	Winter .....	Yager Creek, Van Duzen River (California).
North Fork Gualala River Hatchery/Gualala River Steelhead Project.	Winter .....	North Fork Gualala River (California).
<b>Upper Willamette River Steelhead DPS</b>		
n/a .....	.....	.....
<b>Lower Columbia River Steelhead DPS</b>		
Cowlitz Trout Hatchery .....	Late Winter ..	Cispus River (Washington).
Cowlitz Trout Hatchery .....	Late Winter ..	Upper Cowlitz River (Washington).
Cowlitz Trout Hatchery .....	Late Winter ..	Tilton River (Washington).
Cowlitz Trout Hatchery .....	Late Winter ..	Lower Cowlitz River (Washington).
Kalama River Wild .....	Winter .....	Kalama River (Washington).
Kalama River Wild .....	Summer .....	Kalama River (Washington).
Clackamas Hatchery (ODFW stock #122) .....	Late Winter ..	Clackamas River (Oregon).
Sandy Hatchery (ODFW stock #11) .....	Late Winter ..	Sandy River (Oregon).
Hood River (ODFW stock #50) .....	Winter .....	Hood River (Oregon).
Hood River (ODFW stock #50) .....	Summer .....	Hood River (Oregon).
<b>Middle Columbia River Steelhead DPS</b>		
Touchet River Endemic .....	Summer .....	Touchet River (Washington).
Yakima River Kelt Reconditioning Program .....	Summer .....	Satus Creek (Washington).
Yakima River Kelt Reconditioning Program .....	Summer .....	Toppenish Creek (Washington).
Yakima River Kelt Reconditioning Program .....	Summer .....	Naches River (Washington).
Yakima River Kelt Reconditioning Program .....	Summer .....	Upper Yakima River (Washington).
Umatilla River (ODFW stock #91) .....	Summer .....	Umatilla River (Oregon).
Deschutes River (ODFW stock #66) .....	Summer .....	Deschutes River (Oregon).
<b>Upper Columbia River Steelhead DPS</b>		
Wenatchee River Steelhead .....	Summer .....	Wenatchee River (Washington).
Wells Hatchery Steelhead .....	Summer .....	Methow River (Washington).
Wells Hatchery Steelhead .....	Summer .....	Okanogan River (Washington).
Winthrop NFH Steelhead (Wells Steelhead) .....	Summer .....	Methow River (Washington).
Omak Creek Steelhead .....	Summer .....	Okanogan River (Washington).
Ringold Hatchery (Wells Steelhead) .....	Summer .....	Middle Columbia River (Washington).
<b>Snake River Basin Steelhead DPS</b>		
Tucannon River .....	Summer .....	Tucannon River (Washington).
Dworshak NFH .....	Summer .....	South Fork Clearwater River (Idaho).
Lolo Creek .....	Summer .....	Clearwater River (Idaho).
North Fork Clearwater .....	Summer .....	North Fork Clearwater River (Idaho).



TABLE 1.—LIST OF ARTIFICIAL PROPAGATION PROGRAMS INCLUDED IN DISTINCT POPULATION SEGMENTS (DPSs) OF WEST COAST STEELHEAD (*ONCORHYNCHUS MYKISS*)—Continued

Artificial Propagation Program(s) Included in Steelhead Distinct Population Segments (DPSs)	Run timing	Location (State)
East Fork Salmon River .....	Summer .....	East Fork Salmon River (Idaho).
Little Sheep Creek/Imnaha River Hatchery (ODFW stock # 29)	Summer .....	Imnaha River (Oregon).

### Assessment of Species' Status

NMFS's Pacific Salmonid BRT (an expert panel of scientists from several Federal agencies including NMFS, FWS, and the U.S. Geological Survey) reviewed the viability and extinction risk of naturally spawning populations in the 10 steelhead DPSs that are the subject of this final rule (Good *et al.*, 2005). Although the ESUs reviewed by the BRT included co-occurring populations of resident *O. mykiss*, little or no population data are available for most resident *O. mykiss* populations. The BRT's findings regarding extinction risk are based on the status of the steelhead populations in the ESUs reviewed. Where available, the BRT incorporated information about resident populations into their analyses of extinction risk, and in some instances the BRT noted the presence of speculatively abundant resident populations. However, the BRT concluded that the contribution of the resident life-history form to the viability of an *O. mykiss* ESU in-total is unknown and may not substantially reduce extinction risks to an ESU in-total. Therefore, the BRT's extinction risk findings directly inform evaluations of extinction risk for the steelhead DPSs under consideration.

We assessed effects of hatchery programs on the extinction risk of a DPS in-total on the basis of the factors that the BRT determined are currently limiting the DPS (e.g., abundance, productivity, spatial structure, and diversity) and how artificial propagation efforts within the DPS affect those factors. The APEW (NMFS, 2004c) reviewed the BRT's findings (NMFS, 2003; Good *et al.*, 2005), evaluated the Salmonid Hatchery Inventory and Effects Evaluation Report (NMFS, 2004b), and assessed the overall extinction risk of DPSs with associated hatchery stocks. Below we summarize the status information for the steelhead DPSs under consideration. The reader is referred to the BRT's report (Good *et al.*, 2005), the Salmonid Hatchery Inventory and Effects Evaluation Report (NMFS, 2004b), and the APEW Report (NMFS, 2004c) for more detailed descriptions of the viability of individual natural

populations and hatchery stocks within these DPSs.

In its analysis of the status of the *O. mykiss* ESUs, the BRT voted on whether each was "in danger of extinction," "likely to become endangered in the foreseeable future," or "not warranted." While these categories correspond to the statutory definitions of "endangered" or "threatened," they do not amount to an agency determination that any of the entities under consideration are an endangered species or a threatened species under the ESA. To make the ESA determination, we also considered the extent to which hatchery populations affect the extinction risk assessed by the BRT as well as the effect of any protective efforts being made by any state or foreign nation.

#### Southern California Steelhead DPS

Assessing the extinction risk for Southern California steelhead is made difficult by the general lack of historical or recent data for this DPS, and the uncertainty generated by this paucity of information. The historical steelhead run for four of the major river systems within the range of the DPS is estimated to have been between 32,000 and 46,000 adults. Recent run size for the same four systems, however, has been estimated to be fewer than 500 total adults. Run sizes in river systems within the DPS are believed to range between less than five anadromous adults per year, to less than 100 anadromous adults per year. The available data are insufficient to estimate abundance levels or trends in productivity. Of 65 river drainages where steelhead are known to have occurred historically, between 26 and 52 percent are still occupied (uncertainty in this estimate is the result of the inaccessibility of 17 basins to population surveys). Colonization events of steelhead were documented during 1996–2002 in Topanga and San Mateo Creeks. These colonization events were represented by a few spawning adults or the observation of a single individual. Twenty-two basins are considered vacant, extirpated, or nearly extirpated due to dewatering or the establishment of impassable barriers below all spawning habitats. Except for the colonization of a small population in San Mateo Creek in northern San

Diego County, steelhead appear to have been completely extirpated from nearly all systems in the southern portion of the range of the DPS from Malibu Creek to the Mexican border. Recently, documentation of the presence and spawning of steelhead in two streams south of Malibu Creek (in Topanga and San Mateo Creeks) prompted the extension of the DPS's boundaries to the U.S.-Mexico border in 2002 (67 FR 21586; May 1, 2002).

The BRT found extremely high risks to the abundance, productivity, spatial structure, and diversity of the DPS. Informed by this assessment, the strong majority opinion of the BRT was that the Southern California steelhead DPS is "in danger of extinction." The minority opinion was that the DPS is "likely to become endangered within the foreseeable future." There are no artificially propagated stocks of steelhead that mitigate the BRT's assessment that the DPS is "in danger of extinction."

#### South-Central California Coast Steelhead DPS

There is a paucity of abundance information for the South-Central California Coast steelhead DPS. Data are not available for the two largest river systems within the range of the DPS, the Pajaro and Salinas basins. These systems are much degraded and are expected to have steelhead runs reduced in size from historical levels. Data available for the Carmel River underscore the population's vulnerability to drought conditions, as well as its dependence on the intensive management of the river system. The most recent 5-year mean abundance of fish in the Carmel River is approximately 600 adults. Despite observed and inferred declines in abundance, the current spatial distribution of steelhead populations in the DPS does not appear to be much reduced from what occurred historically. Steelhead are present in approximately 86 to 95 percent of historically occupied streams (the uncertainty in the estimated occupancy is due to three streams that could not be accessed for population surveys). The BRT was concerned, however, that the larger Pajaro and Salinas basins are



spatially and ecologically distinct from other populations in the DPS, such that further degradation of these areas will negatively impact the DPS's spatial structure and diversity. The BRT found high risks to the abundance, productivity, and the diversity of the DPS, and expressed concern particularly for the DPS's connectivity and spatial structure. Informed by this assessment, the strong majority opinion of the BRT was that the South-Central Coast steelhead DPS is "likely to become endangered within the foreseeable future." The minority opinion was that the DPS is "in danger of extinction." There are no artificially propagated stocks of steelhead that mitigate the BRT's assessment that the DPS is "likely to become endangered within the foreseeable future."

#### Central California Coast Steelhead DPS

There are no time series of population abundance data for the naturally spawning component of the Central California Coast steelhead DPS. The naturally spawning population in the largest river system in the DPS, the Russian River, is believed to have declined seven-fold since the mid-1960s. Juvenile density information is available for five "representative" populations, and each exhibits a decline in juvenile density over the last 8 years of available data. Predation by increasing numbers of California sea lions at river mouths and during the ocean phase was noted as a recent development also posing significant risk. Juvenile *O. mykiss* have been observed in approximately 82 percent of historically occupied streams, indicating that the DPS continues to be spatially well distributed. However, impassable dams have cut off substantial portions of spawning habitat in some basins, generating concern about the spatial structure of the naturally spawning component of the DPS. The BRT found moderately high risk to the abundance and productivity of the DPS, and comparatively less risk for the DPS's spatial structure and diversity. Informed by this risk assessment, the majority opinion of the BRT was that the naturally spawned component of the Central California Coast steelhead DPS is "likely to become endangered within the foreseeable future." The minority opinion was that the DPS is "in danger of extinction."

Two artificial propagation programs are considered to be part of the Central California Coast steelhead DPS (Table 1; NMFS, 2004b, 2005a). Our assessment of the effects of these two artificial propagation programs on the viability of

the DPS concluded that they decrease risk to some degree by contributing to increased abundance, but have neutral or uncertain effects on productivity, spatial structure or diversity of the DPS. Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the Central California Coast steelhead DPS in-total is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### California Central Valley Steelhead DPS

Little information is available regarding the viability of the naturally spawning component of the California Central Valley steelhead DPS. Steelhead spawning above the Red Bluff Diversion Dam (RBDD) have a small population size (the most recent 5-year mean is less than 2,000 adults) and exhibit strongly negative trends in abundance and productivity. However, there have not been any escapement estimates made for the area above RBDD since the mid 1990s. The only recent DPS-level estimate of abundance is a crude extrapolation from the incidental catch of out-migrating juvenile steelhead captured in a midwater-trawl sampling program for juvenile Chinook salmon below the confluence of the Sacramento and San Joaquin Rivers. The extrapolated abundance of naturally spawning female steelhead involves broad assumptions about female fecundity (number of eggs produced per female) and egg-to-smolt survival rates. Based on this extrapolation, it is estimated that on average during 1998–2000, approximately 181,000 juvenile steelhead were produced naturally each year in the Central Valley by approximately 3,600 spawning female steelhead. It is estimated that there were 1 to 2 million spawners in the Central Valley prior to 1850, and approximately 40,000 spawners in the 1960s. Although it appears that steelhead remain widely distributed in Sacramento River tributaries, the vast majority of historical spawning areas are currently above impassable dams. The BRT also expressed concern about the effects of significant production of out-of-DPS hatchery steelhead in the American (Nimbus Hatchery) and Mokelumne (Mokelumne River Hatchery) Rivers. The BRT found high risks to the abundance, productivity, and spatial structure of the DPS, and moderately high risk for the DPS's diversity. Informed by this risk assessment, the majority opinion of the BRT was that the naturally spawned component of the California Central Valley steelhead DPS is "in danger of extinction." The

minority opinion was that the naturally spawned component of the DPS is "likely to become endangered within the foreseeable future."

