

# SOUTHERN APPALACHIAN COAL REGION

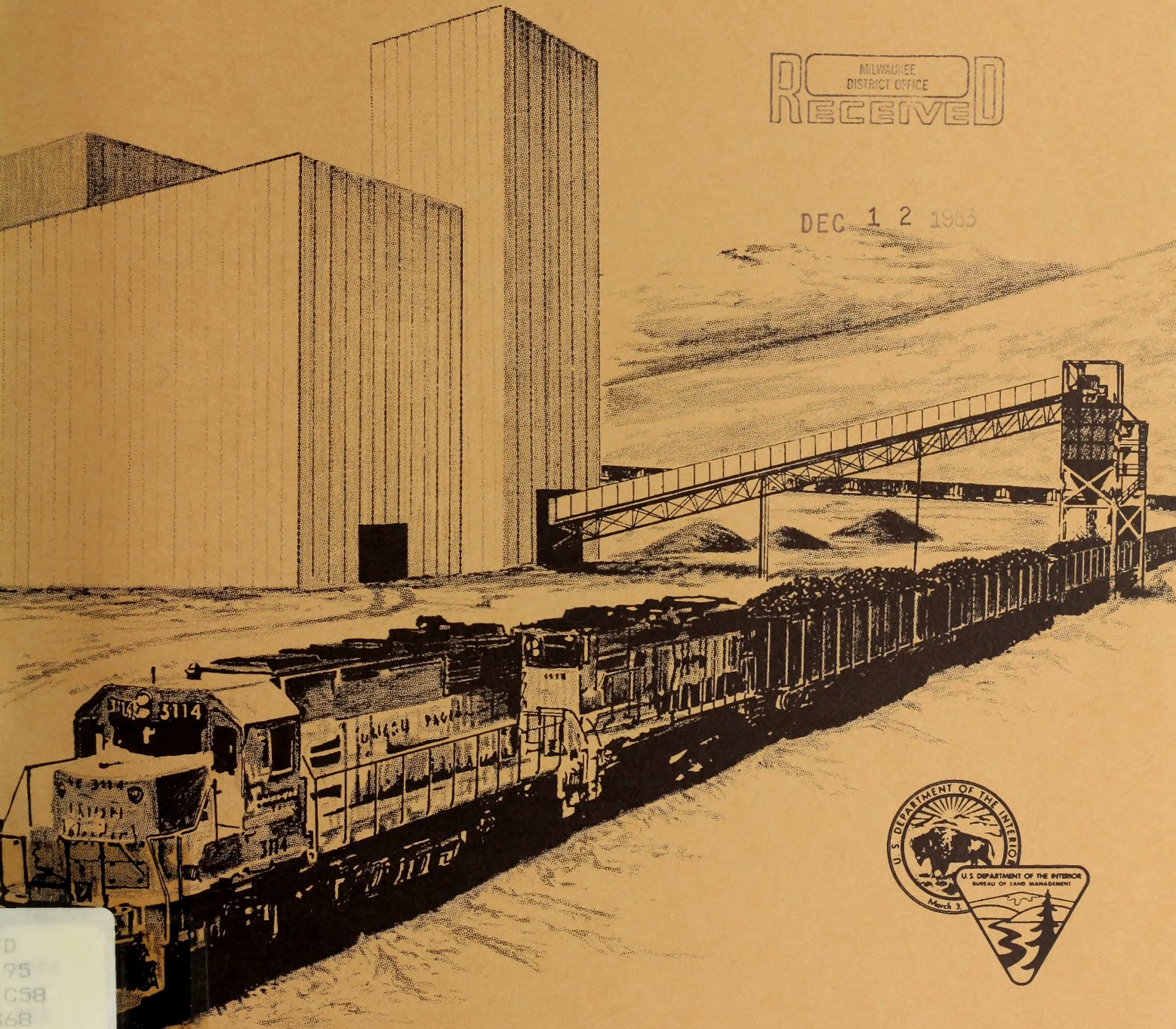


## FINAL ENVIRONMENTAL IMPACT STATEMENT II

U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MILWAUKEE  
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SOUTHERN APPALACHIAN REGIONAL COAL  
ENVIRONMENTAL IMPACT STATEMENT-II

Draft ( )      Final (X)

The United States Department of the Interior, Bureau of Land Management

1. Type of Action:      Administrative (X)      Legislative ( )

2. Abstract: The Bureau of Land Management proposes to continue with an active coal leasing program in North Central Alabama to help meet the nation's future energy needs. The environmental impacts of four leasing alternatives, including a No Action Alternative, are analyzed in this EIS. The preferred alternative would offer for lease in mid-1984, 3 underground tracts and 12 surface-mineable tracts, which would result in an average annual production of approximately 8.47 million tons. If implemented, the preferred alternative would result in 5,184 acres of surface disturbance by the year 1995.

3. The draft environmental impact statement received a 60-day public review. Comments received during this review period are analyzed and responded to in this final environmental impact statement. Comments were received from individuals, organizations, and governmental agencies and are displayed in appendix A.

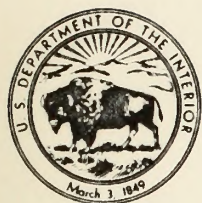
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5. The draft of this environmental impact statement was made available to the U.S. Environmental Protection Agency (EPA) and the public on June 24, 1983.

6. This final environmental impact statement will be made available to the EPA and the public November 15, 1983.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

JACKSON DISTRICT OFFICE  
JACKSON MALL OFFICE COMPLEX, SUITE 326  
Post Office Box 11348  
JACKSON, MISSISSIPPI 39213

IN REPLY REFER TO:

1792 (022.34)

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## NOTICE

Enclosed is Volume II of the Second Round Final Environmental Impact Statement (FEIS-II) for the Southern Appalachian Coal Region. The Second Round Draft Environmental Impact Statement (DEIS-II), issued on June 24, 1983, now serves as Volume I of FEIS-II.

Comments received by BLM on the DEIS-II did not bring about significant changes in the data, analysis, or conclusions it contained. Therefore, Volume II responds to the comments received, reprints the comment letters, and makes whatever revisions, additions, or deletions are required in DEIS-II. Volumes I and II constitute the Final Environmental Impact Statement. The FEIS-II was filed with the Environmental Protection Agency on December 2, 1983, with a subsequent Federal Register Notice published on December 7, 1983.

The DEIS-II, now referred to as Volume I, has not been reprinted. Single copies are available from the EIS Team Leader, USDI Bureau of Land Management, Southeastern District Office, P. O. Box 11348, Delta Station, Jackson, Mississippi 39213.

*Donald L. Giesey*

Manager, Southeastern District

Enclosure



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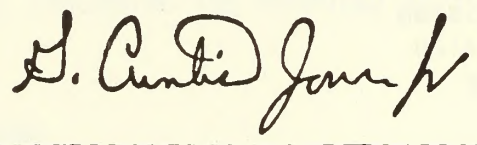
**FINAL**

**ENVIRONMENTAL IMPACT STATEMENT-II  
SOUTHERN APPALACHIAN REGION**

Prepared by:

**BUREAU OF LAND MANAGEMENT**

**DEPARTMENT OF THE INTERIOR**



---

Eastern States Director  
Bureau of Land Management  
Alexandria, Virginia

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## DISTRIBUTION LIST

### FEDERAL AGENCIES

\*Advisory Council on Historic Preservation  
Appalachian Regional Commission  
Department of Agriculture  
Farmers Home Administration  
\*Forest Service  
Office of the Secretary  
\*Soil Conservation Service  
\*Department of the Army, Corps of Engineers  
\*Department of Commerce  
Department of Energy  
\*Department of Health and Human Services  
Department of Housing and Urban Development  
Department of the Interior  
\*Bureau of Indian Affairs  
\*Bureau of Mines  
\*Fish and Wildlife Service  
Geological Survey  
\*National Park Service  
\*Office of the Solicitor  
\*Office of Surface Mining  
Water and Power Resources Service  
Department of Justice  
Department of Labor  
Mine Safety and Health Administration  
\*Department of Transportation  
\*Environmental Protection Agency  
Federal Energy Regulatory Commission  
Interstate Commerce Commission  
Nuclear Regulatory Commission  
\*Tennessee Valley Authority

### County Governments, Councils and Commissions:

Fayette  
Jefferson  
Tuscaloosa  
Walker

### Planning Agencies:

\*West Alabama Planning and Development Council  
Birmingham Regional Planning Commission

### OTHER ORGANIZATIONS AND INDIVIDUALS

Numerous other special interest groups, organizations, and individuals expressing interest in the proposed action have been sent copies of this statement and have been invited to comment.

\*Denotes agencies who responded with comments.

### STATE AGENCIES

Alabama Air Pollution Control Commission  
\*Alabama Department of Energy  
\*Alabama Department of Environmental Management  
\*Alabama Department of Industrial Relations  
\*Alabama Geological Survey  
\*Alabama Soil and Water Conservation Commission  
\*Alabama State Clearinghouse  
Alabama Surface Mining Commission  
Alabama Department of Conservation and Natural Resources  
Office of the Governor  
\*Alabama Historical Commission  
(State Historic Preservation Office)  
\*State of Alabama Highway Department  
\*The University of Alabama, Office of Archaeological Research

### LOCAL AGENCIES

Mayors  
Berry  
Birmingham  
Carbon Hill  
Cordova  
Fayette  
Jasper  
Northport  
Oakman  
Tuscaloosa

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## PREFACE

Environmental Impact Statement-II on the Southern Appalachian Coal Region consists of two volumes. Volume I was originally printed as the Draft Environmental Impact Statement (DEIS) in June, 1983. Comments received on the DEIS (Vol. I) did not require significant changes in the data, analysis, or conclusions. Volume I was not reprinted. Copies of Volume I are available upon request from the EIS Team Leader, Bureau of Land Management, Jackson District Office, Jackson Mall Office Center, 300 Woodrow Wilson, Suite 3495, Jackson, MS 39213.

Volume I contains the regional analysis and summaries of the site-specific analyses for the 16 delineated coal tracts being studied for possible leasing. Volume II contains explanations in response to comments on the DEIS and an errata sheet incorporating necessary changes in Volume I. Chapters 1 through 4 and all appendices in Volume I are incorporated by reference. Changes to Volume I are in the form of revisions, additions, or deletions.

Volumes I and II constitute the final environmental statement.

# **GUIDE TO THE EIS DRAFT AND FINAL**

**IF YOU WANT TO KNOW ABOUT FEDERAL POLICIES AND THE BACKGROUND OF THIS EIS, READ CHAPTER 1 OF THE EIS (VOLUME I)**

Chapter 1, Purpose and Need for Action, discusses the need for new Federal leasing in the Alabama Subregion of the Southern Appalachian Region to help meet national energy goals. This chapter provides background information, putting this need into perspective. It outlines the methods and factors used in selecting and combining coal mining tracts into alternatives for decision-maker consideration in meeting production goals. This chapter also details the concerns raised by government agencies and the public. Chief among these is concern over decreases in water quality and availability.

**IF YOU WANT TO KNOW WHAT ALTERNATIVES HAVE BEEN PROPOSED AND COMPARE THEIR MOST SIGNIFICANT EFFECTS, READ CHAPTER 2 OF THE EIS (VOLUME I)**

Chapter 2, Alternatives Including the Proposed Action, summarizes the environmental impacts of each of four alternatives, including No Action. The Regional Coal Team (RCT), an intergovernmental committee charged with supervision of this EIS effort, has selected Alternative Three as the Preferred Alternative, providing the best balance between environmental impacts and the need for increased Federal coal production. Alternative Three calls for the leasing of all surface tracts and all high-ranked underground tracts, a total of 15 separate tracts containing an estimated 112 million tons of recoverable Federal coal. The No Action Alternative is a forecast of anticipated baseline impacts without additional Federal coal leasing, against which the magnitude of the impacts projected for the other alternatives can be measured. The Secretary of the Interior is the decision-maker and may select any of the four alternatives discussed or some other alternative determined from the information provided in this document. This chapter only summarizes the environmental effects explained in detail in chapter 4 of the EIS.

**IF YOU WANT TO KNOW ABOUT THE ENVIRONMENT OF THE AREA AFFECTED, READ CHAPTER 3 OF THE EIS (VOLUME I)**

Chapter 3, Description of the Environment, identifies the study area for each affected resource and describes the current environmental situation.

**IF YOU WANT DETAILED INFORMATION ON HOW THE ALTERNATIVES WILL AFFECT A PARTICULAR RESOURCE, READ CHAPTER 4 OF THE EIS (VOLUME I)**

Chapter 4, Environmental Consequences, is a resource-by-resource analysis of the impacts of new Federal coal leasing. Here the reader can find the

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detailed explanations for the impacts presented in chapter 2. Thus, to understand the impacts on small mammals caused by the various alternatives, the reader may turn to the Wildlife portion of this section for an explanation.

IF YOU WANT TO LEARN THE OPINION OF COMMENTERS ABOUT THIS EIS, READ  
CHAPTER 5 AND APPENDIX A OF THE FINAL EIS (VOLUME II)

Chapter 5, Response to Comments, analyzes all substantive comments by category and sets forth the BLM responses. Appendix A contains a reprint of these comments.

# CHAPTER 5

## RESPONSE TO COMMENTS

### REGIONAL COAL TEAM ACTIVITIES

A discussion of the Regional Coal Team (RCT) activities up to the date of publication of this Final EIS may be found below and at appendix D (Vol. II), and also at pages 11 through 15 (ch. 1) and appendix E (Vol. 1). When the Federal Coal Management Program was adopted, it was envisioned that any tract selected by the Secretary for sale could be offered over a four-year period. As a general start-up consideration, however, sales schedules are being planned for periods shorter than four years. At this time, the Department anticipates, should the preferred alternative be adopted by the Secretary, tracts would be offered for sale over a 6- to 12-month period, beginning in May, 1984.

The most recent RCT meeting was held August 31, 1983. At that meeting, comments received on the DEIS and the BLM responses to them were discussed. In addition, a tentative schedule for the lease sales was proposed and discussed. The RCT agreed to a final recommended tract ranking and selection and gave directions as to the preparation and format of this FEIS. Appendix D of this document (Vol. II) contains the minutes and record of discussion of this RCT meeting. Copies of all EIS team materials provided for the RCT's consideration in tract ranking and selection, and lease sale scheduling are available for public review at the Jackson District Office of the BLM.