There are two artificial propagation programs considered to be part of the Central Valley steelhead DPS. Our assessment of the effects of these artificial propagation programs on the viability of the DPS concluded that they decrease risk to some degree by contributing to increased abundance of the DPS, but have a neutral or uncertain effect on the productivity, spatial structure and diversity of the DPS (NMFS, 2004b, 2004c, 2005a). Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of hatchery populations does not alter the BRT's conclusion that the California Central Valley steelhead DPS is "in danger of extinction" (NMFS, 2004c).

#### Northern California Steelhead DPS

There is little historical abundance information for the naturally spawning portion of the Northern California steelhead DPS. However, the available data (dam counts on the Eel and Mad Rivers) indicate a substantial decline from the abundance levels of the 1930s. The three available summer steelhead data sets exhibit recent 5-year mean abundance levels from three to 418 adults, and exhibit downward short- and long-term trends. The short- and long-term abundance trends for the one current winter steelhead data series show a slightly positive trend. However, the recent 5-year mean abundance level is extremely low (32 adults). The juvenile density data for six of 10 (putative) independent populations exhibit declining trends. Despite low abundance and downward trends, steelhead appear to be still widely distributed throughout this ESU. The BRT expressed concern about the DPS's diversity due to the low effective population sizes in the DPS, and concern over interactions with the Mad River Hatchery stock that is not considered to be part of the DPS. This hatchery program was terminated in 2004. Thus, potential genetic risks associated with propagation of this non-DPS stock will decline in the future. The BRT found high risk to the DPS's abundance, and moderately high risk for productivity. The DPS's spatial structure and diversity were of comparatively lower concern. Informed by this assessment, the majority opinion of the BRT was that the naturally spawned component of the Northern California steelhead DPS is "likely to

become endangered within the foreseeable future." The minority BRT opinion was split between the "in danger of extinction" and "not in danger of extinction or likely to become endangered within the foreseeable future" categories.

There are two small artificial propagation programs producing steelhead considered to be part of the Northern California steelhead DPS (Table 1; NMFS, 2004b, 2005a). Our assessment of the effects of these two artificial propagation programs on the viability of the DPS concluded that they may decrease risk to some degree by contributing to increased abundance of the DPS, but have a neutral or uncertain effect on the DPS's productivity, spatial structure and diversity (NMFS, 2004b, 2004c, 2005a). Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of the hatchery populations does not alter the BRT's conclusion that the Northern California steelhead DPS is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### Upper Willamette River Steelhead DPS

The BRT was encouraged by significant increases in adult returns (exceeding 10,000 total fish) in 2001 and 2002 for the Upper Willamette River steelhead DPS. The recent 5-year mean abundance, however, remains low for an entire DPS (5,819 adults), and individual populations remain at low abundance. Long-term trends in abundance are negative for all populations in the DPS, reflecting a decade of consistently low returns during the 1990s. Short-term trends, buoyed by recent strong returns, are positive. Approximately one-third of the DPS's historically accessible spawning habitat is now blocked. Notwithstanding the lost spawning habitat, the DPS continues to be spatially well distributed, occupying each of the four major subbasins (the Mollala, North Santiam, South Santiam, and Calapooia Rivers). There is some uncertainty about the historical occurrence of *O. mykiss* in the Oregon Coastal Range drainages. Coastal cutthroat trout is a dominant species in the Willamette Basin, and thus *O. mykiss* is not expected to have been as abundant or widespread in this DPS as it is east of the Cascade Mountains. The BRT considered the cessation of the "early" winter-run hatchery program a positive sign in reducing risks to the DPS's diversity, but remained concerned that releases of non-native summer hatchery steelhead

continue. The BRT found moderate risks to the DPS's abundance, productivity, spatial structure, and diversity. Based on this risk assessment, the majority opinion of the BRT was that the Upper Willamette River steelhead DPS is "likely to become endangered within the foreseeable future." The minority BRT opinion was that the DPS is "not in danger of extinction or likely to become endangered within the foreseeable future." There are no artificially propagated stocks of steelhead that mitigate the BRT's assessment that the DPS is "likely to become endangered in the foreseeable future."

#### Lower Columbia River Steelhead DPS

Some steelhead populations in the Lower Columbia River DPS, particularly summer-run populations, have shown encouraging increases in abundance in recent years. However, population abundance levels remain small (no population has a recent 5-year mean abundance greater than 750 spawners). The BRT could not conclusively identify a single population that is naturally viable. A number of populations have a substantial fraction of hatchery-origin spawners and are hypothesized to be sustained largely by hatchery production. Long-term trends in spawner abundance are negative for seven of nine populations for which there are sufficient data, and short-term trends are negative for five of seven populations. It is estimated that four historical populations have been extirpated or nearly extirpated, and only one-half of 23 historical populations currently exhibit appreciable natural production. Although approximately 35 percent of historical habitat has been lost within the range of this DPS due to the construction of dams or other impassable barriers, the DPS exhibits a broad spatial distribution in a variety of watersheds and habitat types. The BRT was particularly concerned about the impact on DPS diversity of the high proportion of hatchery-origin spawners in the DPS, the disproportionate declines in the summer steelhead life history, and the release of non-native hatchery summer steelhead in the Cowlitz, Toutle, Sandy, Lewis, Elochoman, Kalama, Wind, and Clackamas Rivers. The BRT found moderate risks to the ESU's abundance, productivity, spatial structure, and diversity. Informed by this assessment the majority opinion of the BRT was that the naturally spawned component of the Lower Columbia River steelhead DPS is "likely to become endangered within the foreseeable future." The minority opinion was that the DPS is

"not in danger of extinction or likely to become endangered within the foreseeable future."

There are 10 artificial propagation programs releasing hatchery steelhead that are considered to be part of this DPS (Table 1). Our assessment of the effects of artificial propagation concluded that these hatchery programs collectively do not substantially reduce the extinction risk of the DPS (NMFS, 2004b, 2004c, 2005a). Non-DPS hatchery programs in the Lower Columbia River remain a threat to the DPS's diversity. Collectively, artificial propagation programs may provide a slight beneficial effect to the DPS's abundance, spatial structure, and diversity, but uncertain effects to the DPS's productivity. Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs on the viability of the DPS (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of the hatchery populations does not alter the BRT's conclusion that the Lower Columbia River steelhead DPS is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### Middle Columbia River Steelhead DPS

The abundance of some natural populations in the Middle Columbia River steelhead DPS has increased substantially in recent years. The Deschutes and Upper John Day Rivers have recent 5-year mean abundance levels in excess of their respective interim recovery target abundance levels (NMFS, 2002). Due to an uncertain proportion of out-of-DPS strays in the Deschutes River, the recent increases in this population are difficult to interpret. (These interim recovery targets articulate the geometric mean of natural-origin spawners to be sustained over a period of 8 years or approximately two salmonid generations, as well as a geometric mean natural replacement rate greater than one). The Umatilla River's recent mean abundance is approximately 72 percent of its interim recovery target abundance level. The natural populations in the Yakima River, Klickitat River, Touchet River, Walla Walla River, and Fifteenmile Creek, however, remain well below their interim recovery target abundance levels. Long-term trends for 11 of the 12 production areas within the range of the DPS were negative, although it was observed that these downward trends are driven, at least in part, by a peak in returns in the middle to late 1980s, followed by relatively low escapement levels in the early 1990s. Short-term trends in the 12 production areas were mostly positive from 1990 to 2001. The

continued low number of natural returns to the Yakima River (10 percent of the interim recovery target abundance level, historically a major production center for the DPS) generated concern among the BRT members. However, steelhead remain well distributed in the majority of subbasins within the range of the Middle Columbia River DPS. The presence of substantial numbers of out-of-basin (and largely out-of-DPS) natural spawners in the Deschutes River raised substantial concern regarding the genetic integrity and productivity of the native Deschutes population. The extent to which this straying is an historical natural phenomenon is unknown. The cool Deschutes River temperatures may attract fish migrating in the comparatively warmer Columbia River waters, thus inducing high stray rates. The BRT found moderate risks to the DPS's productivity, spatial structure, and diversity, with the greatest relative risk being attributed to the ESU's abundance. Informed by this assessment, the opinion of the BRT was closely divided between the "likely to become endangered within the foreseeable future" and "not in danger of extinction or likely to become endangered within the foreseeable future" categories.

There are seven hatchery steelhead programs considered to be part of the Middle Columbia River steelhead DPS. Our assessment of the effects of artificial propagation concluded that these hatchery programs collectively do not substantially reduce the extinction risk of the DPS (NMFS, 2004b, 2004c, 2005a). Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs on the viability of the DPS (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of the hatchery populations does not alter the BRT's conclusion that the Middle Columbia River steelhead DPS in-total is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### *Upper Columbia River Steelhead DPS*

Recent years have seen an encouraging increase in the number of naturally produced fish in the Upper Columbia River steelhead DPS. The 1996–2001 average return through the Priest Rapids Dam fish ladder (just below the upper Columbia steelhead production areas) was approximately 12,900 total adults (including both hatchery and natural origin fish), compared to 7,800 adults for 1992–1996. However, the recent 5-year mean abundances for naturally spawned populations in this DPS are 14 to 30 percent of their interim recovery target

abundance levels. Despite increases in total abundance in the last few years, the BRT was frustrated by the general lack of detailed information regarding the productivity of natural populations. The BRT did not find data to suggest that the extremely low replacement rate of naturally spawning fish (0.25–0.30 at the time of the last status review in 1998) has appreciably improved. The predominance of hatchery-origin natural spawners (approximately 70 to 90 percent of adult returns) is a significant source of concern for the DPS's diversity and generates uncertainty in evaluating trends in natural abundance and productivity. Although the natural component of the anadromous run over Priest Rapids Dam has increased from an average of 1,040 (1992–1996) to 2,200 (1997–2001), this pattern is not consistent for other production areas within the ESU. The mean proportion of natural-origin spawners declined by 10 percent from 1992–1996 to 1997–2001. The BRT found high risk to the DPS's productivity, with comparatively lower risk to the DPS's abundance, diversity, and spatial structure. Informed by this risk assessment, the slight majority BRT opinion concerning the naturally spawned component of the Upper Columbia River steelhead DPS was in the "in danger of extinction" category, and the minority opinion was that the DPS is "likely to become endangered within the foreseeable future."

Six artificial propagation programs that produce hatchery steelhead in the Upper Columbia River Basin are considered to be part of the Upper Columbia River steelhead DPS. These programs are intended to contribute to the recovery of the DPS by increasing the abundance of natural spawners, increasing spatial distribution, and improving local adaptation and diversity (particularly with respect to the Wenatchee River steelhead). Research projects to investigate the spawner productivity of hatchery-reared fish are being developed. Some of the hatchery-reared steelhead adults that return to the basin may be in excess of spawning population needs in years of high survival conditions, potentially posing a risk to the naturally spawned populations in the DPS. The artificial propagation programs included in this DPS adhere to strict protocols for the collection, rearing, maintenance, and mating of the captive brood populations. The programs include extensive monitoring and evaluation efforts to continually evaluate the extent and implications of any genetic and behavioral differences that might emerge between the hatchery and

natural stocks. Genetic evidence suggests that these hatchery stocks remain closely related to the naturally-spawned populations and maintain local genetic distinctiveness of populations within the DPS. Habitat conservation plans (HCPs, with the Chelan and Douglas Public Utility Districts) and binding mitigation agreements ensure that these programs will have secure funding and will continue into the future. These hatchery programs have undergone ESA section 7 consultation to ensure that they do not jeopardize the recovery of the DPS, and they have received ESA section 10 permits for production through 2007. Annual reports and other specific information reporting requirements are used to ensure that the terms and conditions as specified by NMFS are followed. These programs, through adherence to best professional practices, have not experienced disease outbreaks or other catastrophic losses.

Our assessment of the effects of artificial propagation on the DPS's extinction risk concluded that hatchery programs collectively mitigate the immediacy of extinction risk for the Upper Columbia River steelhead DPS in the short term, but that the contribution of these programs in the foreseeable future is uncertain (NMFS, 2004b, 2004c, 2005a). The within-DPS hatchery programs substantially increase total DPS returns, particularly in the Methow Basin where hatchery-origin fish comprise on average 92 percent of all returns. The contribution of hatchery programs to the abundance of naturally spawning fish is uncertain. The contribution of DPS hatchery programs to the productivity of the DPS is uncertain. Large numbers of hatchery-origin steelhead in excess of broodstock needs and limited habitat capacity may decrease the DPS's overall productivity. With increasing DPS abundance in recent years, naturally spawning hatchery-origin fish have expanded the spawning areas being used. Since 1996 efforts are being undertaken to establish the Wenatchee Basin programs separately from the Wells steelhead hatchery program. These efforts are expected to increase the DPS's diversity over time. There is concern that the high proportion of Wells Hatchery steelhead spawning naturally in the Methow and Okanogan basins may pose risks to the DPS' diversity by decreasing local adaptation. The Omak Creek program, although small in size, likely will increase population diversity over time. There has been concern that the early spawning components of the Methow and Wenatchee hatchery programs may

represent a risk to the DPS's diversity. The recent transfer of these early-run components to the Ringold Hatchery on the mainstem Columbia River will benefit the diversity of the tributary populations, while establishing a genetic reserve on the mainstem Columbia River. Collectively, artificial propagation programs benefit DPS abundance and spatial structure, but have neutral or uncertain effects on the DPS's productivity and diversity. Benefits of artificial propagation are more substantial in the Wenatchee Basin for abundance, spatial structure, and diversity. Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of the hatchery populations alters the BRT's conclusion, and that the Upper Columbia River steelhead DPS in-total is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### *Snake River Basin Steelhead DPS*

The paucity of information on adult spawning escapement for specific tributary production areas in the Snake River Basin steelhead DPS makes a quantitative assessment of viability difficult. All of the available data series are for Oregon populations; there are no data series available for the Idaho populations, which represent the majority of the DPS. Annual return estimates are limited to counts of the aggregate return over Lower Granite Dam, and spawner estimates for the Tucannon, Grande Ronde, and Imnaha Rivers. The 2001 Snake River steelhead return over Lower Granite Dam was substantially higher relative to the low levels seen in the 1990s; the recent 5-year mean abundance (14,768 natural returns) is approximately 28 percent of the interim recovery target level. The abundance surveyed in sections of the Grande Ronde, Imnaha, and Tucannon Rivers was generally improved in 2001. However, the recent 5-year abundance and productivity trends were mixed. Five of the nine available data series exhibit positive long- and short-term trends in abundance. The majority of long-term population growth rate estimates for the nine available series were below replacement. The majority of short-term population growth rates were marginally above replacement, or well below replacement, depending upon the assumption made regarding the effectiveness of hatchery fish in contributing to natural production. The BRT noted that the DPS remains spatially well distributed in each of the six major geographic areas in the Snake

River Basin. The BRT was concerned that the Snake River Basin steelhead "B-run" (steelhead with a 2-year ocean residence and larger body size that are believed to be produced only in the Clearwater, Middle Fork Salmon, and South Fork Salmon Rivers) was particularly depressed. The BRT was also concerned about the predominance of hatchery produced fish in this DPS, the inferred displacement of naturally produced fish by hatchery-origin fish, and the potential impacts on the DPS's diversity. High straying rates exhibited by some hatchery programs generated concern about the possible homogenization of population structure and diversity within the Snake River Basin DPS. Recent efforts to improve the use of local broodstocks and release hatchery fish away from natural production areas, however, are encouraging. The BRT found moderate risks to the DPS's abundance, productivity, and diversity, and comparatively lower risk to the DPS's spatial structure. Informed by this risk assessment, the majority opinion of the BRT was that the naturally spawned component of the Snake River Basin steelhead DPS is "likely to become endangered within the foreseeable future." The minority BRT opinion was split between the "in danger of extinction" and "not in danger of extinction or likely to become endangered within the foreseeable future" categories.

There are six artificial propagation programs considered to be part of the Snake River Basin steelhead DPS (Table 1). Our assessment of the effects of artificial propagation concluded that these hatchery programs collectively do not substantially reduce the extinction risk of the DPS (NMFS, 2004b, 2004c, 2005a). Informed by the BRT's findings (Good *et al.*, 2005) and our assessment of the effects of artificial propagation programs on the DPS's viability (NMFS, 2004b, 2004c, 2005a), the APEW concluded that the presence of the hatchery populations does not alter the BRT's conclusion that the Snake River Basin steelhead DPS is "likely to become endangered in the foreseeable future" (NMFS, 2004c).

#### **Efforts Being Made To Protect West Coast Steelhead**

Section 4(b)(1)(A) of the ESA requires the Secretary to make listing determinations solely on the basis of the best scientific and commercial data available after taking into account efforts being made to protect a species. Therefore, in making ESA listing determinations, we first assess a DPS's level of extinction risk and identify

factors that have led to its decline. We then assess existing efforts being made to protect the species to determine if those measures ameliorate the risks faced by the DPS.

In the proposed rule addressing 10 *O. mykiss* ESUs, we reviewed protective efforts ranging in scope from regional conservation strategies to local watershed initiatives (see 69 FR 33102; June 14, 2004). We conclude that protective efforts collectively do not provide empirical evidence or sufficient certainty of implementation and effectiveness to substantially ameliorate the level of assessed extinction risk for all but one of the steelhead DPSs under consideration. For the California Central Valley, we concluded that conservation benefits from the CALFED, State Water Project, Central Valley Project, and California Endangered Species Act provide sufficient certainty of implementation and effectiveness to mitigate the immediacy of extinction risk facing the Central Valley steelhead DPS (see the June 14, 2004, proposed rule for a summary of the relevant protective efforts (69 FR 33102, at 33144) benefitting the California Central Valley DPS and a description of the proposed finding that these efforts mitigate the DPS's level of extinction risk (69 FR 33102, at 33163.))

While we acknowledge that many of the ongoing protective efforts for the other DPSs are likely to promote their conservation, many efforts are relatively recent, have yet to indicate their effectiveness, and few address conservation needs at scales sufficient to conserve entire DPSs. We will continue to encourage these and other future protective efforts, and we will continue to collaborate with tribal, Federal, state, and local entities to promote and improve efforts being made to protect the species.

#### **Final Listing Determinations**

##### *Consideration of Factors Relevant to Listing*

Section 4(a)(1) of the ESA and NMFS' implementing regulations (50 CFR part 424) state that we must determine if a species is endangered or threatened because of any one or a combination of the following factors: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or man-made factors affecting its continued existence. We have previously detailed the impacts of



various factors contributing to the decline of West Coast steelhead as part of our prior listing determinations (65 FR 36074, June 7, 2000; 64 FR 14517, March 25, 1999; 63 FR 42588, August 10, 1998; 63 FR 13347, March 19, 1998; 62 FR 43937, August 18, 1997), as well as in supporting technical reports (e.g., Busby *et al.*, 1996; NMFS, 1996). There is no single factor solely responsible for the decline of West Coast steelhead stocks, and our prior listing determinations and technical reports concluded that all of the factors identified in section 4(a)(1) have played a role. Of these factors, the destruction and modification of habitat, overutilization for recreational purposes, and natural and man-made factors have been identified as the primary causes for the decline of West Coast steelhead. The following discussion briefly summarizes findings regarding threats across the range of West Coast steelhead. While these factors have been treated here in general terms, it is important to underscore that impacts from certain factors are more acute for specific DPSs.

#### 1. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

West Coast steelhead have experienced declines in the past several decades as a result of forestry, agricultural, mining, and urbanization activities that have resulted in the loss, degradation, simplification, and fragmentation of habitat. Water storage, withdrawal, conveyance, and diversions for agriculture, flood control, domestic, and hydropower purposes (especially in the Columbia River and Sacramento-San Joaquin River Basins) have greatly reduced or eliminated historically accessible habitat. Modification of natural flow regimes have resulted in increased water temperatures, changes in fish community structures, depleted flow necessary for migration, spawning, rearing, flushing of sediments from spawning gravels, reduced gravel recruitment and the transport of large woody debris. In addition to these indirect effects from dams and other water control structures, they have also resulted in increased direct mortality of adult and juvenile steelhead.

Natural resource use and extraction leading to habitat modification can have significant direct and indirect impacts to steelhead populations. Land use activities associated with logging, road construction, urban development, mining, agriculture, ranching, and recreation have significantly altered steelhead habitat quantity and quality. Associated impacts of these activities

include: alteration of streambank and channel morphology; alteration of ambient stream water temperatures; degradation of water quality; elimination of spawning and rearing habitats; fragmentation of available habitats; elimination of downstream recruitment of spawning gravels and large woody debris; removal of riparian vegetation resulting in increased stream bank erosion; and increased sedimentation input into spawning and rearing areas resulting in the loss of channel complexity, pool habitat, suitable gravel substrate, and large woody debris. Studies indicate that in most western states, about 80 to 90 percent of the historic riparian habitat has been eliminated. Wetland and estuarine habitats have been reduced by approximately one-third in Washington and Oregon, and over 90 percent in California (Dahl, 1990; Jensen *et al.*, 1990; Barbour *et al.*, 1991; Tiner, 1991; Reynolds *et al.*, 1993). The condition of the remaining wetland habitats for West Coast steelhead is largely degraded, with many wetland areas at continued risk of loss or further degradation.

The loss and degradation of habitats and flow conditions has been identified as a threat to each of the 10 steelhead DPSs addressed in this notice. Although many historically harmful practices have been halted, much of the historical damage to habitats limiting West Coast steelhead stocks remains to be addressed, and the necessary restoration activities will likely require decades. Additionally, in some areas certain land-use practices continue to pose risks to the survival of local steelhead populations.

#### 2. Overutilization for Commercial, Recreational, Scientific or Educational Purposes

Steelhead have been, and continue to be, an important recreational fishery throughout their range. There are no commercial fisheries for steelhead in the ocean, and they are only rarely taken there in fisheries targeting other species. The primary fisheries taking steelhead are tribal fisheries and (public) recreational fisheries. More than thirty Native American tribes have guaranteed rights to fish for steelhead under treaties with the U.S. Government. These tribal fisheries serve ceremonial and subsistence and commercial purposes. Recreational fishing for hatchery-origin steelhead is extremely popular along the West Coast. These fisheries are highly selective, and only visibly marked surplus hatchery-origin fish may be harvested.