### RESPONSE TO COMMENTS

Copies of the Draft Environmental Impact Statement II were sent to the agencies and organizations listed on page ii of Volume I. Comments were received from the following:

#### List of Commenters

Comment Number	Commenter
1.....	Ark Land Company.
2.....	Geological Survey of Alabama.
3.....	University of Alabama, Office of Archeological Research.
4.....	U.S. Department of Interior, Bureau of Indian Affairs.
5.....	U.S. Department of the Interior, Bureau of Mines.
6.....	U.S. Department of the Interior, Office of Surface Mining, Reclamation and Enforcement.
7.....	Advisory Council on Historic Preservation.
8.....	U.S. Department of the Interior, Fish and Wildlife Service.

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### List of Commenters-Continued

Comment Number	Commenter
9.....	U.S. Department of Agriculture, Forest Service.
10.....	State of Alabama Department of Economic and Community Affairs
11.....	West Alabama Planning and Development Council.
12.....	State of Alabama Historical Commission.
13.....	State of Alabama Highway Department.
14.....	State of Alabama Soil and Water Conservation.
15.....	State of Alabama Office of Employment and Training.
16.....	Geological Survey of Alabama.
17.....	State of Alabama Department of Energy.
18.....	State of Alabama Department of Environmental Management.
19.....	U.S. Dept. of Commerce, National Oceanic and Atmospheric Admin.
20.....	U.S. Department of Agriculture, Soil Conservation Service.
21.....	U.S.D.I., Office of the Solicitor, Atlanta Regional Office.
22.....	U.S. Department of Transportation, Federal Highway Admin.
23.....	U.S. Dept. of Health and Human Services, Public Health Service.
24.....	U.S. Environmental Protection Agency, Region IV.
25.....	United States Steel Corporation.
26.....	U.S.D.I. National Park Service.
27.....	U.S. Department of the Army, Corps of Engineers.
28.....	Tennessee Valley Authority.
29.....	Alabama Coal Association.

### Types of Commenters and Summary of Opinions Expressed

Twenty-nine written comments were received on the DEIS. Of these, 14 were formal comments from Federal agencies. There were 11 comments from state and local agencies, seven of which were no comment responses. (The Geological Survey of Alabama responded both directly to BLM and to the State's A-95 review agency.) Three representatives of private industry responded. All comments were reprinted in their entirety in appendix A of Volume II.

One oral comment was received at the formal hearing held in Tuscaloosa on August 31, 1983. It was presented as a backup to one of the written comments (comment #25). The BLM response to each comment is presented below, taken commenter by commenter.

#### Number 1 - Ark Land Company

Comment: Expressed support for the mining of Federally-owned coal under the company-owned surface.

Response: Comment noted.

#### Number 2 - Geological Survey of Alabama

Comment: Stated satisfaction with the Draft EIS.

## RESPONSE TO COMMENTS

Response: Comment noted.

Number 3 - The University of Alabama, Office of Archaeological Research  
Comment: The comments concerning proposed treatments are informative and logical. Additionally, there is no problem with any of the proposed procedures governing cultural resource policies.  
Response: Comments noted and as requested, the BLM materials addressed in the comments have been sent.

Number 4 - U.S. Department of Interior, Bureau of Indian Affairs  
Comment: There are no Federal Indian trust lands in the state; therefore there are no impacts on any interests of this Bureau. They are pleased with the manner in which cultural resources are addressed.  
Response: Comment noted.

Number 5 - U.S. Department of Interior, Bureau of Mines  
Comment: No comment response.  
Response: Noted.

Number 6 - U.S. Department of Interior, Office of Surface Mining  
Comment (1): The baseline data appears sufficient (112 surface monitoring sites and 253 wells). This data will prove most useful for those individuals performing probable hydrologic consequences (PHC) and cumulative hydrologic impact analyses.  
Response (1): Comment noted.  
Comment (2): The appendix indicated the data was collected from 1976-1983; is data collection still on-going?  
Response (2): A hydrologic collection network in support of BLM's Coal Leasing Program is currently being conducted by USGS Water Resources Division. Monthly water quality determinations are made at 20 surface-water sites that drain lands over Federal Minerals Ownership (FMO). Additionally, rainfall data at 10 sites, monthly water-level measurements at 34 observation wells, and continuous measurements at 10 wells are performed. Data collected and analyzed by the USGS were the primary sources of input for the hydrologic sections of the Regional Coal EIS II.  
Comment (3): Why wasn't pH included as one of the excellent indicators of mine drainage?  
Response (3): Values of pH were not mentioned as "excellent indicators of mine drainage" because in the EIS area calcareous minerals such as siderite, calcite, and ankerite sometimes occur in mine spoil, resulting in rapid neutralization of acid mine drainage to near-neutral or alkaline pH values. For example, the specific conductance at USGS site 02462600 on Blue Creek during low flow increased by a factor of 27 from November, 1976, to July, 1980. The pH of the water at the same site generally was not lowered by the mine drainage. Similar occurrence of calcareous minerals and neutralization of mine drainage has been reported in other parts of the Warrior Basin. Values of pH, therefore, generally do not indicate the presence of mine drainage as do



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specific conductance, dissolved solids, sulfate, iron, manganese, total hardness, or noncarbonate hardness values.

Comment (4): Is there any way to tell from the data collected or the monitoring stations which samples are indicative of mined versus unmined drainages?

Response (4): No. Determining the presence of mined versus unmined drainage from hydrologic data requires additional data. Such factors as basin acreage disturbed, mine age, channel distance from sampling point to mined area, unit area discharge, and geochemical characteristics of the overburden must be considered. In general, mine drainage in the Black Warrior Basin is characterized by iron concentrations in excess of 300 micrograms/L, sulfate in excess of 200 milligrams/L, and hardness values ranging from hard to very hard. Additionally, noncarbonate hardness is generally greater than 50 percent of the total hardness in streams draining mined basins.

Comment (5): The hydrologic technical appendix referred to figure D-2 (flow duration curve for appraising discharge characteristics of a stream before and after mining) and Appendix C (showing stream flow characteristics and methods used in determining them) - neither of these referenced papers were included in this submittal.

Response (5): Your review had covered the Technical Appendix only. As per your request the Southern Appalachian Regional EIS II which contains Appendices C and D referred to in the Technical Appendix has been sent to you.

Comment (6): Appendix D, Table 1 indicated five (5) surface water quality monitoring stations with 0.0 flow; however, chemical analyses were provided. Where did the analysis come from? That point should be addressed or clarified.

Response (6): In Table 1, Appendix D, those water quality stations showing 0.0 cubic feet per second represent chemical analyses of USGS "seepage" runs where water samples are collected from 0.5 to 0.001 cubic feet per second discharge. Rounding error has apparently resulted in 0.0 instantaneous streamflow values.

### Number 7 - Advisory Council on Historic Preservation

Comment (1): The EIS does not appear to contain adequate provisions for the consideration of historic properties in any coal leasing.

Response (1): Response number 2 below contains the special stipulations. Refer to pages 114 - 115 of Volume I which address mitigation measures for cultural resources.

Comment (2): The EIS does not relate what treatment, if any, will be provided if historic properties are identified through stipulated surveys.

Response (2): Please note the section 4 discussion concerning terms of the PMOA on page 115 which states, "that if adverse effect cannot be prudently or feasibly avoided then mitigating measures specific to the qualifying characteristic(s) of the cultural resource be completed in accordance with the ACHP's publication entitled, 'Treatment of Archeological Properties: A Handbook' (November 1980)."

## RESPONSE TO COMMENTS

The following special stipulation pertaining to cultural resources was attached to the first round coal leases. This stipulation or a very similar one will be included in the lease terms of the second round of coal leasing.

(a) Before undertaking any activities that may disturb the surface of the leased lands, the lessee shall conduct a class III cultural resource intensive field inventory in a manner specified by the authorized officer of the Bureau of Land Management or of the surface managing agency (if different) on portions of the mine plan area and adjacent areas, or exploration plan area, that may be adversely affected by lease-related activities and which were not previously inventoried at such a level of intensity. The inventory shall be conducted by a qualified professional cultural resource specialist (i.e., archeologist, historian, or historical architect, as appropriate), approved by the authorized officer of the surface managing agency (Bureau of Land Management if the surface is privately owned), and a report of the inventory and recommendations for protecting any cultural resources identified shall be submitted to the Regional Director of the Office of Surface Mining (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area) and the authorized officer of the Bureau of Land Management or the surface managing agency (if different). The lessee shall undertake measures, in accordance with instructions from the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area), to protect cultural resources on the leased land. The lessee shall not commence the surface disturbing activities until permission to proceed is given by the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area).

(b) The lessee shall protect all cultural resource properties within the lease area from lease-related activities until the cultural resource mitigation measures can be implemented as part of an approved mining and reclamation plan or exploration plan.

(c) The cost of conducting the inventory, preparing reports, and carrying out mitigation measures shall be borne by the lessee.

(d) If cultural resources are discovered during operation under this lease, the lessee shall immediately bring them to the attention of the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area), or the authorized officer of the surface managing agency if the Regional Director, or District Mining Supervisor, as appropriate, is not available. The lessee shall not disturb such resources except as may be

## SOUTHERN APPALACHIAN REGION

subsequently authorized by the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area), will evaluate or have evaluated any cultural resources discovered, and will determine if any action may be required to protect or preserve such discoveries. The cost of data recovery for cultural resources discovered during lease operations shall be borne by the surface managing agency unless otherwise specified by the authorized officer of the Bureau of Land Management or of the surface managing agency (if different).

Comment (3): In accordance with the PMOA and the Council's regulations (36 CFR Part 800), if any historic properties are identified, BLM should ensure a consideration of their values, involving consultation with the Alabama State Historic Preservation Officer and, if necessary, requesting comments of the Council. With provisions such as these, planning for this round of coal leasing in the Southern Appalachian Coal Region would adequately address historic properties.

Response (3): Comment noted.

Number 8 - U.S. Department of the Interior, Fish and Wildlife Service

Comment: Our concerns to minimize impacts to fish and wildlife have been covered; we therefore have no further comments to make on the proposed leasing activities.

Response: Comment noted.

Number 9 - U.S. Department of Agriculture, Forest Service

Comment: From our perspective, we see no impact to the National Forests in Alabama as a result of the proposed leasing activities.

Response: Comment noted.

Number 10 - State of Alabama, Department of Economic and Community Affairs (A-95 Clearinghouse)

Comment: No comment. Cover letter detailing which state agencies were contacted for comment.

Response: Noted.

Number 11 - West Alabama Planning and Development Council

Comment: Concurrence (support).

Response: Noted.

Number 12 - State of Alabama Historical Commission

Comment: No comment.

Response: Noted.

Number 13 - State of Alabama Highway Department

Comment: No comment.

Response: Noted.

Number 14 - State of Alabama Soil and Water Conservation

Comment: No comment.

Response: Noted.

## RESPONSE TO COMMENTS

Number 15 - State of Alabama Office of Employment and Training

Comment: No comment.

Response: Noted.

Number 16 - Geological Survey of Alabama

Comment: No comment (separate comment letter #2).

Response: Noted.

Number 17 - State of Alabama Department of Energy

Comment: No comment.

Response: Noted.

Number 18 - Alabama Department of Environmental Management, Air Pollution Control Commission

Comment: The three-county area has been designated "Attainment" for sulphur dioxide (SO<sub>2</sub>), total suspended particulates (TSP), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), and lead (Pb).

Response: Comment incorporated. See appendix C (Vol. II).

Number 19 - U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA)

Comment: National Ocean Services (NOS) geodetic control survey monuments may be located in the proposed project area. For any planned action which will disturb or destroy these monuments, NOAA will require 90 days notice in order to plan for their relocation. They also recommend that funding be provided to cover the cost of said relocation.

Response: Comment noted. Mitigation measures have been added. See appendix C (Vol. II).

Number 20 - U.S. Department of Agriculture, Soil Conservation Service

Comment: The environmental consequences should show the amount, if any, of prime farmland that will be adversely affected.

Response: There are no areas of prime agricultural land overlying Federal minerals. There are a few small, widely scattered areas of "technically prime" farmland soils occurring on some of the tracts. These areas may or may not meet the OSM cropping history criterion for prime farmland (30 CFR 779.27(b)(1)). The state regulatory authority is consistent with this criteria under state regulation 785.17. There will be no significant impact to prime farmland through implementation of any of the Federal action alternatives.

Number 21 - U.S. Department of Interior, Office of the Solicitor

Comment: The document is satisfactory to the office except that it lacked the "name" of the person to be contacted to supply further information.

Response: This correction has been made in appendix C (Vol. II).

Number 22 - U.S. Department of Transportation, Federal Highway Administration

Comment (1): BLM should be aware of the proposed Appalachian Development Highway known as Corridor "X", and coordinate activities with the Alabama Highway Department.

## SOUTHERN APPALACHIAN REGION

Response (1): The Tuscaloosa Office has reviewed and commented on various planned segments of the Corridor "X" in the EIS study area.

Comment (2): The increased loads on the pavements may have a significant impact on the existing pavements which are not designed to carry these loads.

Response (2): According to the Alabama Highway Department, the design capacity of highways used for coal haulage in the 3-county area is sufficient to handle the "normal" truck loads. Alabama Highway Department planners, therefore, did not project a problem in this area. One major problem that has existed, however, involved the lack of monitoring of loads by the appropriate regulatory agencies. This has allowed haul vehicles to carry loads beyond legal limits with only a minimal probability of prosecution.

### Number 23 - U.S. Department of Health and Human Services, Public Health Service

Comment (1): The potential vector problems from mosquito populations on the impoundment ponds and surface water diversions were not addressed. The Final EIS should provide a description of present and anticipated mosquito populations in those areas. What control measures are anticipated? What uses of insecticides, if any, are planned? How will they be applied and in what quantities?

Response (1): Normally, mosquito populations are not controlled in natural or man-made impoundments in the 3-county EIS study area unless there is a perceived vector problem. It is not anticipated that any significant increase in mosquito populations will occur as a result of new Federal leasing because impoundments will be small and widely scattered.

Comment (2): While the Draft EIS states that "Impacts to municipal reservoirs ... would be minimal due to mitigating measures.", there will be significant localized effects from the mining operations on ground water supplies. The preferred alternative would destroy or impair 338 wells and disturb 50,106 acres of aquifers. The effects of these losses on human populations is not clear. Will alternative water supplies be made available to the residents of the area? It was mentioned that new wells would be drilled at depths of several hundred feet greater than the existing wells. This will result in greater pumping lifts and a need for casing to depths exceeding those of the aquifers which might be prone to recharge from the mine. Who is responsible for provision of these measures to replace existing water supplies?