As much as 50 percent of all fish in a given run can be intercepted in such

fisheries. Mortality rates for naturally spawned fish that are caught and released in these fisheries are presumed to be low, but the actual rates are unknown, as is the level of illegal retention. In the Columbia River, steelhead fishing is regulated under Federal, tribal and state agreement. Under these agreements the total harvest rate for steelhead intended to spawn naturally has been limited to approximately 10 percent, except for Idaho B run steelhead where harvest rates are limited to below 20 percent (NMFS, 2005b). We have previously concluded that harvest is a major limiting factor for three of the 10 DPSs under review (NMFS, 2005c): the Snake River Basin, South-Central California Coast, and Southern California steelhead DPSs.

#### 3. Disease or Predation

Infectious diseases constitute one of many factors that can influence adult and juvenile steelhead survival. Steelhead are exposed to numerous bacterial, protozoan, viral, and parasitic organisms in spawning and rearing areas, hatcheries, migratory routes, and marine environments. Specific diseases, such as bacterial kidney disease (BKD), ceratomyxosis, columnaris, furunculosis, infectious hematopoietic necrosis virus, redmouth and black spot disease, erythrocytic inclusion body syndrome, and whirling disease, among others, are present and are known to affect steelhead (Rucker *et al.*, 1953; Wood, 1979; Leek, 1987; Foott *et al.*, 1994). Very little current or historical information exists to quantify changes in infection levels and mortality rates attributable to these diseases for steelhead. However, studies have shown that naturally spawned fish tend to be less susceptible to pathogens than hatchery-reared fish (Buchanan *et al.*, 1983; Sanders *et al.*, 1992). Native salmon populations have co-evolved with specific communities of these organisms, but the widespread use of artificial propagation has introduced exotic organisms not historically present in a particular watershed. Habitat conditions such as low water flows and high temperatures can exacerbate susceptibility to infectious diseases. Aggressive hatchery reforms implemented in some areas have reduced the magnitude and distribution of hatchery fish releases, and consequently the interactions between hatchery- and natural-origin fish and the potential transmission of infectious diseases. Additionally, regulations controlling hatchery effluent discharges into streams have reduced the potential



of pathogens being released into steelhead habitats.

Introduction of non-native species and modification of habitat have resulted in increased predator populations and salmonid predation in numerous river systems. Marine predation is also of concern in some areas, given the dwindling steelhead run-size in recent years. In general, predation rates on steelhead are considered by most investigators to be an insignificant contribution to the large declines observed in west coast populations. However, predation may significantly influence salmonid abundance in some local populations when other prey are absent and physical habitat conditions lead to the concentration of adults and juveniles. There is insufficient available information to suggest that the DPSs under consideration are in danger of extinction, or likely to become so in the foreseeable future, because of disease or predation.

#### 4. The Inadequacy of Existing Regulatory Mechanisms

We reviewed existing regulatory mechanisms in the proposed rule as part of our evaluation of efforts being made to protect West Coast salmonids (69 FR 33102, at 33143; June 14, 2004). We noted several Federal, state, and local regulatory programs that have been successfully implemented to substantially reduce historical risks to West Coast steelhead DPSs (for example, the elimination of stocking hatchery rainbow trout in anadromous waters, and the conversion of many in-river recreational fisheries to catch-and-release only). The reader is referred to the proposed rule for a regional and state-by-state summary of these regulatory mechanisms. In particular, changes in regulations governing steelhead fisheries have significantly reduced the risks for many of the steelhead DPSs under consideration, although some DPSs continue to be harvested at significant rates. In addition, although there have been efforts to improve habitat conditions across the range of most of the DPSs under consideration, land use regulations across their range do not address continued threats from habitat degradation. Many of the DPSs are in danger of extinction, or threatened with endangerment, as a result of the inadequacy of existing regulatory mechanisms.

#### 5. Other Natural or Manmade Factors Affecting Its Continued Existence

Variability in natural environmental conditions has both masked and

exacerbated the problems associated with degraded and altered riverine and estuarine habitats. Floods and persistent drought conditions have reduced already limited spawning, rearing, and migration habitats. Furthermore, El Nino events and periods of unfavorable ocean-climate conditions can threaten the survival of steelhead populations already reduced to low abundance levels due to the loss and degradation of freshwater and estuarine habitats. However, periods of favorable ocean productivity and high marine survival can offset poor habitat conditions elsewhere and result in dramatic increases in population abundance and productivity (as was observed for some DPSs in recent years).

In an attempt to mitigate for lost habitat and reduced fisheries, extensive hatchery programs have been implemented throughout the range of steelhead on the West Coast. Most hatchery programs are designed to compensate for degraded habitat capacity and productivity, however, recently some hatcheries have been designed to assist in the conservation and recovery of natural populations. While some of the programs intended for mitigation purposes have been successful in providing fishing opportunities, many such programs have posed risks to the genetic diversity and long-term reproductive fitness of local natural steelhead populations. Potential threats to natural steelhead posed by hatchery programs include: excessive mortality of natural steelhead in fisheries targeting hatchery-origin steelhead; competition for prey and habitat; predation by hatchery-origin fish on younger natural fish; genetic introgression by hatchery-origin fish that spawn naturally and interbreed with local natural populations; disease transmission; degraded water quality and quantity, and impediments to fish passage imposed by hatchery facilities. Aggressive hatchery reform in some areas has halted historically harmful artificial propagation practices, and the use of conservation hatcheries may play an important role, under appropriate circumstances, in reestablishing depressed West Coast steelhead stocks. We have previously concluded that harmful hatchery practices still represent a major threat for the Southern California, California Central Valley, South-Central California Coast, Upper Willamette River, and Snake River Basin steelhead DPSs (NMFS, 2005c).

#### Final Conclusions Regarding ESA Listing Status

After reviewing the public comments received, independent expert reviewer

comments, and other data available to us, we find that there is no substantive information that would cause us to reconsider the extinction risk assessments of the BRT (Good *et al.*, 2005) or the APEW Report's (NMFS, 2004c) conclusions regarding the contributions of hatchery programs to the viability of the subject DPSs. We conclude that the Southern California steelhead DPS is in danger of extinction throughout all or a significant portion of its range, and warrants listing as an endangered species. We conclude that the South-Central California Coast, Central California Coast, California Central Valley, Northern California, Lower Columbia River, Upper Willamette River, Middle Columbia River, Upper Columbia River, and Snake River Basin steelhead DPSs are likely to become endangered within the foreseeable future throughout all or a significant portion of their ranges. Accordingly, these nine ESUs warrant listing as threatened species.

#### Prohibitions and Protective Regulations

ESA section 9(a) take prohibitions (16 U.S.C. 1538(a)(1)(B)) apply to all species listed as endangered. In the case of threatened species, section 4(d) of the ESA leaves it to the Secretary's discretion whether and to what extent to extend the statutory 9(a) "take" prohibitions, and directs the agency to issue regulations it considers necessary and advisable for the conservation of the species. The 4(d) protective regulations may prohibit, with respect to threatened species, some or all of the acts which section 9(a) of the ESA prohibits with respect to endangered species. These 9(a) prohibitions and 4(d) regulations apply to all individuals, organizations, and agencies subject to U.S. jurisdiction.

Since 1997 we have promulgated a total of 29 "limits" to the ESA Section 9(a) "take" prohibitions for 19 threatened salmon and steelhead ESUs (62 FR 38479, July 18, 1997; 65 FR 42422, July 10, 2000; 65 FR 42485, July 10, 2000; 67 FR 1116, January 9, 2002). On June 28, 2005, as part of the final listing determinations for 16 West Coast salmon ESUs, we amended and streamlined the previously promulgated 4(d) protective regulations for threatened salmon and steelhead (70 FR 37160). We finalized an amendment to provide the necessary flexibility to ensure that fisheries and artificial propagation programs are managed consistently with the conservation needs of threatened salmon and steelhead. Under this change the section 4(d) protections apply to natural and hatchery fish with an intact adipose fin, but not to listed hatchery fish that have

had their adipose fin removed prior to release into the wild. Additionally, we made several simplifying and clarifying changes to the ESA 4(d) protective regulations including updating an expired limit (section 223.203(b)(2)) providing a temporary exemption for ongoing research and enhancement activities with pending applications through December 2005, and extending the same set of 14 limits to all threatened salmon and steelhead. With respect to steelhead, the amended June 2005 4(d) rule applies to the steelhead being listed as threatened in the following eight DPSs: The South-Central California, Central California Coast, California Central Valley, Northern California, Upper Willamette River, Lower Columbia River, Middle Columbia River, and Snake River Basin steelhead DPSs.

#### *Protective Regulations for the Upper Columbia River Steelhead DPS*

The Upper Columbia River steelhead ESU is currently listed as endangered and subject to the section 9(a) take prohibitions. With the new listing of the Upper Columbia River steelhead DPS as a threatened species, the existing 4(d) protective regulations do not apply to this DPS. As part of the June 14, 2004, proposed threatened determination for the Upper Columbia River *O. mykiss* ESU (69 FR 33102), we also proposed extending to this ESU the amended 4(d) protective regulations that were subsequently finalized in June 2005 (70 FR 37160; June 28, 2005). We will finalize the protective regulations for the threatened Upper Columbia River steelhead DPS in a subsequent **Federal Register** notice.

#### *Identification of Those Activities That Would Constitute a Violation of Section 9 of the ESA*

We and the FWS published in the **Federal Register** on July 1, 1994 (59 FR 34272), a policy that we shall identify, to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the ESA. The intent of this policy is to increase public awareness of the effect of this listing on proposed and ongoing activities within the species' range. At the time of the final rule, we must identify to the extent known specific activities that will not be considered likely to result in violation of section 9, as well as activities that will be considered likely to result in violation. We believe that, based on the best available information, the following actions will not result in a violation of section 9:

1. Possession of steelhead from any DPS that is listed as threatened or endangered that are acquired lawfully by permit issued by us pursuant to section 10 of the ESA, or by the terms of an incidental take statement issued pursuant to section 7 of the ESA; or
2. Federally funded or approved projects that involve activities such as silviculture, grazing, mining, road construction, dam construction and operation, discharge of fill material, stream channelization or diversion for which section 7 consultation has been completed, and when activities are conducted in accordance with any terms and conditions provided by us in an incidental take statement accompanying a biological opinion.

Activities that we believe could potentially "harm" steelhead (see 50 CFR 222.102) in the listed DPSs, and result in a violation of the section 9 take prohibition include, but are not limited to:

1. Land-use activities that adversely affect steelhead habitats for any listed DPS (e.g., logging, grazing, farming, urban development, road construction in riparian areas and areas susceptible to mass wasting and surface erosion);
2. Destruction/alteration of the steelhead habitats for any listed DPS, such as removal of large woody debris and "sinker logs" or riparian shade canopy, dredging, discharge of fill material, draining, ditching, diverting, blocking, or altering stream channels or surface or ground water flow;
3. Discharges or dumping of toxic chemicals or other pollutants (e.g., sewage, oil, gasoline) into waters or riparian areas supporting listed steelhead DPSs;
4. Violation of discharge permits;
5. Application of pesticides affecting water quality or riparian areas for listed steelhead DPSs;
6. Interstate and foreign commerce of steelhead from any of the listed DPSs and import/export of steelhead from any listed DPS without a threatened or endangered species permit;
7. Collecting or handling of steelhead from any of the listed DPSs. Permits to conduct these activities are available for purposes of scientific research or to enhance the conservation or survival of the species; or
8. Introduction of non-native species likely to prey on steelhead from any of the listed DPSs or displace them from their habitats.

This list is not exhaustive. It is intended to provide some examples of the types of activities that might be considered by us as constituting a take of steelhead in any of the listed DPSs under the ESA and its regulations.

Questions regarding whether specific activities will constitute a violation of the section 9 take prohibitions and general inquiries regarding prohibitions and permits, should be directed to us (see **ADDRESSES**).

#### **Effective Date of the Final Listing Determinations**

Given the cultural, scientific, and recreational importance of West Coast steelhead, and the broad geographic range of these DPSs, we recognize that numerous parties may be affected by these final listing determinations. Therefore, to permit an orderly implementation of the consultation requirements associated with these determinations, the final listings will take effect on February 6, 2006.

#### **Critical Habitat**

On September 2, 2005, we issued final critical habitat designations for 19 West Coast salmon and steelhead ESUs, including the Southern California, South-Central California, Central California Coast, California Central Valley, Northern California, Upper Willamette River, Lower Columbia River, Middle Columbia River, Upper Columbia River, and Snake River Basin steelhead ESUs (70 FR 52488 and 52630). At the time of these final critical habitat designations for steelhead we had proposed including co-occurring resident *O. mykiss* as part of the ESUs; however, a Consent Decree governing the schedule for the final designations required that they be completed for the ESUs as they were listed as of August 15, 2005. As noted above in the "Background" section, the existing listings for steelhead ESUs promulgated between 1997–2000 include only the anadromous life-history form (for more detailed ESU-specific information the reader is referred to the summary of, and **Federal Register** citations for, the previous steelhead listing determinations provided in 69 FR 33102, June 14, 2004). Accordingly, the final critical habitat designations are restricted to the species' anadromous range, and are coextensive with the steelhead-only DPS delineations described in this notice. Whereas the final critical habitat designations may have warranted revision for the proposed *O. mykiss* ESUs including both the resident and anadromous life-history forms, the final critical habitat designations do not require revision for the proposed steelhead-only DPSs (NMFS, 2005d).

**Classification**

*National Environmental Policy Act (NEPA)*

ESA listing decisions are exempt from the requirements to prepare an environmental assessment or environmental impact statement under the NEPA. See NOAA Administrative Order 216-6.03(e)(1) and *Pacific Legal Foundation v. Andrus*, 675 F. 2d 825 (6th Cir. 1981). Thus, we have determined that the final listing determinations for the West Coast steelhead DPSs described in this document are exempt from the requirements of the NEPA of 1969.

*Executive Order (E.O.) 12866, Regulatory Flexibility Act, and Paperwork Reduction Act*

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the final listing determinations described in this notice. In addition, this rule is exempt from review under E.O. 12866. This final determination does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

*E.O. 13084—Consultation and Coordination With Indian Tribal Governments*

E.O. 13084 requires that if NMFS issues a regulation that significantly or

uniquely affects the communities of Indian tribal governments and imposes substantial direct compliance costs on those communities, NMFS must consult with those governments or the Federal government must provide the funds necessary to pay the direct compliance costs incurred by the tribal governments. The final listing determinations described in this document do not impose substantial direct compliance costs on the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of E.O. 13084 do not apply to this final listing determination. Nonetheless, we will continue to inform potentially affected tribal governments, solicit their input, and coordinate on future management actions.

*E.O. 13132—Federalism*

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific consultation directives for situations where a regulation will preempt state law, or impose substantial direct compliance costs on state and local governments (unless required by statute). Neither of those circumstances is applicable to this final listing determination. In keeping with the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual state and Federal interest, the proposed rule was provided to the relevant agencies in each state in which the

subject species occurs, and these agencies were invited to comment.

**References**

A complete list of all references cited herein is available upon request (see ADDRESSES), or can be obtained from the Internet at: <http://www.nwr.noaa.gov>.

**List of Subjects in 50 CFR Parts 223 and 224**

Endangered and threatened species.

**Authority:** 16 U.S.C. 1531 *et seq.*

Dated: December 22, 2005.

**James W. Balsiger,**

*Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.*

■ For the reasons set out in the preamble, 50 CFR parts 223 and 224 are amended as follows:

**PART 223—THREATENED MARINE AND ANADROMOUS SPECIES**

■ 1. The authority citation for part 223 continues to read as follows:

**Authority:** 16 U.S.C. 1531-1543; subpart B, § 223.12 also issued under 16 U.S.C. 1361 *et seq.*

■ 2. In § 223.102, revise paragraphs (a)(14) through (a)(21) and add paragraph (a)(22) to read as follows:

**§ 223.102 Enumeration of threatened marine and anadromous species.**

\* \* \* \* \*

(a) \* \* \*

Species <sup>1</sup>		Where listed	Citation(s) for listing determination(s)	Citation for critical habitat designation
Common name	Scientific name			
(14) South-Central California Coast Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., CA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams from the Pajaro River (inclusive) to, but not including the Santa Maria River, California.	62 FR 43937, Aug 18, 1997, Jan. 5, 2006.	70 FR 52488; September 2, 2005.

Species <sup>1</sup>		Where listed	Citation(s) for listing determination(s)	Citation for critical habitat designation
Common name	Scientific name			
(15) Central California Coast Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., CA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in California streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers. Tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as Red Top Creek), excluding the Sacramento-San Joaquin River Basin, as well as two artificial propagation programs: the Don Clausen Fish Hatchery, and Kingfisher Flat Hatchery/Scott Creek (Monterey Bay Salmon and Trout Project) steelhead hatchery programs.	62 FR 43937, Aug. 18, 1997, Jan. 5, 2006.	70 FR 52488; September 2, 2005.
(16) California Central Valley Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., CA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman NFH, and Feather River Hatchery steelhead hatchery programs.	63 FR 13347; Mar. 19, 1998, Jan. 5, 2006.	70 FR 52488; September 2, 2005.
(17) Northern California Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., CA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in California coastal river basins from Redwood Creek southward to, but not including, the Russian River, as well as two artificial propagation programs: the Yager Creek Hatchery, and North Fork Gualala River Hatchery (Gualala River Steelhead Project) steelhead hatchery programs.	65 FR 36074, June 7, 2000, Jan. 5, 2006.	70 FR 52488; September 2, 2005.
(18) Upper Willamette River Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., OR, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in the Willamette River, Oregon, and its tributaries upstream from Willamette Falls to the Calapooia River (inclusive).	62 FR 43937, Aug. 18, 1997, Jan. 5, 2006.	70 FR 52630; September 2, 2005.
(19) Lower Columbia River Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., OR, WA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams and tributaries to the Columbia River between the Cowlitz and Wind Rivers, Washington (inclusive), and the Willamette and Hood Rivers, Oregon (inclusive), as well as ten artificial propagation programs: the Cowlitz Trout Hatchery (in the Cispus, Upper Cowlitz, Lower Cowlitz, and Tilton Rivers), Kalama River Wild (winter- and summer-run), Clackamas Hatchery, Sandy Hatchery, and Hood River (winter- and summer-run) steelhead hatchery programs. Excluded are <i>O. mykiss</i> populations in the upper Willamette River Basin above Willamette Falls, Oregon, and from the Little and Big White Salmon Rivers, Washington.	63 FR 13347, Mar. 19, 1998, Jan. 5, 2006.	70 FR 52630; September 2, 2005.

Species <sup>1</sup>		Where listed	Citation(s) for listing determination(s)	Citation for critical habitat designation
Common name	Scientific name			
(20) Middle Columbia River Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., OR, WA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams from above the Wind River, Washington, and the Hood River, Oregon (exclusive), upstream to, and including, the Yakima River, Washington, excluding <i>O. mykiss</i> from the Snake River Basin, as well seven artificial propagation programs: the Touchet River Endemic, Yakima River Kelt Reconditioning Program (in Satus Creek, Toppenish Creek, Naches River, and Upper Yakima River), Umatilla River, and the Deschutes River steelhead hatchery programs.	57 FR 14517, Mar. 25, 1999, Jan. 5, 2006.	70 FR 52630; September 2, 2005.
(21) Snake River Basin Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., OR, WA, ID, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams in the Snake River Basin of southeast Washington, northeast Oregon, and Idaho, as well six artificial propagation programs: the Tucannon River, Dworshak NFH, Lolo Creek, North Fork Clearwater, East Fork Salmon River, and the Little Sheep Creek/Imnaha River Hatchery steelhead hatchery programs.	62 FR 43937, Aug. 18, 1997, Jan. 5, 2006.	70 FR 52630; September 2, 2005.
(22) Upper Columbia River Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., WA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams in the Columbia River Basin upstream from the Yakima River, Washington, to the U.S.-Canada border, as well six artificial propagation programs: the Wenatchee River, Wells Hatchery (in the Methow and Okanogan Rivers), Winthrop NFH, Omak Creek, and the Ringold steelhead hatchery programs.	62 FR 43937, Aug. 18, 1997, Jan. 5, 2006.	70 FR 52630; September 2, 2005.

<sup>1</sup> Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

\* \* \* \* \*

**PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES**

■ 3. The authority citation for part 224 continues to read as follows:

Authority: 16 U.S.C. 1531–1543 and 16 U.S.C. 1361 *et seq.*

- 4. Amend the table in § 224.101(a) by:
  - a. Removing the row with the entry for Upper Columbia River steelhead; and
  - b. Revising the entry for Southern California Steelhead to read as follows:

**§ 224.101 Enumeration of endangered marine and anadromous species.**

\* \* \* \* \*  
(a) \* \* \*

Species <sup>1</sup>		Where listed	Citation(s) for listing determination(s)	Citation for critical habitat designation
Common name	Scientific name			
Southern California Steelhead.	<i>Oncorhynchus mykiss</i>	U.S.A., CA, Distinct Population Segment including all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable barriers in streams from the Santa Maria River, San Luis Obispo County, California, (inclusive) to the U.S.-Mexico Border.	62 FR 43937; Aug. 18, 1997, Jan. 5, 2006.	70 FR 52488; September 2, 2005.

<sup>1</sup> Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).



\* \* \* \* \*

[FR Doc. 06-47 Filed 1-4-06; 8:45 am]

BILLING CODE 3510-22-P



# Federal Register

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Thursday,  
January 5, 2006

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## Part V

**Department of Defense  
General Services  
Administration**

**National Aeronautics and  
Space Administration**

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48 CFR Chapter 1, Parts 22, 25, and 52  
Federal Acquisitions: Federal Acquisition  
Circular 2005-08; Trade Agreements—  
Thresholds; and Small Entity Compliance  
Guide; Interim Rules

**DEPARTMENT OF DEFENSE**

**GENERAL SERVICES ADMINISTRATION**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**48 CFR Chapter 1**

**Federal Acquisition Circular 2005-08; Introduction**

**AGENCIES:** Department of Defense (DoD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

**ACTION:** Summary presentation of interim rule.

**SUMMARY:** This document summarizes the Federal Acquisition Regulation (FAR) rule agreed to by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council in this Federal Acquisition Circular (FAC) 2005-08. A companion document, the Small Entity Compliance Guide (SECG), follows this FAC. The FAC, including the SECG, is available via the Internet at <http://www.acqnet.gov/far>.

**DATES:** For effective date and comment date, see separate document which follows.

**FOR FURTHER INFORMATION CONTACT:** For clarification of content, contact the analyst whose name appears in the table below in relation to the FAR case. Please cite FAC 2005-08, FAR case 2005-030. Interested parties may also visit our Web site at <http://www.acqnet.gov/far>. For information pertaining to status or publication schedules, contact the FAR Secretariat at (202) 501-4755.

Item	Subject	FAR case	FAR Analyst
I .....	Trade Agreements—Thresholds (Interim) .....	2005-030	Marshall.