Response (2): Alternative water supplies must be provided by the responsible mining company in any case where any well has been "affected by contamination, diminution, or interruption proximately resulting from the surface mining activities (Alabama Surface Mining Commission Reg. 816.54). There will be no need for increased well casing below unweathered rock. Figure D-1 of appendix D, Hydrology of the Existing Environment, shows that most wells (90 percent) are 250 feet or less in depth in the EIS area; thus the potential for the impairment of domestic wells by underground mining is low.

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Comment (3): Will development of these proposed mining tracts require relocation of human populations? If so, what relocation procedures will be followed?

Response (3): No relocation is projected.

Comment (4): The Final EIS should indicate whether a Corps of Engineers Section 10 and/or 404 Permit is required.

Response (4): A Corp of Engineers Section 10 and/or 404 Permit is not required since no dredge-and-fill operations on headwater streams (less than 5 cfs mean flow) or wetlands are expected to occur (personal comment, H.H. O'Sheen, U.S. Army Corps of Engineers, September 1, 1983). Additionally, no navigable streams directly drain the coal lease tracts and no bridges, levees, or dikes will be constructed on the streams within the tracts.

### Number 24 - U.S. Environmental Protection Agency

Comment (1): In the BLM's first round EIS of coal leasing in Alabama there appears to be more of a conscious attempt to "balance" the optimum amount of coal production that could be absorbed in the regional market against the environmental impacts associated with the various lease tracts. That is, only those tracts that were ranked high in regard to both coal economics and environment were offered for lease. We do not see a corresponding "balancing" of need versus environmental impacts in this current round of proposed leasing.

Response (1): The first round EIS reflected a Departmental policy of leasing for demand which required an analysis of the regional market and provided an analysis of the environmental impacts at various production levels. When the first round EIS was completed there was still sufficient concentrations of Federal coal remaining in the 3-county area to warrant a second round of coal leasing. Therefore, the EIS did not attempt to address all remaining leasable coal in the sub-region. The EIS-II, on the other hand, reflects the present Departmental policy of leasing for "reserves" and it addresses all remaining leasable Federal coal in the 3-county area.

All tracts being studied in EIS-II have undergone a rigorous screening process. That is, they have been subjected to land-use analysis, trade-off decisions resulting therefrom, surface owner consultation, and the application of the BLM unsuitability criteria. This process has minimized possible significant impacts to the environment.

Tracts are ranked relative to each other. Therefore a tract may carry a "high" environment risk ranking when comparing it to a second tract. Overall, however, the real environmental risk is nominal. For these reasons, we believe there is a balance between the leasing proposal and environmental trade-offs.

The Department further believes that Federal coal should be offered in a timely manner to permit industry to build a reserve from which

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to draw. This policy is in contrast to previous leasing policy which made coal available to meet current demand. The latter policy carries the risk of driving coal prices continually upward; the added cost, of course, would be passed to the consumer. Leasing for reserves, on the other hand, stabilizes energy costs by maintenance of adequate reserves.

Comment (2): Other than in Table 2-1, very little lease tract specific description of the impacts on the natural environment is given.

Response (2): Pages 12 and 13 contain a discussion of the site-specific analysis that was performed on each tract in the process leading to EIS-II. Paragraph 1 on page 13 gives information on the availability of the tract specific documents. Their availability was also discussed at the EIS scoping meeting of February 1, 1983. There was also a summary matrix of tract specific data related to tract ranking factors and summary matrices for each tract provided at the scoping meeting.

Comment (3): In many instances in the DEIS environmental mitigation measures were discussed by referring to regulations implementing the Surface Mining Control and Reclamation Act (SMCRA). The assumption was made that these regulations are adequate to address the impacts of concern. However, in more than one case the SMCRA regulation referenced had been suspended. This is misleading and hinders any evaluation of the proposed mitigation. In this regard, the Final EIS should reflect current SMCRA regulations and actual mitigation measures BLM will require of lease holders.

Response (3): The comments attached to the comment cover letter contain two references to regulations that have been "suspended". These comments are answered separately and "final" regulations are referenced. Since the regulations have been subjected to a separate public and environmental review process, it would be beyond the purview of EIS-II to assess the "adequacy" of the SMCRA regulations.

Comment (4): Pages 41, 49, and 56, Groundwater. These sections refer to a Table 4-1 which was located on page 127 at the end of the Net Energy Analysis Section of Chapter 4. This table would be more appropriately placed near the discussions it was intended to support.

Response (4): Noted. An attempt was made to move all full-page tables to the end of each chapter.

Comment (5): In discussing the impacts on groundwater, very little information about the water supply wells which will be destroyed or impaired by mining activities is given.

Response (5): We believe that adequate information is provided in the following: Table 4-1 lists the estimated number of wells possibly destroyed or impaired on a tract-by-tract basis and by Alternatives. Figure D-1 shows the percentage of wells at various depths in the existing environment. The technical appendix contains information on 253 wells with ranges in physical properties and chemical constituents. The Site Specific Analysis Reports give information on well depths in the particular tracts and the depths of the coal seams to be leased in each tract.

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Comment (6): Are these wells being used by people who will be displaced by mining activities? If not, the issue here is how many people will potentially lose their water supply? This question should be answered in the Final EIS.

Response (6): Table 4-1 lists the estimated number of wells that may be destroyed or impacted.

Comment (7): A similar question that should also be addressed in the Final EIS is how many of the total wells disrupted will be disrupted by surface mining versus underground mining.

Response (7): Table 4-1 (page 128, Vol. I) lists on a tract-by-tract basis the estimated number of wells that may be destroyed or impacted. Table 4-19 (page 126) shows the type of mining by tract. The total estimated number of wells that may be destroyed or impaired by underground mines is 205 for Alternative III (Preferred Alternative).

Comment (8): A 1980 Court decision (45 FR 51549) struck down the SMCRA regulation that required the replacement of water supplies disrupted by underground mining. In this regard, we believe mitigation measures for water supplies interrupted or contaminated from either surface or underground mining need to be developed in the Final EIS. These mitigation measures should clearly delineate responsibility for replacing destroyed water supplies.

Response (8): Alabama Surface Mining Commission Regulations state the following:

Section 817.41 - "Underground mining shall be planned and conducted to minimize changes to the prevailing hydrologic balance in both the permit area and off-site areas to prevent long-term adverse changes in that balance that could result from those activities. "

Section 817.51 - "Monitoring shall be adequate to plan for modification of the underground activities if necessary to minimize disturbance to the prevailing hydrologic balance."

Section 817.124 - "Each person who conducts underground mining which results in subsidence that causes material damage or reduces the value or reasonably foreseeable use of the surface lands shall, with respect to each surface area affected by subsidence --

(1) Restore, rehabilitate, or remove and replace each damaged structure, feature or value, promptly after the damage is suffered, to the condition it would be in if no subsidence had occurred and restore the land to a condition capable of supporting reasonably foreseeable uses it was capable of supporting before subsidence;"

(2) Purchase the damaged structure or feature for its fair market, pre-subsidence value and shall promptly after subsidence occurs, to the extent technologically and



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economically feasible, restore the land surface to a condition capable and appropriate of supporting the purchased structure, and other foreseeable uses it was capable of supporting before mining. Nothing in this paragraph shall be deemed to grant or authorize an exercise of the power of condemnation or the right of eminent domain by any person engaged in underground mining activities."

We believe that the regulations above and the SMCRA regulations (30 CFR 816.54 and 817.54) adequately mitigate the probable impacts from underground mining and provide for replacement by the responsible mining company of any nearby domestic or stockwater wells significantly affected by surface mining.

Additionally, the Site Specific Analysis Reports show that the underground coal seams to be mined are generally several hundred feet below the water producing zones of existing wells and these wells are not likely to be impacted. Table 4-1 lists all wells in or near the tracts that could possibly be impacted. Figure D-1 shows that most wells (90 percent) are 250 feet or less in depth in the existing environment. Page 43 lists the depths of coal seams for the underground mines: Blue Creek (400-1,100 feet), Cripple Creek (600-1,100 feet), and Sandtown (400-850 feet).

Comment (9): Page 22, (Table 2-1). For surface water quality, Table 2-3 referenced under Alternative 1 is actually a table of mineral resource values for Alternative 2 (page 40). Tables 2-6, 2-8, and 2-10 referenced under the other alternatives could not be located.

Response (9): The tables were incorrectly labeled. They have been changed from 2-3 to 4-3, 2-6 to 4-4, 2-8 to 4-5, and 2-10 to 4-6 (see Appendix C, Vol. II).

Comment (10): Page C-1, (Appendix C). Table 2-8 referred to in Appendix C could not be located.

Response (10): Table 2-8 is renumbered to Table 4-5 (see Appendix C, Vol. II).

Comment (11): Page 22, (Table 2-1). This table shows the impact on surface water-quality from Alternative 1 (No Action) to be the greatest of all the alternatives. For comparison purposes this is extremely misleading, making it appear that new leasing will have less impact on water quality than no new leasing. The rationale supporting this summary conclusion should be discussed in the Final EIS.

Response (11): The amount of coal mined is determined by market demand. Federal leasing tends to spread the mining activities over a larger area which reduces concentrated mining in any particular watershed. Federal leasing also makes available more opportunities for underground mining which generally has less impact on surface water quality.

Comment (12): Page 67, Water Resources. In this section there was no description of the current water quality uses for the major streams in the proposed lease area.

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Response (12): Stream classifications for streams are given in the Site-Specific Analysis Reports.

Comment (13): Are any streams designated as critical habitat for any endangered species?

Response (13): No.

Comment (14): Are there trout streams in the lease areas?

Response (14): No.

Comment (15): The water resources section should focus on whether there are any water resources in the proposed lease area (other than public water supplies) that deserve special protection.

This should be corrected in the Final EIS.

Response (15): Comment noted. The water resources in the area are protected adequately by existing regulations.

Comment (16): General Comment. Recent changes in the Office of Surface Mining (OSM) regulations (CFR 816.57) have removed the 100 foot buffer strip requirement from intermittent streams draining a watershed of less than one square mile. Our experience has shown these intermittent streams are important habitat areas for a diverse array of fish, reptiles, and aquatic invertebrates including species of limited distribution. Accordingly, in our review of Section 404 permits we have consistently opposed stream diversion and channel filling of small intermittent streams. We have also consistently supported the U.S. Fish and Wildlife Service (USFWS) in their effort to mitigate wetland and aquatic losses resulting from surface mining activities. Considering the above, we believe that the Final EIS should discuss the impacts of the different leasing alternatives on intermittent streams and should develop site specific measures to reduce these impacts.

Response (16): This comment is in error. The Federal Register, June 30, 1983, gives the following:

"CFR 816.57 Hydrologic balance: Stream buffer zones. (a) No land within 100 feet of a perennial stream or an intermittent stream shall be disturbed by surface mining activities . . . ."

This is the final rule for Permanent Program Performance Standards.

It should be noted that the Fish and Wildlife Service, which has jurisdiction and expertise in the protection of wetlands, actively participated on the Regional Coal Team and assisted in preparation of the EIS.

Comment (17): Page 103, Impacts on Lake Tuscaloosa and Appendix B, Hydrologic Summary - Lake Tuscaloosa. These sections address mitigative measures to reduce the impacts of surface mining on Lake Tuscaloosa, a public water supply reservoir, by citing the standard NPDES permit limits for discharge from a settling basin. This seems insufficient. We believe additional measures, such as increased water quality monitoring, buffer strips, etc., need to be developed in the Final EIS.

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Response (17): Figure B-1 shows 15 sampling sites on Lake Tuscaloosa and its tributaries. The Technical Appendix lists part of the data collected on the lake. No surface tracts drain directly into Lake Tuscaloosa or even into North River. Crabbe Road, the nearest surface tract to the lake, is approximately 15 stream miles away from Lake Tuscaloosa. Buffer strips are required by CFR 816.57.

Comment (18): General Comment. Federal regulations implementing the SMCRA regarding protection of both surface and groundwaters are complex, and because of numerous changes are somewhat untested. In many areas, design criteria has been replaced with performance standards. Additionally, the various states administering the programs have the flexibility of requiring additional data, monitoring, etc. if the Probable Hydrologic Consequences (PHC) report indicates potentially significant impacts to either surface or groundwater resources. Thus, if the regulations in place are administered and enforced properly, and the technical expertise is available for review of permit applications, many of the impacts to water quality and water quantity described in this DEIS should not occur. In this regard, the Final EIS should include a discussion of the surface mining regulations Alabama operates under, and how they will reduce anticipated groundwater and surface water impacts.

Response (18): Comment noted. The response to Comment (3) addresses the issue of "adequacy" of regulations; and the surface mining regulations in Alabama are referenced and/or discussed in the responses to numerous comments, as well as in EIS-II.

Comment (19): Page 95. According to a study by Evans and Cooper (1981), the major contribution to Total Suspended Particulates (TSP) in the United States comes from fugitive dust sources, with fugitive dust from unpaved roads being the major source of TSP emissions.

In this regard, the air quality analysis in the DEIS is inadequate in that it discusses the air quality impacts of the various alternatives on the regional Federal air standards instead of the microscale air quality impacts from coal trucks on unpaved roads. This latter approach would more closely resemble a "worse case" analysis. It also seems prudent to assess the air quality impacts to sensitive receptors along unpaved haul routes. Members of my staff would be happy to help develop a "worst case" analysis and select sensitive receptors to be studied.

Response (19): Page 96: "Unavoidable Adverse Impacts" and "Committed Mitigation" sections provide the requested information. Under "Unavoidable Adverse Impacts", a worst case scenario covering TSP in mined areas is presented. The maximum TSP figure given in the text takes into account all fugitive dust around the mine site and along spur roads.

Under "Committed Mitigation", an outline of control measures is present. Items covered are: periodic watering, chemical

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stabilization or paving of unpaved roads, removal of dust-forming debris from roads, and restricting the speed of, or limiting vehicular access to, certain roads.

Comment (20): Page 40, Mineral Resources. The following statement is made under Alternative 2 and referenced in Alternatives 3 and 4. "An undetermined amount of coal-related natural gas present in the Mary Lee-Blue Creek coal seams would be lost through the mining of Cripple Creek and Blue Creek tracts." This raises two separate issues of concern. First, coal bed methanization is a relatively new industry which is developing rapidly in this area. Once a coal seam is mined, methane is irretrievably lost. However, the coal seam can be degasified first, then the coal mined. Estimates from the Geologic Survey of Alabama are that for each ton of coal there may be anywhere from 200-600 cubic feet of methane. Extrapolating from this indicates an estimated 1 trillion cubic feet of natural gas in the Mary Lee formation. To this end an economic impact analysis for the loss of this resource should be included in the Final EIS, as well as a clarification of the ownership rights to the natural gas. Second, if coal leasing rights include natural gas rights and commercial methanization is a possibility, disposal of recovery brine is a severe environmental problem and should be addressed in the Final EIS.