**SUPPLEMENTARY INFORMATION:** A summary for the FAR rule follows. For the actual revisions and/or amendments to this FAR case, refer to the specific item number and subject set forth in the document following this item summary.

FAC 2005-08 amends the FAR as specified below:

**Item I—Trade Agreements—Thresholds (Interim)(FAR Case 2005-030)**

This interim rule changes the thresholds for application of the World Trade Organization Government Procurement Agreement and the other Free Trade Agreements with Canada, Mexico, Chile, Singapore, and Australia. These threshold increases occur every two years in order to keep pace with inflation. The United States Trade Representative published the thresholds in the December 12, 2005, **Federal Register** (70 FR 73510 to 73511).

Dated: December 28, 2005.

**Gerald Zaffos,**

*Director, Contract Policy Division.*

**Federal Acquisition Circular**

Federal Acquisition Circular (FAC) 2005-08 is issued under the authority of the Secretary of Defense, the Administrator of General Services, and the Administrator for the National Aeronautics and Space Administration.

Unless otherwise specified, all Federal Acquisition Regulation (FAR) and other directive material contained in FAC 2005-08 is effective January 5, 2006.

Dated: December 23, 2005.

**Domenic C. Cipicchio,**

*Acting Director, Defense Procurement and Acquisition Policy.*

Dated: December 23, 2005.

**Roger Waldron,**

*Acting Senior Procurement Executive, Office of the Chief Acquisition Officer, General Services Administration.*

Dated: December 28, 2005.

**Anne Guenther,**

*Acting Assistant Administrator for Procurement, National Aeronautics and Space Administration.*

[FR Doc. 06-53 Filed 1-4-06; 8:45 am]

**BILLING CODE 6820-EP-S**

**DEPARTMENT OF DEFENSE**

**GENERAL SERVICES ADMINISTRATION**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**48 CFR Parts 22, 25, and 52**

[FAC 2005-08; FAR Case 2005-030]

**RIN 9000-AK40**

**Federal Acquisition Regulation; Trade Agreements—Thresholds**

**AGENCIES:** Department of Defense (DoD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

**ACTION:** Interim rule with request for comments.

**SUMMARY:** The Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) have agreed on an interim rule amending the Federal Acquisition

Regulation (FAR) to implement the increased thresholds for the World Trade Organization Government Procurement Agreement and Free Trade Agreements.

**DATES:** *Effective Date:* January 5, 2006.

*Comment Date:* Interested parties should submit written comments to the FAR Secretariat on or before March 6, 2006 to be considered in the formulation of a final rule.

**ADDRESSES:** Submit comments identified by FAC 2005-08, FAR case 2005-030, by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Agency Web Site: <http://www.acqnet.gov/far/ProposedRules/proposed.htm>. Click on the FAR case number to submit comments.
- E-mail: [farcase.2005-030@gsa.gov](mailto:farcase.2005-030@gsa.gov). Include FAC 2005-08, FAR case 2005-030 in the subject line of the message.
- Fax: 202-501-4067.
- Mail: General Services Administration, Regulatory Secretariat (VIR), 1800 F Street, NW, Room 4035, ATTN: Laurieann Duarte, Washington, DC 20405.

*Instructions:* Please submit comments only and cite FAC 2005-08, FAR case 2005-030, in all correspondence related to this case. All comments received will be posted without change to <http://www.acqnet.gov/far/ProposedRules/proposed.htm>, including any personal and/or business confidential information provided.

**FOR FURTHER INFORMATION CONTACT:** For clarification of content, contact Ms. Kimberly Marshall, Procurement Analyst, at (202) 219-0986. Please cite FAC 2005-08, FAR case 2005-030. For

information pertaining to status or publication schedules, contact the FAR Secretariat at (202) 501-4755.

**SUPPLEMENTARY INFORMATION:**

**A. Background**

Every two years, the trade agreements thresholds are escalated according to a pre-determined formula set forth in the agreements. The United States Trade

Representative published the new thresholds in the December 12, 2005, **Federal Register** (70 FR 73510 to 73511) and has specified the following new thresholds:

Trade Agreement	Supply Contract (equal to or exceeding)	Service Contract (equal to or exceeding)	Construction Contract (equal to or exceeding)
WTO GPA .....	\$193,000	\$193,000	\$7,407,000
FTAs			
NAFTA			
-Canada .....	25,000	64,786	8,422,165
-Mexico .....	64,786	64,786	8,422,165
Chile FTA .....	64,786	64,786	7,407,000
Singapore FTA .....	64,786	64,786	7,407,000
Australia FTA .....	64,786	64,786	7,407,000

This is not a significant regulatory action and, therefore, was not subject to review under Section 6(b) of Executive Order 12866, Regulatory Planning and Review, dated September 30, 1993. This rule is not a major rule under 5 U.S.C. 804.

**B. Regulatory Flexibility Act**

This interim rule is not expected to have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.* The threshold changes are in line with inflation and only maintain the status quo. Therefore, an Initial Regulatory Flexibility Analysis has not been performed. We invite comments from small business concerns and other interested parties on this issue. The Councils will also consider comments from small entities concerning the affected FAR Parts 22, 25, and 52 in accordance with 5 U.S.C. 610. Interested parties must submit such comments separately and should cite 5 U.S.C 601, *et seq.* (FAC 2005-08, FAR case 2005-030), in correspondence.

**C. Paperwork Reduction Act**

The Paperwork Reduction Act does apply; however, the changes to the FAR do not impose additional information collection requirements to the paperwork burden previously approved

under OMB Control Numbers 9000-0025, 9000-0130, 9000-0141, and 9000-0155.

**D. Determination to Issue an Interim Rule**

A determination has been made under the authority of the Secretary of Defense (DoD), the Administrator of General Services (GSA), and the Administrator of the National Aeronautics and Space Administration (NASA) that urgent and compelling reasons exist to promulgate this interim rule without prior opportunity for public comment. The United States Trade Representative published the thresholds in the December 12, 2005, **Federal Register** (70 FR 73510 to 73511). This action is necessary because these threshold changes go into effect January 1, 2006. However, pursuant to Public Law 98-577 and FAR 1.501, the Councils will consider public comments received in response to this interim rule in the formation of the final rule.

**List of Subjects in 48 CFR Parts 22, 25, and 52**

Government procurement.

Dated: December 28, 2005.

Gerald Zaffos,  
Director, Contract Policy Division.

Therefore, DoD, GSA, and NASA amend 48 CFR parts 22, 25, and 52 as set forth below:

1. The authority citation for 48 CFR parts 22, 25, and 52 continues to read as follows:

Authority: 40 U.S.C. 121(c); 10 U.S.C. chapter 137; and 42 U.S.C. 2473(c).

**PART 22—APPLICATION OF LABOR LAWS TO GOVERNMENT ACQUISITIONS**

**22.1503 [Amended]**

2. Amend section 22.1503 by removing from paragraph (b)(3) "\$58,550" and adding "\$64,786" in its place; and removing from paragraph (b)(4) "\$175,000" and adding "\$193,000" in its place.

**PART 25—FOREIGN ACQUISITION**

**25.202 [Amended]**

3. Amend section 25.202 by removing from paragraph (c) "\$6,725,000" and adding "\$7,407,000" in its place.

4. Amend section 25.402 by revising the table following paragraph (b) to read as follows:

**25.402 General.**

\* \* \* \* \*

(b) \* \* \*

Trade Agreement	Supply Contract (equal to or exceeding)	Service Contract (equal to or exceeding)	Construction Contract (equal to or exceeding)
WTO GPA .....	\$193,000	\$193,000	\$7,407,000
FTAs			
NAFTA			
-Canada .....	25,000	64,786	8,422,165
-Mexico .....	64,786	64,786	8,422,165

Trade Agreement	Supply Contract (equal to or exceeding)	Service Contract (equal to or exceeding)	Construction Contract (equal to or exceeding)
Chile FTA .....	64,786	64,786	7,407,000
Singapore FTA .....	64,786	64,786	7,407,000
Australia FTA .....	64,786	64,786	7,407,000
Israeli Trade Act .....	50,000	.....	.....

**25.601 [Amended]**

■ 5. Amend section 25.601 by removing from paragraph (a)(1) "\$175,000" and adding "\$193,000" in its place; removing from paragraph (a)(2) "\$6,725,000" and adding "\$7,407,000" in its place; and removing from paragraph (a)(3)(ii) "\$175,000" and adding "\$193,000" in its place.

**25.1101 [Amended]**

■ 6. Amend section 25.1101 by—  
 ■ a. Removing from paragraph (b)(1)(i)(A) "\$175,000" and adding "\$193,000" in its place; removing from paragraph (b)(1)(iii) "\$58,550" and adding "\$64,786" in its place; and removing from paragraph (b)(2)(iii) "\$58,550" and adding "\$64,786" in its place;  
 ■ b. Removing from paragraph (c)(1) "\$175,000" and adding "\$193,000" in its place; and  
 ■ c. Removing from paragraph (d) "\$175,000" and adding "\$193,000" in its place.

**25.1102 [Amended]**

■ 7. Amend section 25.1102 by—  
 ■ a. Removing from the introductory text of paragraph (a) "\$6,725,000" and adding "\$7,407,000" in its place;  
 ■ b. Removing from the introductory text of paragraph (c) "\$6,725,000" and adding "\$7,407,000" in its place; and removing from paragraph (c)(3) "\$6,725,000" and "\$7,611,532" and adding "\$7,407,000" and "\$8,422,165", respectively, in their place; and  
 ■ c. Removing from paragraph (d)(3) "\$6,725,000" and "\$7,611,532" and adding "\$7,407,000" and "\$8,422,165", respectively, in their place.

**25.1103 [Amended]**

■ 8. Amend section 25.1103 by removing from paragraphs (c)(1)(i) and

(c)(1)(ii)(B) "\$175,000" and adding "\$193,000" in their place.

**PART 52—SOLICITATION PROVISIONS AND CONTRACT CLAUSES**

**52.212-5 [Amended]**

■ 9. Amend section 52.212-5 by revising the date of the clause to read "(JAN 2006)" and removing from paragraph (b)(15) of the clause "(Jun 2004)" and adding "(Jan 2006)" in its place.

**52.213-4 [Amended]**

■ 10. Amend section 52.213-4 by revising the date of the clause to read "(Jan 2006)" and removing from paragraph (b)(1)(i) of the clause "(Jun 2004)" and adding "(Jan 2006)" in its place.

**52.222-19 [Amended]**

■ 11. Amend section 52.222-19 by revising the date of the clause to read "(JAN 2006)"; removing from paragraph (a)(3) of the clause "\$58,550" and adding "\$64,786" in its place; and removing from paragraph (a)(4) of the clause "\$175,000" and adding "\$193,000" in its place.

[FR Doc. 06-54 Filed 1-4-06; 8:45 am]

BILLING CODE 6820-EP-S

**DEPARTMENT OF DEFENSE**

**GENERAL SERVICES ADMINISTRATION**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**48 CFR Chapter 1**

**Federal Acquisition Regulation; Small Entity Compliance Guide**

**AGENCIES:** Department of Defense (DoD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

**ACTION:** Small Entity Compliance Guide.

**SUMMARY:** This document is issued under the joint authority of the Secretary of Defense, the Administrator of General Services and the Administrator for the National Aeronautics and Space Administration. This Small Entity Compliance Guide has been prepared in accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It consists of a summary of rule appearing in Federal Acquisition Circular (FAC) 2005-08 which amends the FAR. An asterisk (\*) next to a rule indicates that a regulatory flexibility analysis has been prepared. Interested parties may obtain further information regarding this rule by referring to FAC 2005-08 which precedes this document. These documents are also available via the Internet at <http://www.acqnet.gov/far>.

**FOR FURTHER INFORMATION CONTACT:** Laurieann Duarte, FAR Secretariat, (202) 501-4225. For clarification of content, contact the analyst whose name appears in the table below.

**LIST OF RULES IN FAC 2005-08**

Item	Subject	FAR case	FAR Analyst
I .....	Trade Agreements—Thresholds (Interim) .....	2005-030	Marshall.



**Item I—Trade Agreements—Thresholds (Interim) (FAR Case 2005-030)**

This interim rule changes the thresholds for application of the World Trade Organization Government Procurement Agreement and the other Free Trade Agreements with Canada,

Mexico, Chile, Singapore, and Australia. These threshold increases occur every two years in order to keep pace with inflation. The United States Trade Representative published the thresholds in the December 12, 2005, **Federal Register** (70 FR 73510 to 73511).

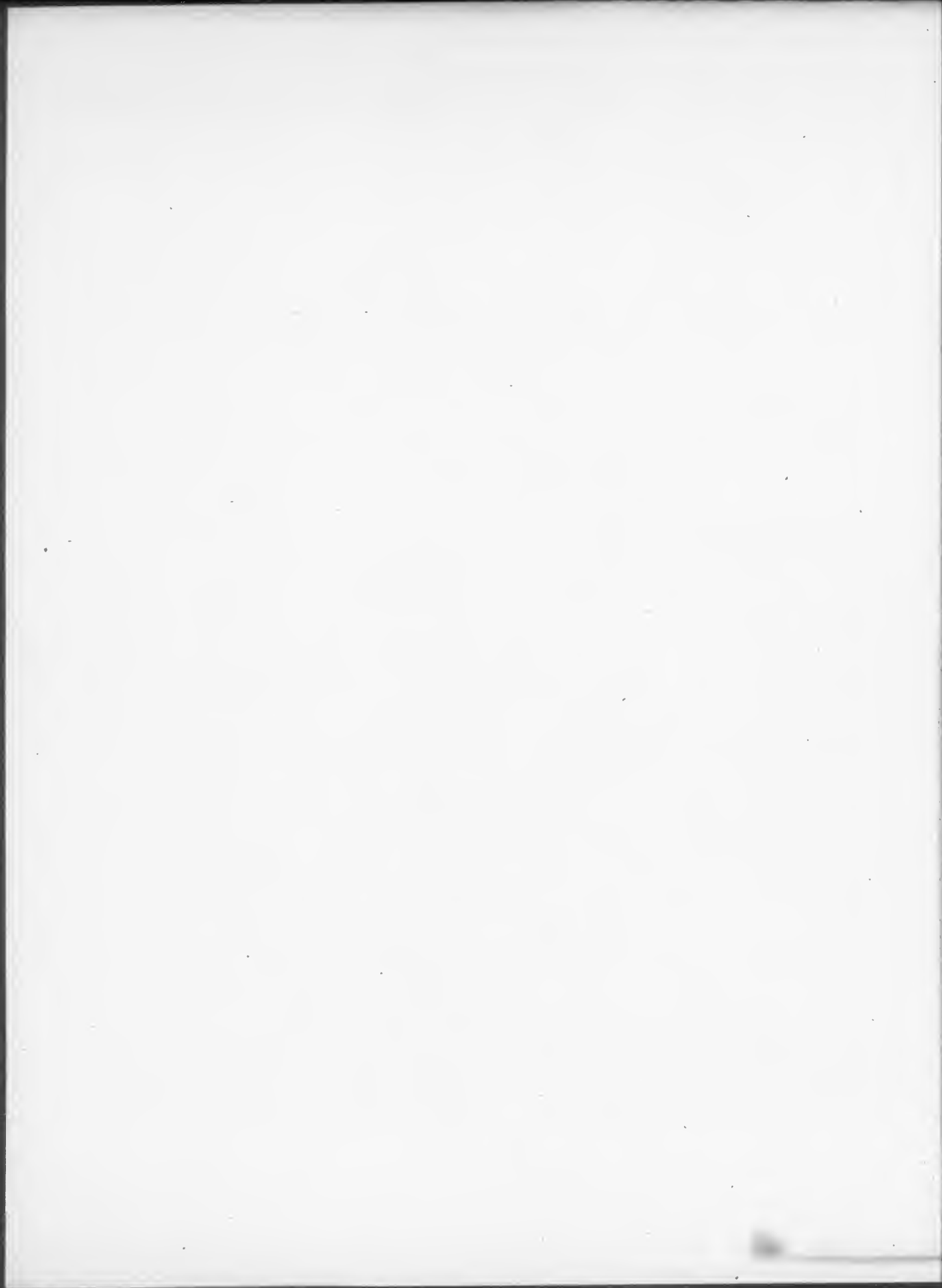
Dated: December 28, 2005.

**Gerald Zaffos,**

*Director, Contract Policy Division.*

[FR Doc. 06-52 Filed 1-4-06; 8:45 am]

BILLING CODE 6820-EP-S





# Federal Register

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Thursday,  
January 5, 2006

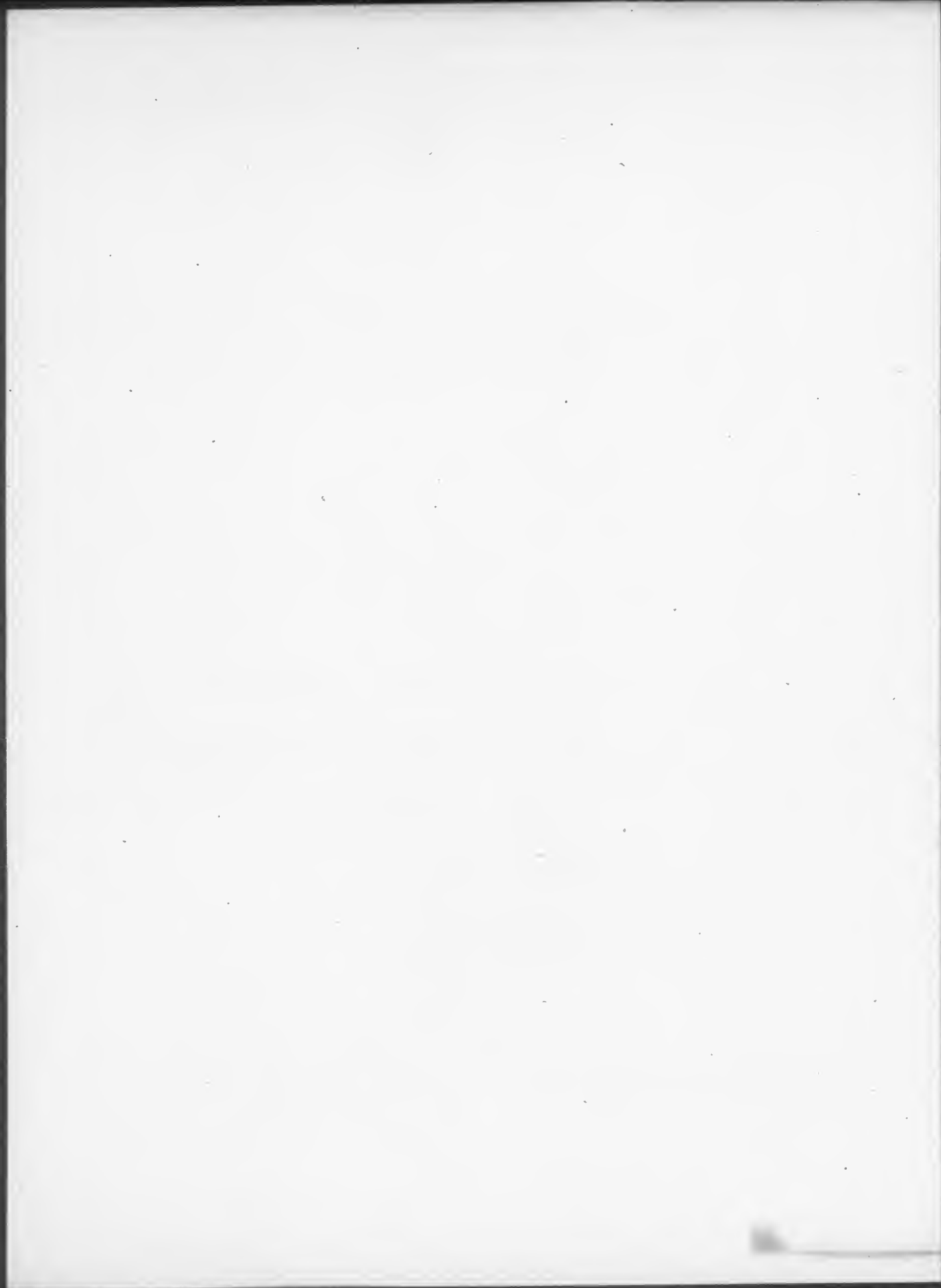
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Part VI

## The President

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Presidential Determination No. 2006-7 of  
December 30, 2005—Presidential  
Determination on Imports of Circular  
Welded Non-Alloy Steel Pipe From the  
People's Republic of China



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**Presidential Documents**

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Title 3—

Presidential Determination No. 2006-7 of December 30, 2005

The President

**Presidential Determination on Imports of Circular Welded Non-Alloy Steel Pipe from the People's Republic of China****Memorandum for the Secretary of Commerce[,] the Secretary of Labor[, and] the United States Trade Representative**

Pursuant to section 421 of the Trade Act of 1974, as amended (19 U.S.C. 2451), I have determined the action I will take with respect to the affirmative determination of the United States International Trade Commission (USITC) regarding imports of circular welded non-alloy steel pipe (steel pipe) from China (Investigation No. TA-421-6). After considering all relevant aspects of the investigation, I have determined that providing import relief for the U.S. steel pipe industry is not in the national economic interest of the United States. In particular, I find that the import relief would have an adverse impact on the United States economy clearly greater than the benefits of such action.

The facts of this case indicate that any import relief, including either of the USITC's proposed remedies, is likely to be ineffective because of the extent to which imports from third countries would likely replace curtailed Chinese imports. A large number of third countries—the USITC documents more than 50 of them—supply the U.S. market with steel pipe. Although antidumping duties currently apply to imports from eight of those countries, there are many other countries currently supplying steel pipe to the U.S. market that could fill the void created by curtailed Chinese imports. Under these circumstances, import relief would likely not provide a meaningful benefit to domestic producers.

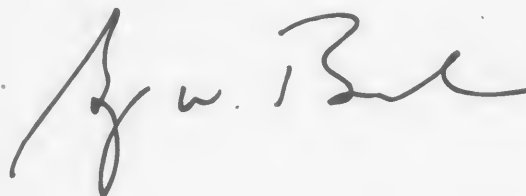
In addition, imposing import relief would cost U.S. consumers substantially more than the increased income that could be realized by domestic producers. According to USITC estimates, the USITC's recommended quota remedy would generate costs for U.S. consumers five times greater than the additional income that could be realized by domestic producers. Under the USITC's recommended tariff rate quota remedy, the costs would be four times greater than the income generated by domestic producers.

While the particular circumstances of this case make clear that the U.S. national economic interest would not be served by the imposition of import relief under section 421, I remain fully committed to exercising the important authority granted to me under section 421 when the circumstances of a particular case warrant it.

I hereby direct the Secretary of Commerce and the Secretary of Labor to expedite consideration of any Trade Adjustment Assistance applications received from domestic producers or their workers, consistent with their statutory mandates.



The United States Trade Representative is authorized and directed to publish this memorandum in the **Federal Register**.