Response (20): The comments of the Environmental Protection Agency (EPA) concerning the degasification of the Mary Lee-Blue Creek coal seams in the Blue Creek and Cripple Creek Tracts were considered. Coal bed methanization is indeed a new and rapidly developing industry, about which there is a paucity of information.

The Alabama Geological Survey estimates of 200-600 feet of methane per ton of coal, quoted in EPA's comments, should be considered the upper limits for methane content in the subject coal seams, depending on depth. The U.S. Bureau of Mines (USBM) has reported that Mary Lee Group methane content for 500 to 1,000 feet of overburden is on the order of 64-240 cubic feet per ton of coal. Further, USBM estimates that only eleven percentile of the total methane content of the Mary Lee Group is contained in the seams down to 1,000 feet of overburden. The two tracts in question are in the neighborhood of 1,000 feet depth. Further, the low volatile coals produce the greatest quantities of methane (Mineral Resources Institute). The coal of the two tracts are considered to be high volatile. In summation, methane is to be expected to occur in the Blue Creek and Cripple Creek Tracts; however, the concentrations of methane may be considerably less than is thought to occur using basin-wide generalizations.

A new method of coal degasification is presently being used in a longwall mining operation in the Black Warrior Basin. That is, recovering gas ahead of mining and then extracting the methane from the "gob" (mined out rock rubble area, behind the long wall mining). Gas production from some "gob" wells is several times

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that for the average pre-mining well. Therefore, while it is true, as stated on page 40 of the EIS that an undetermined amount of gas will be lost, the industry is making every effort to maximize recovery.

Chloride concentration in recovery water from methane wells is site specific. At the present time recovery brine does not present a problem to the two companies producing methane from their mines. In some cases chemical testing shows well recovery water to be potable. No cases of harmful water has been reported from Alabama methane wells, as has been encountered in other locations in the United States. Proposed brine disposal regulations are presently being prepared for submission to the Alabama Oil and Gas Board. (Sources: Black Warrior Methane and Alabama Mineral Resource Institute).

Finally, a Department of Interior Solicitor's opinion (M-36935, May 12, 1981) found that methane goes with the oil and gas owner. Development of any commercial gas deposits in the coal would depend on studies conducted by the industry.

Comment (21): Page 112, (Table 4-10). Do any of the "good" soils proposed for disturbance constitute prime agricultural lands? If so, have any lease stipulations, including special reclamation plans, been considered?

Response (21): There are no prime or unique farmlands proposed for surface disturbance due to mining.

Comment (22): Page 124. The DEIS gives an excellent explanation of how the volume to capacity (V/C) ratios were computed from existing ADT information. However, the failure to include indirect trips (i.e., employee work trips, etc.) and the failure of the analysis to consider current road conditions appears to lend some doubt to the projections in Table 4-17. This should be addressed in the Final EIS.

Response (22): Even with a lack of data, a projection in the ADT figures was made. An increase of .6 percent was used to project the increase in commuter traffic. This should be more than adequate to cover normal traffic increases plus those increases as a result of mine employee trips.

Current road conditions, as far as hourly capacities, are also projected in the formula, starting with a known baseline figure then projecting up from there.

Road conditions, as they relate to the road surface, fall under state and county maintenance plans. Revenue associated with the coal industry will provide the needed cash flow necessary for road upkeep. Present conditions are adequate and should remain so.

Comment (23): Pages 37 and 123-124. Under any of the alternatives, mining could conceivably occur until 2010 or later. However, adequacy of the transportation systems was projected only until

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1995 for road systems and railroads and until 2000 for waterways. In this regard, the Final EIS should project transportation needs to the same time horizon as the mining horizon.

Response (23): The projection figure (year 2000) was used in a previous BLM publication and was used only as back-up information. For this EIS we used the year 1995 as our goal or peak level projection. This figure (1995) is more attainable for future projections with fewer possibilities of drastic market and/or industrial change.

Comment (24): Page 111, Surface Owner Consideration. The DEIS notes that two surface owners have submitted statements of refusal to consent to surface mining, involving total mineable acreage of approximately 54 acres. However, the DEIS dismisses the owners as being unqualified under SMCRA regulations. We believe these owners should be given more attention in the Final EIS. First, maps showing the 54 acres in question and how this acreage relates to the lease tracts under consideration should be provided. Second, since we believe there are other legitimate land uses besides those which qualify a landowner under Section 714 of SMCRA, consideration should be given to omitting these areas from the proposed tracts to be leased. Third, since as the DEIS states, surface owner consent is not needed for underground mining, are any of these areas to be underground mined? If they are, it would seem prudent to develop a mitigation plan in the form of lease stipulations to replace any drinking water wells contaminated or destroyed.

Response (24): The law requires that the Bureau utilize the SMCRA definition of a qualified surface owner. The majority of the acreage delineated as tracts for EIS-II is owned by "qualified" surface owners. Of the 5,200 acres of Federally-owned minerals delineated for EIS-II, only the 54 acres identified above are located under surface owned by companies or individuals defined as not "qualified" who signed statements of refusal to consent. The acreages were mapped and the list of surface owners compiled for each tract for use in the site-specific analyses. This data is available from the Jackson District Office, BLM.

The last two sentences of the comment appear to question the protection afforded surface owners defined as not "qualified". To clarify this matter, all surface owners, whether defined as "qualified" or not, are afforded the same protection through mitigation. Therefore the state regulatory agency does not replace these surface owner's wells also. (See response to comment 8, above.)

Comment (25): Page 107-108, Other Mitigating Measures. In this section a discussion on riparian ecosystems and their national and regional significance is provided. A recommendation to use "Best Technology Currently Available" to reestablish riparian ecosystems of similar or equal value is made. However, on page 4 in the DEIS, the following statement is made, "Based on the lack of demonstrated reclamation technology for reestablishing a similar riparian or

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bottomland forest vegetation condition, any surface mining through these vegetation types would result in their long-term and irreversible loss." These two statements appear to be in conflict and should be clarified in the Final EIS.

Response (25): Recommended reclamation techniques using "Best Technology Currently Available" to reestablish ecosystems of similar value do exist; however, no demonstratable reclamation "success" criteria are established. Restoration of bottomland and riparian ecosystems to the exact species composition, distribution, and other ecosystem parameters does not exist. Clarification is provided through rewording; see appendix C (Vol. II).

### Number 25 - United States Steel Corporation

Comment: As holder of an existing Federal lease of underground coal, USSC is concerned about the proposed "overlap" of the Sandtown Tract in the Pratt seam and our leased North Rock Springs Church Tract in the Mary Lee seam group. USSC is all too familiar with the problems inherent to multi-layered, individual seam control and recommends strongly against a Federal leasing program which results in such divided control. They recommend reconfiguration of the Sandtown Tract to take out the overlap acreage.

Response: After consultation with Mine Safety and Health Administration (MSHA) and U.S. Bureau of Mines (USBM) personnel the following points are recognized:

a. Coordination in the placement of vent shafts and roof supports will be necessary.

b. It would be preferable that the top seam be mined first. However, mining the bottom seam first would not preclude mining of the top seam.

c. If the mining method on the lower seam is to be longwall, the recoverability of the top seam could be affected.

d. Due to the 500 feet of competent sandstone interburden separating the two coal seams, these potential problems could be technically controllable.

e. Since existing regulations require exploratory drilling and mining plans, authorized agencies will be able to coordinate lease activities and further reduce potential problems.

Redelineation of the Sandtown Tract to eliminate the 960 acres of overlap would involve offering the acreage competitively at a later date. This action would not assure success to any lessee of the Sandtown Tract in any future bidding on the subject 960 acres. If the overlapping acreage is not leased by the same operator, then the coal may never be mined. The overlapping acreage represents an estimated three million tons or more of coal.

### Number 26 - U.S. Department of Interior, National Park Service

Comment: We have reviewed the subject statement and believe that it appropriately addresses areas over which we have jurisdiction and special expertise.

Response: Comment noted.

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Number 27 - U.S. Department of the Army, Corps of Engineers

Comment (1): Was the DEIS developed in accordance with the Fish and Wildlife Coordination Act of 1958 or is a Coordination Act Report being prepared?

Response (1): The stipulations for a Coordination Act Report (CAR) referred to above directly relate to Corps of Engineers "404" permits for dredge and fill operations. The EIS addresses the coal leasing program and refers to the appropriate regulatory agencies, statutes, and performance standards. If dredge and fill operations are undertaken in the mining operation, a permit will be required by law and, at the discretion of USFWS, a CAR may be required.

Comment (2): Are any of the streams in the area channelized, rerouted, or encroached upon by the proposed action?

Response (2): No.

Comment (3): The "Environmental Consequences" section of the DEIS is deficient in that it is not believed that adequate information is presented so that a reader or decisionmaker may form an accurate opinion as to the probable impacts resulting from the proposed action. (The water quality section is cited as an example.)

Response (3): We believe that the Environmental Consequences section of EIS is adequate in its present form, especially since supplementary hydrologic data for assessing probable impacts from the proposed action is contained in Appendices A, B, and C and the Technical Appendix. The only hydrologic changes for which sufficient data are available to quantitatively predict degrees of change are increased mineralization of surface water and changes in precipitation runoff resulting from surface mining. The magnitude of most other changes cannot be accurately estimated prior to actual mining.

Comment (4): Takes exception with the fact that the DEIS relies upon state and Federal water quality statutes to mitigate "adverse consequences". Also, the discussion in the DEIS should include a discussion of "episodic climatic events" and "resulting impacts by individual area". (Requested is a "worst case" analysis by each area.)

Response (4): The regulations implementing SMRCA protection of surface and groundwater have been supplemented by performance standards. Additionally, the Alabama Surface Mining Commission has the flexibility of requiring additional data and monitoring if Probable Hydrologic Consequences projections indicate potentially significant impacts. Therefore, if these regulations are in place and enforced, most of the water quality and other hydrologic impacts described in the EIS will be minimized. Additionally, the site-specific analyses contained in Chapter 1 represent "worst case" projected hydrologic impacts.



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### Number 28 - Tennessee Valley Authority

Comment (1): Page 32, Changes in Groundwater Quality: Line 7 refers to Table D-2 in Appendix D, but there is no such table in Appendix D.

Response (1): "See table D-2, app. D" should read "see figure D-2, app. D".

Comment (2): Page 32, Degradation of Water Quality: Line 6 refers to Table D-1 in Appendix D, but there is no such table in Appendix D. This reference is repeated on page 33 and page 101.

Response (2): "See table D-1, app. D" should read "see figure D-1, app. D".

Comment (3): Page 33, first complete paragraph: It is unclear as to how pH, iron, and manganese in mine drainage are attenuated through "chemical constituent concentrations and diversion channels". We suggest the sentence be revised to read: ". . . are attenuated as necessary to meet effluent limitations by physical and chemical treatment."

Response (3): We acknowledge this suggestion and are in agreement. Comment will be incorporated in Appendix C (Vol. II).

Comment (4): Page 38, last two lines: Change "annual TSP standard to "existing TSP standards." All TSP standards should be addressed.

Response (4): See response to Comment (7), below.

Comment (5): Page 41, first line: It is unclear why waste rock accumulations would create an "aquifer". Waste rock from subsurface mining is typically disposed of on the existing surface above any water table. The words "an aquifer" should be replaced by "leachate."

Response (5): Surface mining will remove large segments of the Pottsville Formation and, in many areas, will disrupt Pottsville aquifers. These segments will be replaced by broken spoil material that will become spoil aquifers. Spoil aquifers may be created where no Pottsville aquifer occurred. Based on available U.S.G.S. information, spoil aquifers are expected to store and transmit larger quantities of water than the original aquifers. (Puente and Others, 1982)

Comment (6): Page 49, Air Quality, third line: Add "and along vehicle trafficways" to the sentence ending with "operations".

Response (6): The primary impact of air resources would be a temporary, highly localized increase in fugitive TSP concentrations in the immediate vicinity of the mining and reclamation operation. "Immediate vicinity" covers the spur access roads.

Comment (7): Page 52, Air Quality: We suggest the following statement be added. "The same mitigation measures as Alternative Three are applicable." Also, in line 4 and 5 replace "annual TSP . . . standard" with "existing TSP . . . standards."

Response (7): The lead-in sentence on page 52 under Air Quality, "The impacts are essentially the same as those discussed under Alternative Three.", acts as the referral statement to Alternative Three. The term "annual TSP standards" was used by the contracting

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groups and as a result incorporated in the DEIS document. It was also used in the EPA publications referenced. We were under the understanding that the term "annual TSP standards" incorporated the term "existing TSP standards".

Comment (8): Page 64, Air Quality, second paragraph: SO<sub>2</sub> and CO are not mentioned. The ending of the last sentence should read:  
". . . for O<sub>3</sub>, SO<sub>2</sub>, and CO."

Response (8): Comment noted.

Comment (9): Page 64, Air Quality, fourth paragraph: In the first sentence the use of the term "allowable levels" confuses standards with PSD increments. Also, there is a duplication of pollutant terms and a missing word. We believe the sentence should read:  
"Maximum SO<sub>2</sub> concentrations monitored in and near the EIS area are approximately 30 percent of the standards." Also, the applicability of the 30 percent figure to each of the standards be verified.

Response (9): The word are was left out of the first sentence in the fourth paragraph on page 64.

The 30 percent figure only relates to the SO<sub>2</sub> concentrations. Nitrogen dioxide, carbon monoxide, ozone, and hydrocarbon concentrations were not monitored in the EIS area.

Comment (10): Page 95, Air Quality, second paragraph: In the first sentence, delete "PSD (prevention of significant air quality deterioration)" and insert "total suspended particulates". In the fourth and ninth lines, delete "allowable".

Response (10): The first sentence should read: "The 1982 annual ambient TSP (total suspended particulates) . . .". In the fourth and ninth lines, the word "allowable" was used by the contracting corporation (Radian Corporation) in their descriptions.

Comment (11): Page 95, Air Quality, information about 24-hour TSP concentrations and modeled maximum impacts from mining and related activities should be presented for technical completeness.

Furthermore, a specific statement about potential for impacts on the Sipsey Wilderness Class I area would be useful.

Response (11): The information concerning "24-hour TSP concentrations and modeled maximum impacts from mining and related activities" was presented by the contracting corporations. To the best of our knowledge, this information was the best available. Several other agencies and individuals have reviewed this material with a "No comment" statement as their result.

Page 64, fifth paragraph, "Sipsey Wilderness". Distance from the proposed mining areas precludes possible adverse impacts.

Comment (12): Page 96, third and fourth lines: This sentence should be expanded to clarify whether this nonviolation conclusion is based on predicted impacts without mitigation on predicted impacts with mitigation.

Response (12): Comment is incorporated. See page 96, "Unavoidable Adverse Impacts", "A 'worst case' scenario . . .".

## SOUTHERN APPALACHIAN REGION

Comment (13): Page 96, Committed Mitigation: This paragraph is unclear and we suggest the following revision:

OSM regulations at 30 CFR Sections 816.95 and 817.95 contain specific fugitive dust control measures. Fugitive dust control measures must be approved by the regulatory authority in order to conduct as site preparation, coal mining, and reclamation operations. Specific dust control measures which may be used, depending upon circumstance, include periodic watering, chemical stabilization or paving of unpaved roads, removal of dust-forming debris from roads, restricting vehicle speed or limiting vehicular access to certain roads, and revegetation.

Also on page 96, with regard to mitigation of TSP impacts, consideration should be given to actions for preventing trucks from spreading materials (dust, mud or slime) on off-tract roadways which could be resuspended by subsequent traffic.

Response (13): Page 96, Committed Mitigation, sixth line, "removal of dust-forming debris from road;". This information should cover your proposed statement and concerns.

Comment (14): Page 106, Vegetation: We suggest adding a statement addressing the extent of impacts to wetlands.

Response (14): We acknowledge this comment. Based on table 4-8, the total acreage of riparian ecosystems removed by Alternatives One, Two, Three, and Four is as follows:

Alternative One	6,630 acres
Alternative Two	25 acres
Alternative Three	45 acres
Alternative Four	45 acres

Generally, riparian ecosystems comprise less than one percent of any given delineated tract.

Comment (15): The TVA reviewed the DEIS and "believe that the Bureau has presented a comprehensive discussion of reasonable alternatives and associated impacts."

Response (15): Comment noted.

### Number 29 - Alabama Coal Association

Comment: "I would like to go on record with you that I feel the study (DEIS) was very well done by your people. It is very important to our people in the mining industry, the people of Alabama, and the people of our great country, that the Department of Interior continue with its aggressive coal leasing program. If this country is to ever attain our national energy goals the federal government must allow its minerals to be extracted by the private sector."

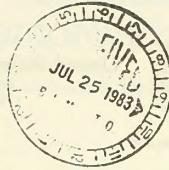
Response: Comment noted.

**APPENDIX A**

**REPRINT OF COMMENT LETTERS**

1

ARK LAND COMPANY  
500 NORTH BROADWAY  
ST. LOUIS, MISSOURI 63102



TELEPHONE  
(314) 831-1010

July 20, 1983

Bob Todd  
Project Office Manager--Tuscaloosa Office  
Bureau of Land Management  
Tuscaloosa, Alabama

Dear Mr. Todd:

Ark Land Company is the owner of record of surface interest in real property over Federal Government owned coal in the Lockart Hill Area of Walker County. This letter is an expression of interest in having the coal under the land mined. Ark Land Company is a landowner in Lockart Hill Area and would very much support and consent to mining on or near its property.

Sincerely,  
*Robert T. Crowe*  
Robert T. Crowe  
Land Agent  
Ark Land Company

2



ERNEST A. MANCINI  
State Geologist  
and  
Oil and Gas Supervisor

GEOLOGICAL SURVEY OF ALABAMA

P. O. Drawer O  
University, Alabama 35486  
(205) 349-2852

ADMINISTRATIVE DIRECTORS

- R. C. Baggettson, Budget
- J. A. Carey, Attorney
- C. W. Copeland, Jr., Geology
- T. L. Heathery, Programs
- W. E. Smith, Technical Operations
- G. W. Swindell, Jr., Services

DIVISIONS

- T. W. Daniel, Jr., Energy Resources
- N. A. Lloyd, Geochronology - Water Laboratory
- M. F. Meritts, Environmental
- J. O. Moore, Water Resources
- T. V. Stone, Publications
- M. W. Szabo, Mineral Resources

June 29, 1983

Mr. Robert L. Todd, Director  
Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson Suite 3495  
Jackson, MS 39213

Dear Bob:

This is to compliment you and your agency on the preparation of an excellent draft EIS for the Southern Appalachian Coal Region. We feel that the draft addresses issues and provides reasonable discussion. If we can be of service to any BLM effort, please let us know.

Sincerely yours,

*Ernest A. Mancini*  
W. Everett Smith  
Assistant State Geologist  
for Technical Operations

let

AN EQUAL OPPORTUNITY EMPLOYER  
Geological Research--Key to Alabama's Future

3

THE UNIVERSITY OF ALABAMA  
COLLEGE OF ARTS AND SCIENCES  
PHONE: (205) 271-2284

July 5, 1983

1 MOUND STATE MONUMENT  
MOUNDVILLE, ALABAMA 36744

ARCHAEOLOGICAL RESEARCH

Edwin L. Roberson  
Assistant EIS Team Leader  
Bureau of Land Management  
518 19th Avenue  
Tuscaloosa, Alabama 35401

RE: 1792 (010)

Gentlemen:

I have reviewed Southern Appalachian Coal Region Draft Environmental Impact Statement-II (DEIS) from a cultural resources perspective. I find that the comments concerning proposed treatment of cultural resource to be informative and logical. I have no problem with any of the proposed procedures governing cultural resource policies.

I would like to receive a copy of the ACHP's publication entitled, "Treatment of Archaeological Properties: A Handbook" (November 1980) as described on Page 115 of the draft report. Also, the receipt of BLM Guidelines, Regulations and other pertinent federal and state legislation pertaining to cultural resources and BLM properties would also be most helpful.

Sincerely,

*Carey B. Oakley*

Carey B. Oakley, Director  
Office of Archaeological Research

CBO:kw  
CBO04/R,1

4.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
EASTERN AREA OFFICE  
1951 Constitution Avenue NW,  
Washington, D.C. 20245

IN REPLY REFER TO:

Memorandum

To: Bureau of Land Management, Tuscaloosa Office  
Attn: E. L. Roberson

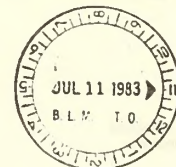
From: Acting Area Director, Eastern Area

Subject: DEIS - Southern Appalachian Coal Region II

The Bureau of Indian Affairs has reviewed the subject document. There are no Federal Indian trust lands in the State of Alabama therefore there are no impacts on any interests of this Bureau.

Since the entire area was used by various historic and pre-historic Indian groups we are pleased that the Programmatic Memorandum of Agreement will be used and that inventories will be conducted prior to approval of mining plans.

*Thomas J. Bond*  
Thomas J. Bond  
Acting Area Director  
Eastern Area Office



5



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Tuscaloosa Office  
518 19th Avenue  
Tuscaloosa, Alabama 35401

IN REPLY REFER TO  
1792 (010)

MEMORANDUM  
To: Reviewing Agencies  
From: Assistant EIS Team Leader  
Subject: Transmittal of Draft Environmental Impact Statement (DEIS)

In accordance with the intent of the National Environmental Policy Act of 1969, and related regulations and guidelines, I have enclosed a copy (or copies) of the Southern Appalachian Coal Region DEIS - 11. The statement analyzes the impacts of Federal coal leasing in a 3-county area of Alabama. It was prepared by the Eastern States Office of the Bureau of Land Management.

The attached cover letter gives details concerning the review and comment period, and the public hearing on the DEIS. Also given are contacts who can answer any questions you may have.

*Elmer L. Johnson*

NO COMMENT RESPONSE

EASTERN FIELD OPERATIONS CENTER  
BUREAU OF MINES

*Paul J. Johnson 7/14/83*

6



United States Department of the Interior

OFFICE OF SURFACE MINING  
Reclamation and Enforcement

Eastern Technical Center  
Ten Parkway Center  
Pittsburgh, PA 15220

EKA/EJS:dnd

July 15, 1983

Memorandum

To: Mr. Jack Hill, Hydrologist  
Bureau of Land Management  
Tuscaloosa, Alabama  
From: Raymond Schwartz  
Mine Plan Review Branch  
Subject: Technical Appendix; Southern Appalachian Regional Coal EIS 11  
"Hydrology of the Existing Environment", Warrior Coal Basin, Alabama

The above referenced Appendix has been reviewed by this office with the following statements and/or comments or questions.

1. The baseline data appears sufficient (112 surface monitoring sites; and 253 wells). This data will prove most beneficial for those individuals performing probable hydrologic consequences (PHC) and cumulative hydrologic impact analysis.
2. The appendix indicated the data was collected from 1976 - 1983; is data collection still on-going?
3. Why wasn't pH included as one of the excellent indicators of mine drainage?
4. Is there any way to tell from the data collected or the monitoring sections which samples are indicative of mined vs. unmined drainages?
5. This technical appendix referred to figure D-2 (flow duration curve for appraising discharge characteristics of a stream before and after mining) and Appendix C (showing stream flow characteristics and methods used in determining them) - neither of these referenced papers were included in this submittal.

Technical Appendix, Warrior Coal Basin, AL  
Page 2  
July 15, 1983

6. Appendix D, Table 1 indicated five (5) surface water quality monitoring stations with 0.0 flow; however, chemical analysis was provided. Where did the analysis come from? That point should be addressed or clarified.

*Raymond J. Schwartz*  
Raymond J. Schwartz

7

Advisory  
Council On  
Historic  
Preservation

1522 K Street, NW  
Washington, DC 20005

JUL 21 1983

Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson  
Suite 3495  
Jackson, MS 39213

Dear Sir:

We have received your request for comments on the draft environmental impact statement (EIS) for the Southern Appalachian Coal Region - II pursuant to Section 102 (2)(c) of the National Environmental Policy Act of 1969. After review of this document, we have determined that it does not appear to contain adequate provisions for the consideration of historic properties in any coal leasing.

The draft EIS indicates that, although the tracts being considered for lease have not been inspected to identify historic and archeological properties, all leases will contain provisions requiring survey to identify such properties on lands to be impacted by coal operations. However the EIS does not relate what treatment, if any, will be provided if historic properties are identified. In accordance with the Programmatic Memorandum of Agreement for the Federal Coal Program and the Council's regulations (36 CFR Part 800), if any historic properties are identified, BLM should ensure a consideration of their values, involving consultation with the Alabama State Historic Preservation Officer and, if necessary, requesting the comments of the Council. With provisions such as these, planning for this round of coal leasing in the Southern Appalachian Coal Region would adequately address historic properties.

If we can be of any assistance in this matter, please contact this office at (202) 254-3495.

Sincerely,

*Don L. Klima*  
Don L. Klima  
Chief, Eastern Division  
of Project Review

UNITED STATES GOVERNMENT memorandum

DATE July 26, 1983
REPLY TO ATTN OF Field Supervisor, ES, Daphne, AL
SUBJECT: Review of Draft Environmental Impact Statement II for Southern Appalachian Coal Region (EC 83/28)
TO: Director, BLM, Tuscaloosa, AL

In accordance with the Bureau of Land Management notice of May 17, 1983, the Fish and Wildlife Service has reviewed the subject draft environmental impact statement. Our concerns to minimize impacts to fish and wildlife have been covered; we, therefore, have no further comments to make on the proposed leasing activities.

Handwritten signature of Larry E. Goldman

cc: ARD-HR, Atlanta, GA
FWS/EC, Washington, D.C.



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

OPTIONAL FORM NO. 10 (REV. 5-78) GSA FPMR (41 CFR) 101-11.6 5010-112

Form No. 2800

Date August 4, 1983



Edwin L. Roberson
Assistant EIS Team Leader
Bureau of Land Management
518 19th Avenue
Tuscaloosa, Alabama 35401

Dear Mr. Roberson:

As per your request we have reviewed the "Southern Appalachian Coal Region Draft Environmental Impact Statement - II DEIS," and from our perspective, see no impact to the National Forests in Alabama.

All areas addressed in the DEIS lie several miles north of the Oakmulgee Ranger District of the Talladega National Forest and south of the Bankhead National Forest. There are no streams or water sources that drain from the proposed leasing areas that cross National Forest land. Air quality could be affected only locally on a temporary basis.

Thank you for the opportunity to comment on the DEIS.

Sincerely,

JOHN E. ALCOCK
Regional Forester



PS-200-116 (7/79)



Department of Economic & Community Affairs

GEORGE C. WALLACE GOVERNOR

STATE PLANNING DIVISION NED H. BUTLER

August 10, 1983

TO: Mr. Edwin L. Roberson
Environmental Coordinator
U. S. Department of the Interior
Bureau of Land Management
Tuscaloosa Office, 518 19th Avenue
Tuscaloosa, AL 35401
FROM: William M. Rushton, Director
Office of State Planning and Federal Programs
Attention: State Clearinghouse
SUBJECT: DIRECT ENVIRONMENTAL IMPACT STATEMENT
Applicant: U. S. Department of the Interior
Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement



State Clearinghouse Control Number: OSP-023-83

The above Draft Environmental Impact Statement has been reviewed by the appropriate State agencies in accordance with Office of Management and Budget Circular A-95, Revised.

The comments received from the reviewing agencies are etteched.

Please contact us if we may be of further assistance. Correspondence regarding this proposal should refer to the assigned Clearinghouse Number.

If you have any questions regarding this project, please call Donna Snowden, telephone 832-3940.