A handwritten signature in black ink, appearing to read "G. W. Bush". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

THE WHITE HOUSE,  
*Washington, December 30, 2005.*

[FR Doc. 06-156  
Filed 1-4-06; 11:42 am]  
Billing code 3190-01-P

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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.

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- Introduction; published 1-5-06
- Trade agreements; thresholds; published 1-5-06

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Air quality implementation plans; approval and promulgation; various States:

- Colorado; correction; published 12-6-05

**GENERAL SERVICES ADMINISTRATION**

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- Introduction; published 1-5-06
- Trade agreements; thresholds; published 1-5-06

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**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

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- Introduction; published 1-5-06
- Trade agreements; thresholds; published 1-5-06

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**LIST OF PUBLIC LAWS**

This is a continuing list of public bills from the current session of Congress which

have become Federal laws. It may be used in conjunction with "PLUS" (Public Laws Update Service) on 202-741-6043. This list is also available online at <http://www.archives.gov/federal-register/laws.html>.

The text of laws is not published in the **Federal Register** but may be ordered in "slip law" (individual pamphlet) form from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (phone, 202-512-1808). The text will also be made available on the Internet from GPO Access at <http://www.gpoaccess.gov/plaws/index.html>. Some laws may not yet be available.

**H.R. 2863/P.L. 109-148**

Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006 (Dec. 30, 2005; 119 Stat. 2680)

**H.R. 3010/P.L. 109-149**

Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 2006. (Dec. 30, 2005; 119 Stat. 2833)

**H.R. 4525/P.L. 109-150**

Second Higher Education Extension Act of 2005 (Dec. 30, 2005; 119 Stat. 2884)

**H.R. 4579/P.L. 109-151**

To amend title I of the Employee Retirement Income Security Act of 1974, title XXVII of the Public Health Service Act, and the Internal Revenue Code of 1986 to extend by one year provisions requiring parity in the application of certain limits to mental health benefits. (Dec. 30, 2005; 119 Stat. 2886)

**S. 205/P.L. 109-152**

Buffalo Soldiers Commemoration Act of 2005 (Dec. 30, 2005; 119 Stat. 2887)

**S. 652/P.L. 109-153**

Benjamin Franklin National Memorial Commemoration Act of 2005 (Dec. 30, 2005; 119 Stat. 2889)

**S. 1238/P.L. 109-154**

Public Lands Corps Healthy Forests Restoration Act of

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**S. 1281/P.L. 109-155**

National Aeronautics and Space Administration Authorization Act of 2005 (Dec. 30, 2005; 119 Stat. 2895)

**S. 1310/P.L. 109-156**

Delaware Water Gap National Recreation Area Improvement Act (Dec. 30, 2005; 119 Stat. 2946)

**S. 1481/P.L. 109-157**

Indian Land Probate Reform Technical Corrections Act of 2005 (Dec. 30, 2005; 119 Stat. 2949)

**S. 1892/P.L. 109-158**

To amend Public Law 107-153 to modify a certain date. (Dec. 30, 2005; 119 Stat. 2954)

**S. 1988/P.L. 109-159**

To authorize the transfer of items in the War Reserves Stockpile for Allies, Korea. (Dec. 30, 2005; 119 Stat. 2955)

**S. 2167/P.L. 109-160**

To amend the USA PATRIOT ACT to extend the sunset of certain provisions of that Act and the lone wolf provision of the Intelligence Reform and Terrorism Prevention Act of 2004 to July 1, 2006. (Dec. 30, 2005; 119 Stat. 2957)

**H.R. 4635/P.L. 109-161**

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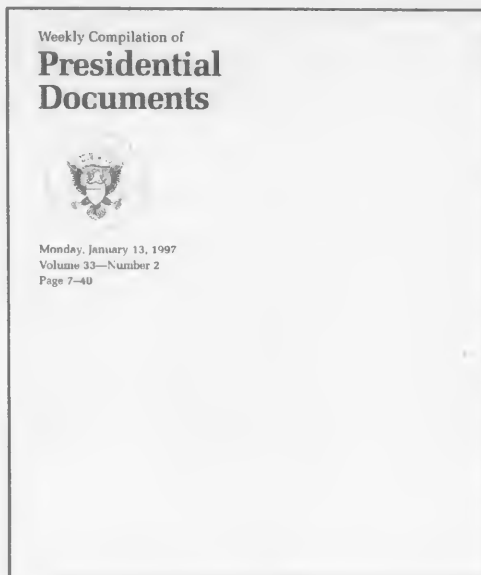
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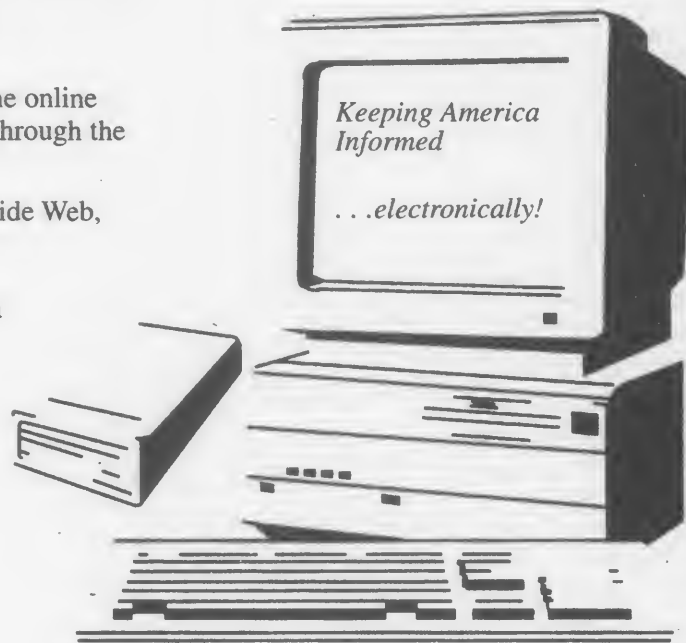
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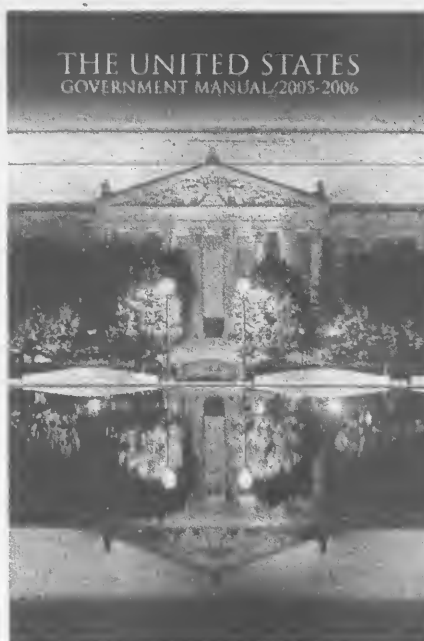
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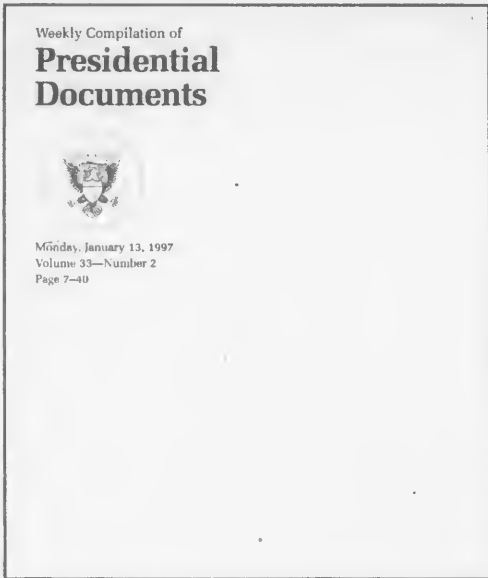
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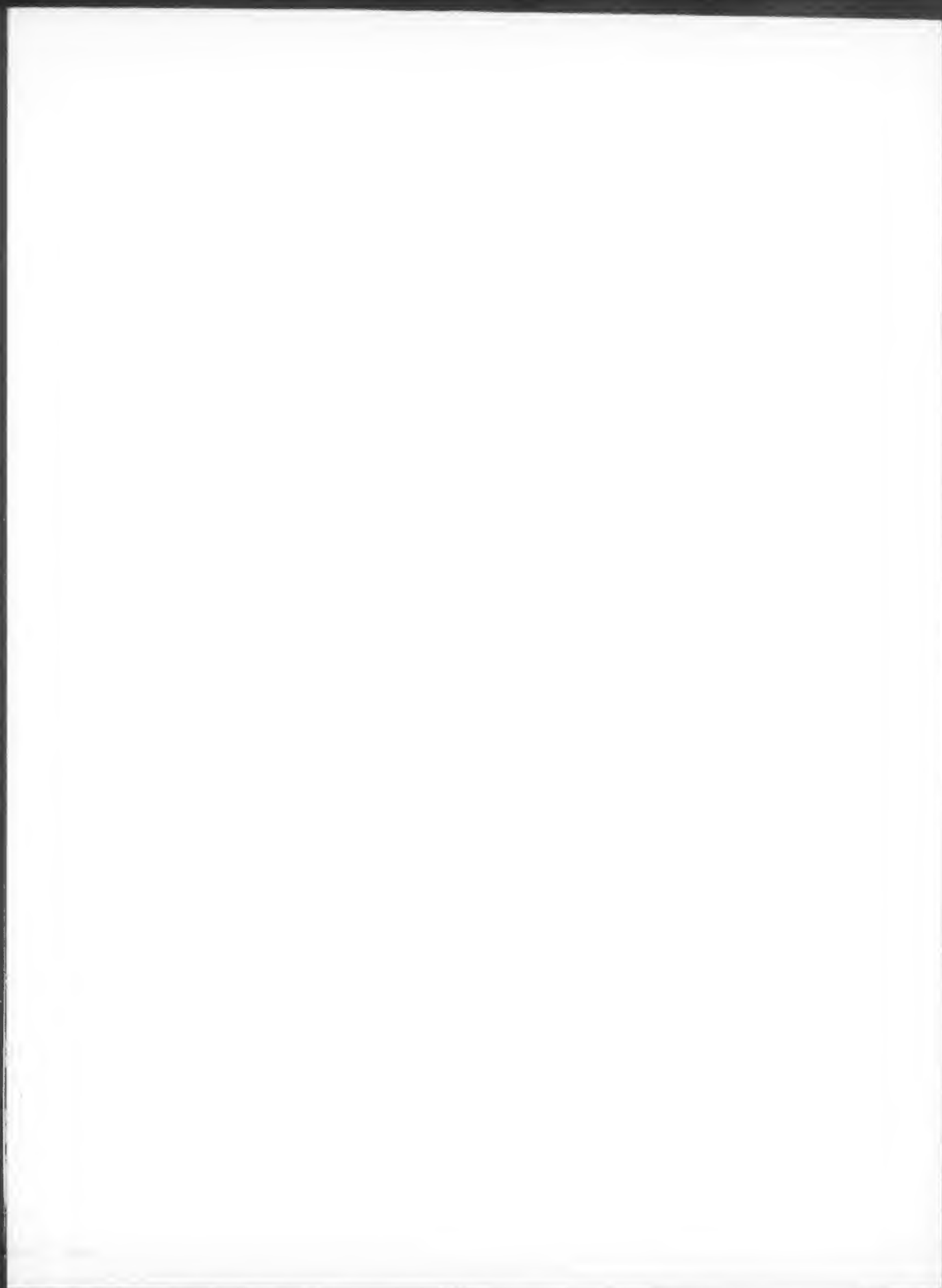
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