A-95/06

Attachments

- Agencies contacted for comment:
West AL Planning and Development Council
Birmingham Regional Planning Commission
Conservation & Natural Resources - White Highway Department
Historical Commission
Alabama Office of Employment & Training
Soil & Water Conservation
Geological Survey of Alabama
AL Dept. of Environmental Management
Air Pollution Control Commission
AL Surface Mining Reclamation - Willet
Alabama Department of Energy - Eavan
State Planning - Stevenson

cc: Bureau of Land Management, Jackson Mall Office Center, 300 Woodrow Wilson, Suite 3495, Jackson, MS 39213

REQUEST FOR REVIEW OF PROJECT IMPROVEMENT

Mr. Lewis E. McGray, Director
West AL Planning and Development Council
Number: OSP-023-83

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUL 24, 1983

Return-Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comments: (Blank)

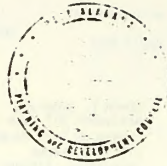
Vertical stamp: JUN 29 1983

Signature

Please return original to:

Office of State Planning and Federal Programs
136 S. Union Street
Montgomery, AL 36130-5601

Office of State Planning & Federal Programs



FROM: Lewis E. Moore  
West Alabama Planning and Development Council  
135 S. Union Street  
Montgomery, AL 36102

SUBJECT: A-95 Summary Recommendations

APPLICANT: U.S. Department of the Interior

PROJECT: Draft Southern Appalachian Regional Coal Draft EIS

DATE OF APPLICATION: FEDERAL DATE: 7/29/83

DATE A-9 COMMENTS FORWARDED BY CLEARINGHOUSE TO APPLICANT: July 29, 1983

The above project has been reviewed by the Regional Clearinghouse, West Alabama Planning and Development Council, in accordance with the Office of Management and Budget Circular A-95, Revised.

The Clearinghouse recommendations are indicated below. This recommendation with attached comments from other agencies, if any, must be included in your application for submission to the appropriate State or Federal agency.

Government Support

COMMENTS:

Additional Comments Attached

Agreement with Conditions (Support only with conditions. Indicate major reservations about the project, and the specific conditions or modifications desired.)

CONDITIONS:

Additional Comments Attached

Non-Government Support (Do not support. Summarize the major reasons for recommending non-support. Include supporting information such as maps, studies, regulations, etc., which substantiate disapproval.)

COMMENTS:

Additional Comments Attached

NO COMMENTS (This should be checked only if you have nothing to say about the project, and you do not wish to be listed as a commenting agency.)

Additional Comments Attached

12

HISTORICAL COMMISSION

REQUEST FOR REVIEW OF PROJECT NOTIFICATION

JUN 29 1983

TO: Mr. F. Lawrence Oaks, Director  
Historical Commission

Number: OSP-023-83

RECEIVED

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment here:

*F. Lawrence Oaks*  
Signature

Please Return Original to:

Office of State Planning  
and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

OSP-023-83

13

REQUEST FOR REVIEW OF PROJECT NOTIFICATION

TO: Mr. James J. Plaster  
Highway Department

Number: OSP-023-83

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment here:

*HAD NOTHING TO REVIEW, THEREFORE, NO COMMENT.*

JUN 30 1983

State Clearinghouse

*James J. Plaster*  
Signature

Please Return Original to:

Office of State Planning  
and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

OSP-023-83

14

REQUEST FOR REVIEW OF PROJECT NOTIFICATION

TO: Mr. James J. Plaster  
Soil & Water Conservation

Number: OSP-023-83

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment here:

Please Return Original to:

Office of State Planning  
and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

*James J. Plaster*  
Signature

36



REQUEST FOR REVIEW OF PROJECT NOTIFICATION

Dr. Mrs. Claude D. McCarney, Assistant Dir. Number: OSP-023-83  
Alabama Office of Employment & Training

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment here:

*[Signature]*  
Signature

Please return original to:

Office of State Planning and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

FORM CI-4  
1/81

REQUEST FOR REVIEW OF PROJECT NOTIFICATION

Dr. Ernest A. Mancini  
Geological Survey of Alabama

Number: OSP-023-83

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment

*[Signature]*  
Signature

Please return original to:

Office of State Planning and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

REQUEST FOR REVIEW OF PROJECT NOTIFICATION

Dr. Mrs. Dick S. Raven, Director Number: OSP-023-83  
Alabama Department of Energy

Applicant: U. S. Department of the Interior

Project: Draft Southern Appalachian Regional Coal Draft Environmental Impact Statement

Date: JUN 24, 1983

Return Prior to: AUG 2, 1983

Please review the attached Environmental Impact Statement and indicate your comment with respect to any environmental impact involved.

Comments: (Please check one block.)

No comment (Environmental Impact Statement is in order and no additional comments are offered.)

Comments (Elaborate below.)

Comment here:

No comments

*[Signature]*  
Signature

Please return original to:

Office of State Planning and Federal Programs  
135 S. Union Street  
Montgomery, AL 36130-5601

FORM CI-4  
1/81

ALABAMA

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

June 30, 1983

MEMORANDUM

TO: Marilyn Elliott  
Permit Coordinator  
Alabama Department of Environmental Management

FROM: Richard E. Grusnick, Chief  
AIR Division  
Alabama Department of Environmental Management

SUBJECT: Review of Southern Appalachian Coal Region EIS

The Southern Appalachian Coal Region EIS and the request for review was sent directly to the Air Division office.

The document has been reviewed by Air Division. The comments are attached.

REG/ARG:dm  
Attachment



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Washington, D.C. 20230  
OFFICE OF THE ADMINISTRATOR

August 16, 1983

AUG 18 1983

Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson MS 39213

Dear Sir:

Enclosed are comments from the National Oceanic and Atmospheric Administration on your draft environmental impact statement for the Southern Appalachian Coal Region.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving two copies of the final environmental impact statement.

Sincerely,

Joyce M. Wood  
Chief  
Ecology and Conservation Division

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEANIC SERVICE  
Washington, D.C. 20230

N/MB2xS:VLS

TO: PP2 - Joyce Wood  
FROM: N - K. E. Taggart *K. E. Taggart*  
SUBJECT: DEIS 8306.20 - Southern Appalachian Coal Region (Leasing Program)  
(Department of the Interior - Bureau of Land Management)

The subject statement has been reviewed within the areas of the National Ocean Service's (NOS) responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, we require not less than 90 days' notification in advance of such activity in order to plan for their relocation. We recommend that funding for this project include the cost of any relocation required for NOS monuments. For further information about these monuments, please contact Mr. John Spencer, Chief, National Geodetic Information Branch (N/CG17), or Mr. Charles Novak, Chief, Network Maintenance Section (N/CG162), at 6001 Executive Boulevard, Rockville, Maryland 20852.

AUG 18 1983



United States Department of Agriculture  
Soil Conservation Service

P. O. Box 311  
Auburn, AL  
36830

AUG 17 1983

Mr. Edwin L. Roberson  
Assistant EIS Team Leader  
Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Dear Mr. Roberson:

The draft Southern Appalachian Regional Coal Environmental Impact Statement II was referred to the Soil Conservation Service for review and comment.

We offer the following comment for your consideration:

The environmental consequences should show the amount, if any, of prime farmland that will be irreversibly affected. If there are no soils within the proposed area that meet the criteria for prime farmland (7 CFR 657) then it should be so stated.

We appreciate the opportunity to review and comment on this environmental impact statement.

Sincerely,

  
Ernest V. Todd  
State Conservationist

United States Department of the Interior

OFFICE OF THE SOLICITOR  
ATLANTA REGIONAL OFFICE  
Richard B. Russell Federal Building  
75 Spring Street, S.W.  
Atlanta, Georgia 30303

IN REPLY REFER TO  
EN 3  
F-83-6-2207  
KRF:bhf

August 19, 1983

Memorandum

To: Assistant EIS Team Leader, Jackson Office  
From: Regional Solicitor, Southeast Region  
Subject: Southern Appalachian Coal Region DEIS - II

- ( ) Subject document has been reviewed and is approved as to form and legal sufficiency.
- ( ) Subject document is satisfactory to this office and returned herewith with surnamed copy as requested.
- ( ) Quitclaim deed for the conveyance of subject property is enclosed.
- (X) Subject document is satisfactory to this office.
- ( ) Claim is (returned) (held) pending additional information.
- (X) Exceptions to the above are listed below (if applicable):

40 C.F.R. § 1502.11(c) requires that the cover sheet include "the name, address and telephone number of the person at the agency who can supply further information". The name should be added to the FEIS.

  
Roger Sumner Babb



U.S. Department of  
Transportation  
Federal Highway  
Administration

Alabama Division Office

441 High Street  
Montgomery, Alabama 36104

August 19, 1983

BY REPLY NUMBER TO:

HEC-AL

U.S. Department of the Interior  
Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Dear Sir:

Subject: Southern Appalachian Coal Region  
Draft Environmental Impact  
Statement (DEIS) - II

Mr. Edwin L. Roberson's letter dated June 24, 1983, transmitted the DEIS for our review and comments.

We have reviewed the DEIS to determine if the proposed action would affect planned or existing highways within the proposed mining area. You should be aware of the proposed Appalachian Development Highway known as Corridor "X". This proposed highway corridor parallels US 78 west of Jasper, crosses US 78 near Jasper and continues to parallel US 78 south of Jasper and eastward toward Jefferson County. Preliminary engineering activities are currently underway on this highway improvement. Any proposed mining activity in this area should be coordinated with the State of Alabama Highway Department.

The DEIS indicates that increased coal hauling activity will have a insignificant impact on the existing highway system in this region. The increased truck volumes may have an insignificant impact on the capacity of the highway facilities, but the increased loads on the pavements may have a significant impact if the existing pavements are not designed to carry these loads. The DEIS should address the effects these loads would have on the roads in this area.

Sincerely yours,

L. N. MacDonald  
Division Administrator

AUG 23 1983



DEPARTMENT OF HEALTH &amp; HUMAN SERVICES

Public Health Service

Centers for Disease Control  
Atlanta GA 30333  
(404) 452-4257  
August 25, 1983

AUG 29 1983

Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Gentlemen:

We have reviewed the Draft Environmental Impact Statement (EIS) for Southern Appalachian Coal Region. We are responding on behalf of the Public Health Service and are offering the following comments for your consideration.

The potential vector problems from mosquito populations on the impoundment ponds and surface water diversions were not addressed. The Final EIS should provide a description of present and anticipated mosquito populations in those areas. What control measures are anticipated? What uses of insecticides, if any, are planned? How will they be applied and in what quantities?

While the Draft EIS states that "impacts to municipal reservoirs . . . would be minimal due to mitigating measures," there will be significant localized effects from the mining operations on ground water supplies. The preferred alternative would destroy or impair 338 wells and disturb 50,106 acres of aquifer. The effects of these losses on human populations is not clear. Will alternative water supplies be made available to residents of the area? It was mentioned that new wells would be drilled at depths of several hundred feet greater than the existing wells. This will result in greater pumping lifts and a need for casing to depths exceeding those of the aquifers which might be prone to recharge from the mine. Who is responsible for provision of these measures to replace existing water supplies?

Will development of these proposed mining tracts require relocation of human populations? If so, what relocation procedures will be followed?

The Final EIS should indicate whether a Corps of Engineers Section 10 and/or 404 Permit is required.

Thank you for the opportunity to review this Draft EIS. Please send us a copy of the final document when it is available. If you have any questions about our comments, please contact Mr. Les Tate at FTS 236-4161.

Sincerely yours,

Frank S. Lisells, Ph.D.  
Chief, Environmental Affairs Group  
Environmental Health Services Division  
Center for Environmental Health



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II  
349 COURTLAND STREET  
ATLANTA, GEORGIA 30365

AUG 21 1983

4PM-EA/JM

Mr. Edwin L. Roberson  
Environmental Coordinator  
Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Dear Mr. Roberson:

We have reviewed the Draft Environmental Impact Statement (DEIS) for the Southern Appalachian Regional Coal Leasing Program, Round II, in Fayette, Tuscaloosa, and Walker Counties, Alabama. Our concerns are basically threefold. These are: (1) the selection and ranking of the various alternative leasing programs; (2) the lack of lease tract specific analysis of the environmental impacts of the various alternatives; and (3) the failure of the Bureau of Land Management (BLM) to include specific mitigation measures as lease stipulations. These concerns are discussed below and in our attached Detailed Comments.

First, in the BLM's first round EIS of coal leasing in Alabama there appears to be more of a conscious attempt to "balance" the optimum amount of coal production that could be absorbed in the regional market against the environmental impacts associated with the various lease tracts. That is, only those tracts that were ranked high in regard to both coal economics and environment were offered for lease. We do not see a corresponding "balancing" of need versus environmental impacts in this current round of proposed leasing.

Second, other than in Table 2-1, very little lease tract specific description of the impacts on the natural environment is given.

Finally, in many instances in the DEIS environmental mitigation measures were discussed by referring to regulations implementing the Surface Mining Control and Reclamation Act (SMCRA). The assumption was made that these regulations are adequate to address the impacts of concern. However, in more than one case the SMCRA regulation referenced had been suspended. This is misleading and hinders any evaluation of the proposed mitigation. In this regard, the Final EIS should reflect current SMCRA regulations and actual mitigation measures BLM will require of lease holders.

-2-

Considering the above, we have rated the Draft EIS LO-2; i.e., we do not believe the proposed action represents a significant impact on the environment, but we are requesting specific additional information be included in the Final EIS.

Sincerely yours,

Sheppard N. Moore, Chief  
Environmental Review Section  
Environmental Assessment Branch

Enclosure

GROUNDWATER

(1) Pages 41, 49 and 56, Groundwater. These sections refer to a Table 4-1 which was located on page 127 at the end of the Net Energy Analysis Section of Chapter 4. This table would be more appropriately placed near the discussions it was intended to support.

(2) General Comment. In discussing the impacts on groundwater, very little information about the water supply wells which will be destroyed or impaired by mining activities is given. Are these wells being used by people who will be displaced by mining activities? If not, the issue here is how many people will potentially lose their water supply? This question should be answered in the Final EIS. A similar question that should also be addressed in the Final EIS is how many of the total wells disrupted will be disrupted by surface mining versus underground mining? The importance of this is that a 1980 Court decision (45FR 51549) struck down the SMCRA regulation that required the replacement of water supplies disrupted by underground mining. In this regard, we believe mitigation measures for water supplies interrupted or contaminated from either surface or underground mining need to be developed in the Final EIS. These mitigation measures should clearly delineate responsibility for replacing destroyed water supplies.

SURFACE WATER

(3) Page 22, (Table 2-1). For surface water quality, Table 2-3 referenced under Alternative 1 is actually a table of mineral resource values for Alternative 2 (page 40). Tables 2-6, 2-8 and 2-10 referenced under the other alternatives could not be located.

(4) Page C-1, (Appendix C). Table 2-8 referred to in Appendix C could not be located.

(5) Page 22, (Table 2-1). This table shows the impact on surface water-quality from Alternative 1 (No Action) to be the greatest of all the alternatives. For comparison purposes this is extremely misleading, making it appear that new leasing will have less impact on water quality than no new leasing. The rationale supporting this summary conclusion should be discussed in the Final EIS.

(6) Page 67, Water Resources. In this section there was no description of the current water quality uses for the major streams in the proposed lease area. Are any streams designated as critical habitat for any endangered species? Are there trout streams in the lease areas? The focus of this section should be are there any water resources in the proposed lease area (other than public water supplies) that deserve special protection? This should be corrected in the Final EIS.

(7) General Comment. Recent changes in the Office of Surface Mining (OSM) regulations (CFR 816.57) have removed the 100 foot buffer strip requirement from intermittent streams draining a water shed of less than one square mile. Our experience has shown these intermittent streams are important habitat areas for a diverse array of fish, reptiles, and aquatic invertebrates including species of limited distribution. Accordingly, in our review of Section 404 permits we have consistently opposed stream diversion and channel filling of small intermittent streams. We have also consistently supported the U.S. Fish and Wildlife Service (USFWS) in their effort to mitigate wetland and aquatic losses resulting from surface mining activities. Considering the above, we believe that the Final EIS should discuss the impacts of the different leasing alternatives on intermittent streams and should develop site specific measures to reduce these impacts.

(8) Page 103, Impacts on Lake Tuscaloosa and Appendix B, Hydrologic Summary - Lake Tuscaloosa. These sections address mitigative measures to reduce the impacts of surface mining on Lake Tuscaloosa, a public water supply reservoir, by citing the standard NPDES permit limits for discharge from a settling basin. This seems insufficient. We believe additional measures, such as increased water quality monitoring, buffer strips, etc., need to be developed in the Final EIS.

(9) General Comment. Federal regulations implementing the SMCRA regarding protection of both surface and groundwaters are complex, and because of numerous changes are somewhat untested. In many areas, design criteria has been replaced with performance standards. Additionally, the various states administering the programs have the flexibility of requiring additional data, monitoring, etc. if the Probable Hydrologic Consequences (PHC) report indicates potentially significant impacts to either surface or groundwater resources. Thus, if the regulations in place are administered and enforced properly, and the technical expertise is available for review of permit applications, many of the impacts to water quality and water quantity described in this DEIS should not occur. In this regard, the Final EIS should include a discussion of the surface mining regulations Alabama operates under, and how they will reduce anticipated groundwater and surface water impacts.

AIR QUALITY

(10) Page 95. According to a study by Evans and Cooper (1981), the major contribution to Total Suspended Particulates (TSP) in the United States comes from fugitive dust sources, with

fugitive dust from unpaved roads being the major source of TSP emissions.

In this regard, the air quality analysis in the DEIS is inadequate in that it discusses the air quality impacts of the various alternatives on the regional Federal air standards instead of the microscale air quality impacts from coal trucks on unpaved roads. This latter approach would more closely resemble a "worst case" analysis. It also seems prudent to assess the air quality impacts to sensitive receptors along unpaved haul routes. Members of my staff would be happy to help develop a "worst case" analysis and select sensitive receptors to be studied.

MINERAL RESOURCES

(11) Page 40, Mineral Resources. The following statement is made under Alternative 2 and referenced in Alternatives 3 and 4. "An undetermined amount of coal-related natural gas present in the Mary Lee-Blue Creek coal seams would be lost through the mining of Cripple Creek and Blue Creek tracts." This raises two separate issues of concern. First, coal bed methanization is a relatively new industry which is developing rapidly in this area. Once a coal seam is mined, methane is irretrievably lost. However, the coal seam can be degasified first, then the coal mined. Estimates from the Geologic Survey of Alabama are that for each ton of coal there may be anywhere from 200-600 cubic feet of methane. Extrapolating from this indicates an estimated 1 trillion cubic feet of natural gas in the Mary Lee formation. To this end an economic impact analysis for the loss of this resource should be included in the Final EIS, as well as a clarification of the ownership rights to the natural gas. Second, if coal leasing rights include natural gas rights and commercial methanization is a possibility, disposal of recovery brine is a severe environmental problem and should be addressed in the Final EIS.

SOILS

(12) Page 112, (Table 4-10). Do any of the "good" soils proposed for disturbance constitute prime agricultural lands? If so, have any lease stipulations, including special reclamation plans, been considered?

TRANSPORTATION

(13) Page 124. The DEIS gives an excellent explanation of how the volume to capacity (V/C) ratios were computed from existing ADT information. However, the failure to include

indirect trips (i.e., employee work trips, ect.) and the failure of the analysis to consider current road conditions appears to lend some doubt to the projections in Table 4-17. This should be addressed in the Final EIS.

(14) Pages 37 and 123-124. Under any of the alternatives, mining could conceivably occur until 2010 or later. However, adequacy of the transportation systems was projected only until 1995 for road systems and railroads and until 2000 for waterways. In this regard, the Final EIS should project transportation needs to the same time horizon as the mining horizon.

LAND USE

(15) Page 111, Surface Owner Consideration. The DEIS notes that two surface owners have submitted statements of refusal to consent to surface mining, involving total mineable acreage of approximately 54 acres. However, the DEIS dismisses the owners as being unqualified under SMCRA regulations. We believe these owners should be given more attention in the Final EIS. First, maps showing the 54 acres in question and how this acreage relates to the lease tracts under consideration should be provided. Second, since we believe there are other legitimate land uses besides those which qualify a landowner under Section 714 of SMCRA, consideration should be given to omitting these areas from the proposed tracts to be leased. Third, since as the DEIS states, surface owner consent is not needed for underground mining, are any of these areas to be underground mined? If they are, it would seem prudent to develop a mitigation plan in the form of lease stipulations to replace any drinking water wells contaminated or destroyed.

AQUATIC HABITS

(16) Page 107-108, Other Mitigating Measures. In this section a discussion on riparian ecosystems and their national and regional significance is provided. A recommendation to use "Best Technology Currently Available" to reestablish riparian ecosystems of similar or equal value is made. However, on page 4 in the DEIS, the following statement is made, "Based on the lack of demonstrated reclamation technology for reestablishing a similar riparian or bottomland forest vegetation condition, any surface mining through these vegetation types would result in their long-term and irreversible loss." These two statements appear to be in conflict and should be clarified in the Final EIS.

HENRY L. HOODMER  
DIRECTOR CORPORATE  
EXPLORATION & INVESTIGATION  
MINERAL RESOURCES



800 GRANT STREET  
PITTSBURGH, PENNSYLVANIA 15230  
TELEX 066425

AUG 29 1983

August 29, 1983

Bureau of Land Management  
Jackson Mail Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, MS 34213

Gentlemen:

The 60-day review and comment period provided by the June 24, 1983 "Environmental Impact Statement 11" for Southern Appalachian coal provides an opportunity for U. S. Steel Corporation (USSC) to comment on an issue of major concern. As holder of an existing Federal lease of underground coal, USSC is concerned about the proposed "overlap" of the Sandtown Tract in the Pratt seam and our leased North Rock Springs Church Tract in the Mary Lee seam group.

USSC is all too familiar with the problems inherent to multi-layered, individual seam control and recommends strongly against a Federal leasing program which results in such divided control. Such division will ultimately result in higher costs of mining for one or both operators, and could impact the safety of both operations, due to complexity of coordination between vertically overlapping operations.

Our review of the proposed Sandtown Tract indicates an overlap of approximately 960 acres with our existing lease. Pratt seam thicknesses of 3.5 feet or less are present in the overlap, based on previously released BLM maps. In view of the relatively small significance of this overlapping Pratt coal to the whole of the Sandtown Tract, we recommend that the Sandtown Tract be reconfigured to exclude the overlap area until the "technical problems caused by seam-by-seam leasing and Maximum Economic Recovery (MER) determination" are "addressed" and



United States Department of the Interior

NATIONAL PARK SERVICE  
SOUTHEAST REGIONAL OFFICE

75 Spring Street, S.W.  
Atlanta, Georgia 30303

IN REPLY REFER TO

D18(SER-PC)

AUG 18 1983

AUG 1983

Memorandum

To: District Manager, Jackson Office, Bureau of Land Management, Attention: Ed. Roberson  
From: Associate Regional Director, Planning and External Affairs, Southeast Region  
Subject: Draft environmental statement for Southern Appalachian Coal Region, Fayette, Tuscaloosa and Walker Counties, Alabama, (DES-83/49)

We have reviewed the subject statement and believe that it appropriately addresses areas over which we have jurisdiction and special expertise.

*W. Thomas Brown*



DEPARTMENT OF THE ARMY

MOBILE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 2700  
MOBILE, ALABAMA 36620

REPLY TO  
ATTENTION OF:

August 24, 1983

Environmental Quality Section

SEP - 6 1983

Mr. G. Curtis Jooce, Jr.  
Bureau of Land Management  
Jackson Mail Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Dear Mr. Jooce:

This office has reviewed the Draft Environmental Impact Statement 11 (DEIS) - Southern Appalachian Coal Region. The following are our concerns and comments on the DEIS.

Discussion is omitted of whether the DEIS is in accordance with the U. S. Fish and Wildlife Coordination Act of 1958 or if the U. S. Fish and Wildlife Service is preparing a Coordination Act Report.

There is a high probability that the channel of some streams in the project area may be channelized, rerouted or encroached upon. This type activity, in some cases, could require a U. S. Army Corps of Engineers permit. We could find no reference to this possibility.

The "Environmental Consequences" section of the DEIS is deficient in that it is not believed that adequate information is presented so that a reader or decisionmaker may form an accurate opinion as to the probable impacts resulting from the proposed action. While projections are presented, for example, on the changes in water quality parameters the DEIS contains little analysis of the resulting impacts.

The reliance on State and Federal water quality statutes to the point that it is concluded that since they are in place no adverse consequences will result is troublesome. In addition, discussion should be made of episodic climatic events and the resulting impacts by individual areas. A minimum effort in this regard would probably be the presentation of a "worst case" analysis of each area.

If you have any questions about these comments or if we can be of any further assistance, please call Mr. Dewayne Insand at 205/694-3858 or FTS 537-3858.

Sincerely,

*Lawrence R. Green*  
Lawrence R. Green  
Chief, Planning Division

SEP 6 1983

Mr. Donald L. Libbey, District Manager  
Bureau of Land Management  
Jackson Mall Office Center  
300 Woodrow Wilson, Suite 3495  
Jackson, Mississippi 39213

Dear Mr. Libbey:

We have reviewed the Southern Appalachian Coal Region Draft Environmental Impact Statement II and believe that the Bureau has presented a comprehensive discussion of reasonable alternatives and associated impacts. We have enclosed a number of comments which may be of assistance to you in preparing the final EIS.

If you have questions about these comments, please contact Mr. John R. Thurman at FTS 856-6656 or (615) 632-6656. Thank you for allowing TVA the opportunity to review the DEIS.

Sincerely,

*Mohamed T. El-Ashry*  
Mohamed T. El-Ashry, Ph.D.  
Director of Environmental  
Quality

1983-TVA 50<sup>th</sup> ANNIVERSARY  
A Year of Growth and Progress

TVA COMMENTS  
DRAFT ENVIRONMENTAL IMPACT STATEMENT II  
SOUTHERN APPALACHIAN REGIONAL COAL

1. Page 32, Changes in Groundwater Quality: Line 7 refers to Table D-2 in Appendix D, but there is no such table in Appendix D.
2. Page 32, Degradation of Water Quality: Line 6 refers to Table D-1 in Appendix D, but there is no such table in Appendix D. This reference is repeated on page 33 and page 101.
3. Page 33, first complete paragraph: It is unclear as to how pH, iron, and manganese in mine drainage are attenuated through "chemical constituent concentrations and diversion channels." We suggest the sentence be revised to read: ". . . are attenuated as necessary to meet effluent limitations by physical and chemical treatment."
4. Page 38, last two lines: Change "annual TSP standard" to "existing TSP standards." All TSP standards should be addressed.
5. Page 41, first line: It is unclear why waste rock accumulations would create an "aquifer." Waste rock from subsurface mining is typically disposed of on the existing surface above any water table. The words "an aquifer" should be replaced by "leachate."
6. Page 49, Air Quality, third line: Add "and along vehicle trafficways" to the sentence ending with "operations."

7. Page 52, Air Quality: We suggest the following statement be added.  
"The same mitigation measures as Alternative Three are applicable."  
Also, in lines 4 and 5 replace "annual TSP . . . standard" with "existing TSP . . . standards."
8. Page 64, Air Quality, second paragraph: SO<sub>2</sub> and CO are not mentioned. The ending of the last sentence should read: ". . . for O<sub>3</sub>, SO<sub>2</sub>, and CO."
9. Page 64, Air Quality, fourth paragraph: In the first sentence the use of the term "allowable levels" confuses standards with PSD increments. Also, there is a duplication of pollutant terms and a missing word. We believe the sentence should read: "Maximum SO<sub>2</sub> concentrations monitored in and near the EIS area are approximately 30 percent of the standards." Also, the applicability of the 30 percent figure to each of the standards should be verified.
10. Page 95, Air Quality, second paragraph: In the first sentence, delete "PSD (prevention of significant air quality deterioration)" and insert "total suspended particulates." In the fourth and ninth lines, delete "allowable."
11. Page 95, Air Quality: Information about 24-hour TSP concentrations and modeled maximum impacts from mining and related activities should be presented for technical completeness. Furthermore, a specific statement about potential for impacts on the Sipsey Wilderness Class 1 area would be useful.

12. Page 96, third and fourth lines: This sentence should be expanded to clarify whether this nonviolation conclusion is based on predicted impacts without mitigation or predicted impacts with mitigation.

13. Page 96, Committed Mitigation: This paragraph is unclear and we suggest the following revision:

OSM regulations at 30 CFR Sections 816.95 and 817.95 contain specific fugitive dust control measures. Fugitive dust control measures must be approved by the regulatory authority in order to conduct as site preparation, coal mining, and reclamation operations. Specific dust control measures which may be used, depending upon circumstance, include periodic watering, chemical stabilization or paving of unpaved roads, removal of dust-forming debris from roads, restricting vehicle speed or limiting vehicular access to certain roads, and revegetation.

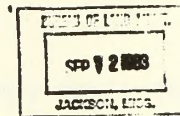
Also on page 96, with regard to mitigation of TSP impacts, consideration should be given to actions for preventing trucks from spreading materials (dust, mud or slime) on off-tract roadways which could be resuspended by subsequent traffic.

14. Page 106, Vegetation: We suggest adding a statement addressing the extent of impacts to wetlands.



Alabama Coal Association

September 8, 1983

William M. Kelce  
President

Mr. Robert L. Todd  
Bureau of Land Management  
Jackson District Office  
Post Office Box 11348  
Delta Station  
Jackson, Mississippi 39213

Dear Robert:

We have received the draft of the Southern Appalachian Region Coal Environmental Impact Statement II, that was prepared by the Bureau of Land Management.

I would like to go on record with you that I feel the study was very well done by your people. It is very important to our people in the mining industry, the people of Alabama, and the people of our great country, that the Department of Interior continue with its aggressive coal leasing program. If this country is to ever attain our national energy goals the federal government must allow its minerals to be extracted by the private sector.

We are going to miss having your operation in Tuscaloosa, as you have done an excellent job for the Bureau of Land Management over the past six years. However, I would like to take this opportunity to wish you the very best in your new assignment in Jackson, Mississippi.

Sincerely,

*Bill*  
William M. Kelce  
President

WMK:sk

## **APPENDIX B**

### **RESULTS OF THREATENED OR ENDANGERED SPECIES CONSULTATION WITH THE U.S. FISH AND WILDLIFE SERVICE**



March 22, 1983

IN REPLY REFER TO:  
Log no. 4-3-80-A-137

Mr. Robert L. Todd  
Bureau of Land Management  
Tuscaloosa Office  
518 19th Avenue  
Tuscaloosa, Alabama 35401

Dear Mr. Todd:

This is in response to your letter of March 15, 1983, requesting updated endangered and threatened species information relative to the 16 Federal Minerals Ownership tracts in Tuscaloosa, Fayette and Walker Counties, Alabama (your ref. 3100 (010)).

We have reviewed the information you provided, which updates your biological assessment of 1980. As you are aware, the listed species of primary concern with regard to projected coal mining activities on the subject area is the endangered red-cockaded woodpecker (Picoides borealis). We currently have no records of active colonies on any of the delineated tracts, although intensive searches of all of these tracts have not been made.

The flattened musk turtle (Sternotherus minor depressus) is a candidate species and, as such, currently receives no federal protection. However, our recently completed status review of this subspecies reveals that a threatened status is warranted, and we are in the process of preparing a Federal Register document to that effect. We anticipate that this proposal will be published by September of this year; if finalized, this subspecies will be officially listed sometime next year. Therefore, the flattened musk turtle, which occurs in the Black Warrior River System from Bankhead Dam upstream, will likely need to be considered in long-term project plans. This is especially true because coal mining and associated sedimentation and pollutants constitute one of the major threats to this turtle.

The evaluation of endangered species habitat within the project area is complicated by the time lag between lease sale and the commencement of actual mining activities and by the currently unknown location of surface habitat which will be affected by underground mining activities. Therefore, in lieu of the preparation of an updated biological assessment at this time, we recommend re-initiation of informal consultation upon submission of each individual mine plan.

As requested by Mr. Jack Hill of your staff, we are enclosing information concerning candidate plant species occurring in the subject counties.

We appreciate your concern for endangered species and look forward to working with you on this and other projects in the future.

Sincerely yours,

Dennis B. Jordan  
Field Supervisor  
Jackson Endangered Species Office

Enclosures

cc: D, FWS, Washington, D.C. (AFA/OES)  
RD, FWS, Atlanta, GA (AFA/SE)  
ES, FWS, Daphne, AL  
Division of Game and Fish, Montgomery, AL

JJ:vs 3/22/83

# APPENDIX C

## ERRATA TO DRAFT

### ENVIRONMENTAL IMPACT STATEMENT-II

#### (VOLUME I)

## APPENDIX C

### ERRATA TO DRAFT ENVIRONMENTAL IMPACT STATEMENT-II (VOLUME I)

Appreciation is extended those individuals representing federal, state, and local agencies, as well as numerous nongovernmental groups, organizations and clubs, who contributed the following constructive changes. The changes/corrections consist of revisions, deletions, and additions.

#### DOCUMENT COVER SHEET (ERRATA)

Page i - Item 4., add "Don Libbey, District Manager" to the top of the column at the left, and add "G. Curtis Jones, Director" to the top of the column at the right.

#### SUMMARY (ERRATA)

Page 4 - VEGETATION, after third sentence add the following:  
"Recommended reclamation techniques using "Best Technology Currently Available" to reestablish ecosystems of similar value do exist; however, no demonstratable reclamation "success" criteria are established. Restoration of bottomland hardwoods and riparian ecosystems to the exact species composition, distribution, and other species parameters does not exist."

#### CHAPTER 1 (ERRATA)

Page 9 - INTRODUCTION, first paragraph, last sentence, delete "Office of Coal, Tar Sands and Oil Shale, Department of Interior" and substitute "Division of Solid Mineral Leasing".

Page 9 - PURPOSE AND NEED FOR LEASING IN THE REGION, first paragraph, after "evaluate" add "the effects of".

Page 10 - paragraph one, fourth sentence, delete all after "BLM".

Page 10 - second paragraph, add the following sentence, "This recommendation is then forwarded to the Secretary of Interior through the Director of BLM."

Page 12 - fourth paragraph, third sentence, change "Coal, Tar Sands and Oil Shale" to "Solid Mineral Leasing".

Page 13 - third paragraph, start a new paragraph with the sentence, "Also taken into consideration . . . ."

Page 14 - fourth paragraph, sixth sentence, delete "These" and add "Changes".

## SOUTHERN APPALACHIAN REGION

Page 14 - RELATIONSHIP TO FIRST ROUND EIS AND LEASE SALE, first paragraph, first sentence, delete "region" and add "Alabama sub-region".

Page 15 - LEASING ON APPLICATION AFTER SECOND ROUND, second paragraph, first sentence, delete "a swath" and add "an area".

### CHAPTER 2 (ERRATA)

Page 22 - Surface water quality, first column, change "2-3" to "4-3"; second column change "2-6" to "4-4"; third column, change "2-8" to "4-5"; and fourth column, change "2-10" to "4-6".

Page 26 - REQUIRED AUTHORIZATIONS, second paragraph, third sentence, delete remainder of sentence after "pursuant to the Act." Add sentence that follows to the end of the paragraph: "The state, however, is interested in negotiating an agreement which would give the state regulatory authority for operations on Federal lands."

Page 31 - MINERAL RESOURCES, second paragraph, first sentence, delete the word "and" between "Federal" and "leasing".

Page 32 - Changes in Ground-Water Quality, second sentence, change "Table D-2" to "Figure D-2".

Page 32 - Degradation of Water Quality, second sentence, change "Table D-2" to "Figure D-2".

Page 33 - first paragraph, first sentence, delete all after "attenuated through" and add "as necessary to meet effluent limitations by physical and chemical treatment".

Page 42 - last paragraph, second sentence, add "mg/l" after "559.3"; and correct pH to "8.63".

### CHAPTER 3 (ERRATA)

Page 61 - LOCATION AND GENERAL DESCRIPTION, first paragraph, last sentence, delete the word "region" and add "study area" in its place.

Page 63 - fourth paragraph, first sentence, change "are" to "area".

Page 64 - AIR QUALITY, second paragraph, between second and third sentence add, "However, recent studies by ADEM indicate that the EIS area is "Attainment" for lead."

Page 64 - fourth paragraph, first sentence, add the word "are" after the word "concentrations".

Page 64 - fourth paragraph, fourth sentence, delete "previously prepared" and add "1st round".

## ERRATA

Page 64 - fourth paragraph, after last sentence add "Recent studies by ADEM indicate that the EIS area is "Attainment" for carbon monoxide."

Page 67 - WATER RESOURCES, last sentence, change "(see appendix D, Table D-1)" to "(see Technical Appendix, Tables 1 and 2)."

Page 73 - RELATIONSHIP TO LAND USE PLANS, heading, change "RELATIONSHIUP" to "RELATIONSHIP".

Page 75 - first line, change "first EIS" to "first round EIS".

### CHAPTER 4 (ERRATA)

Page 95 - AIR QUALITY, first sentence, after "climate" add "and air quality".

Page 95 - AIR QUALITY, second paragraph, first sentence, delete "PSD (prevention of significant air quality deterioration)" and add "TSP (total suspended particulates)".

Page 96 - third line, add to the end of the sentence after "increase", the following: "some, even with mitigation."

Page 101 - Changes in Streamflow Characteristics, first sentence, delete "result in increases in" and add "increase periods and duration of".

Page 104 - Potential Effects of Subsidence from Underground Mining, last sentence, add a comma (,) after the word "surface".

Page 105 - COMMITTED MITIGATION, second paragraph, first sentence, delete "Alabama Water Improvements Commission" and add "ADEM".

Page 109 - fourth line, delete remainder of sentence after "primarily to", and add "overcollecting of the species, silvacultural practices, agricultural activities, and sedimentation from surface mining."

Page 109 - sixth line, delete "(proposed threatened status)" and add "(candidate)".

Page 110 - Delete paragraph beginning with the following: "Alabama regulation 780.18 . . ."

Page 110 - LAND USE, add the following after last paragraph, "There may be National Ocean Services (NOS) geodetic control survey monuments within the study area. The leases issued should contain a stipulation that for any mining operation that will disturb or destroy these monuments, National Oceanic and Atmospheric Administration (NOAA) will require 90 days notice in order to plan for their relocation and that the cost may be charged to the mining operator."

## SOUTHERN APPALACHIAN REGION

Page 112 - Uncommitted Mitigation, first sentence, delete "OSM" and add "BLM".

Page 124 - third paragraph, first sentence, delete "OSM" and add "the regulatory authority".

### APPENDIX (ERRATA)

Page C-1 - APPENDIX C, third paragraph, first sentence, delete "table 2-8" and add "table 4-5".

# APPENDIX D

## MINUTES OF AUGUST 31, 1983 REGIONAL COAL TEAM MEETING



## APPENDIX D

### MINUTES OF AUGUST 31, 1983 REGIONAL COAL TEAM MEETING

SOUTHERN APPALACHIAN FEDERAL COAL PRODUCTION REGION  
ALABAMA SUBREGION

Stagecoach Inn, Tuscaloosa, Alabama

Tom Walker, Chairman, opened the meeting of the Southern Appalachian Regional Coal Team, second round efforts, at 11:00 a.m. and introduced the other members: G. Curtis Jones, Eastern States Director, Bureau of Land Management; and Bill Wallace, representative of the Governor of the state of Alabama.

The primary purpose of this particular meeting was to review the comments received on the Draft Environmental Statement II and to discuss the leasing schedule. Ed Roberson presented an overview of the comments received (approximately 22 at the time of this meeting) and indicated the agencies commenting. He stated that the DEIS was filed with EPA on June 21, 1983, and a Federal Register notice was published on June 24, 1983, giving public notice of the 60-day comment and review period ending on August 31, 1983. Over 500 copies of the DEIS-II were sent out, and comments received were as follows: two letters from industry, eight responses from State agencies, and twelve letters from Federal agencies. Copies of the comments were made available to members of the RCT, and each comment will be responded to in the FEIS-II according to the guidance of the RCT.

There was some discussion of the format to be followed in the FEIS-II and the RCT recommended that the same general format would be followed as on the first round FEIS. Tom Walker asked that an ample supply of copies of the DEIS-II be available along with the FEIS-II.

Doug Blankinship then presented a briefing of the MBO schedule to be followed in the completion of the FEIS-II (copy attached). There was some discussion of the lease sale schedule through May 1984, but further scheduling beyond that date was deferred until the next RCT meeting on November 17, 1983, so that the RCT can formulate its final recommendations to the Secretary regarding lease sale potential in this area based on concerns and considerations of various groups in the FEIS comments.

The RCT urged those present to try to stimulate better participation in the upcoming final RCT meeting so that its recommendations could be based on industry and public interests.

Joe Stephenson of Nickel Plate Mining Company requested that the RCT be aware of his company's high interest in the Jock Creek, Panther Branch, and the Revised Watermelon Road tracts now under consideration. The RCT assured Mr. Stephenson that he was encouraged to participate in all proceedings with the Team, and the staff would welcome any information he might have to be used for guidance for the RCT recommendations.

The RCT noted for the record that their next meeting would be on November 17, 1983, and recommended that this meeting be held in Tuscaloosa with ample notification of this in local newspapers. The meeting was adjourned at 11:30 a.m.

## TIMETABLE LEADING TO LEASE SALE

Transmit Preliminary FEIS to WO	10/14
>WO/Department Review, etc.	
File FEIS with EPA	11/15
Regional Coal Team Meets	11/17
FEIS Waiting Period Ends	12/15
Coal Resource Evaluation Completed	12/29
Transmit Draft SID to WO	1/9/84
Transmit Final SID to Associate Secretary	2/20/84
Transmit Final Lease Terms to State Office	2/24/84
Secretarial Lease Sale Decision	3/22/84
Pre-lease Sale Preparation Completed	4/20/84
Posting Period Begins	4/22/84
Regional Lease Sale	5/22/84

RCT MEETING ATTENDEES

Robert E. Kidd, USGS, Tuscaloosa, AL  
Thomas J. Hill, BLM, Tuscaloosa, AL  
Branson Williams, Alabama Electric Cooperative, Birmingham, AL  
Caroline Albright, BLM, Tuscaloosa, AL  
Joe Stephenson, Nickel Plate Mining Company, Fultondale, AL  
Tom Dyer, BLM, Tuscaloosa, AL  
R. L. Taylor, U.S. Steel, Birmingham, AL  
Robert A. Wiggins, AL Dept. Conservation & Natural Resources  
W. M. Cannon, Tuscaloosa, AL  
Wendell Tubbs, Cottondale, AL  
G. Curtis Jones, BLM, Alexandria VA  
Donald L. Libbey, BLM, Jackson, MS  
W.N. Summerall, BLM, Jackson, MS  
Steve Lambert, Northport, AL  
Franklin D. Cain, Tuscaloosa, AL  
Robert Todd, BLM, Tuscaloosa, AL  
Bill Wallace, Office of State Planning, Montgomery, AL  
Doug Blankinship, BLM, Alexandria, VA  
Ron Haynes, USFWS, Atlanta, GA  
Ed Roberson, BLM, Tuscaloosa, AL  
Richard Wallace, BLM, Tuscaloosa, AL  
Kahlman R. Fallon, Regional Solicitor's Office, Atlanta, GA  
Rusty Ward, AL Geological Survey, Tuscaloosa, AL  
Steve Muth, Office of Surface Mining, Pittsburgh, PA  
Bob Bagenstose, AL Geological Survey, Tuscaloosa, AL  
John Carlson, BLM, Washington, D.C.  
Tom Walker, BLM, Washington, D.C.  
Bill Harris, Alabama Surface Mining, Jasper, AL  
Maylene Hubbard, BLM, Tuscaloosa, AL

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(June 1984)

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