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**CASTLE
GATE**
COAL COMPANY

File AG 1007/004
#2
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APR 28 1988

DIVISION OF
OIL, GAS & MINING

April 25, 1988

Mr. Lowell Braxton
Administrator
Division of Oil, Gas & Mining
Three Triad Center, Suite 350
Salt Lake City, UT 84180-1203

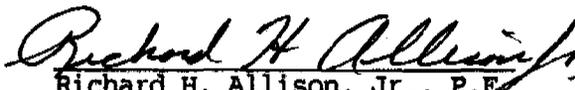
RE: Mid-Term Permit Review Submittal

Dear Mr. Braxton:

Enclosed are Castle Gate Coal Company's responses to the mid-term permit review comments made by the Division's staff on 19 February, 1988.

There are five (5) volumes of text and four (4) volumes of Map supplements which make up each set of the retyped approved MRP.

Sincerely,


Richard H. Allison, Jr., P.E.
Project Supervisor

RHA:jcr

cc: David Miller
Steve Youngbauer - Gillette
Chrono

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CASTLE GATE COAL COMPANY
Responses to
Division of Oil, Gas & Mining
Mid-Term Permit Review Comments
February 19, 1988

DIVISION OF
OIL, GAS & MINING

COMMENT:

UMC 771.23 Permit Applications - General Requirements
For Format and Contents - JSL

The mid-permit term submittal did not contain a plan to sample refuse materials prior to placement of soil materials, as required by Condition No. 1 of the approved permit. When reviewing previous correspondence between Price River Coal Company (PRCC), Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Division of Oil, Gas and Mining (Division), a question of sampling adequacy arises. The following briefly outlines the history of transmittals related to Condition No. 1:

The Division reviewed information submitted by PRCC on November 30, 1984; January 28 and February 25, 1985, in response to conditions to the permit approval. The Division commented in regard to the adequacy of the response. These comments were submitted to a modification to the response for Condition No. 1. This modification included the addition of the USDA texture class and change in sampling methodology to non-composite samples.

The Division notified PRCC with their concerns July 22, 1985. The operator contacted the Division October 31, 1985. PRCC was concerned that the modified sampling program would entail additional sampling per acre. The Division responded December 19, 1985 with a clarification to sample one individual representative site for each acre (basis of argument outlined in Memo to File, December 17, 1985). The operator was required to make a commitment.

On the same day that the Division transmitted the clarification to PRCC (December 19, 1985), the Division received a letter from PRCC addressing the conditions to the permit approval. The operator committed to collect four to five grab samples per acre. The Division submitted PRCC's response to OSMRE January 7, 1986. The Division regarded Condition No. 1 as being met. OSMRE had no further response to Condition 1.

The commitment by PRCC to collect four to five grab samples was established prior to reviewing the Division's December 19, 1985 letter. At this time the Division considers one sample per acre to be adequate.

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acceptable. In either case, in accordance with Condition No. 1, the operator must provide a plan, to be included within the MRP, to sample refuse materials prior to placement of soil material.

RESPONSE:

Castle Gate Coal Company has added the following statement to Section 3.4-4(1) Contemporaneous Reclamation "Prior to placement of subsoil and topsoil materials on the refuse, the waste material will be sampled at the rate of two (2) grab samples per acre. Lab analysis will include: PH, Electrical Conductivity, Ca, Mg, Na, Na absorption ratio, Fe, Boron, Pb, Sulfur (organic, pyritic, sulfate) and texture.

COMMENT:

UMC 782.13(e) Identification of Interests - SCL

Exhibits 4-1 and 4-2 show the following to be owners of record of surface or subsurface areas contiguous to the permit area: Zion's National Bank; Carbon County, Utah; S. Thurgood; A. Pollastro; Father Flanagan's Boys Town; M. Cleary and L. Pappas. Names and addresses of these owners should be included in the table under Section UMC 782.13(e).

RESPONSE:

Castle Gate Coal Company has made a check of the abstracts and tax records in the Carbon County recorders office. The Land Map has been updated to reflect the ownership changes found in the recorders office. Specifically, the changes are:

1. Zions Bank is no longer listed as property owner but transferred to Brigham Young University.
2. S. Thurgood has changed to Beaver Creek Property and Livestock.
3. M. Cleary property now belongs to L. Brown.
4. L. Pappas property now is listed as John, Nick and Gene Pappas.

The addresses for the owners are listed in Table 4-1.

COMMENT:

UMC 782.20 Identification of Location of Public Office for Filing of Application - SCL

The applicant has not addressed the requirements of this section in the updated Mining and Reclamation Plan (MRP).

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RESPONSE:

A statement has been added to Section 2.1 Identification of Parties which identifies the location of the filing.

COMMENT:

UMC 783.15-16 Ground and Surface Water Information - KW

These sections require that all hydrologic baseline data be submitted with the MRP. This data appears to be included. However, the reproductions are of such poor quality that they are illegible. Clear copies of this data must be submitted, along with summaries of the data from each station for each parameter. These summaries should include the maximum, minimum, average, standard deviation, and sample size for each parameter.

*

RESPONSE:

New copies of the original water quality data were obtained from the consulting firm of Hanson, Allen, Luce. These legible copies have been incorporated into the MRP. The request for maximum, minimum, average and standard deviation was not made by the Division when the data was taken in 1979 through 1983 according to the consultant. No changes were made to this section of the approved permit by Castle Gate Coal Company. The existing information ensures compliance with the act and the regulatory program. The Division's request for additional calculations is contrary to UMC 788.11.

COMMENT:

UMC 783.18 Climatological Information - LK

Data in Chapter 11 is acceptable. However, pages in this chapter are not numbered, making reference to this data difficult. Please number all pages in an orderly manner.

RESPONSE:

The pages have been renumbered.

COMMENT:

UMC 783.19 Vegetation Information - LK

1. There is no productivity data (or report from the Soil Conservation Service) for the Barn Canyon Grass-Sage, Dry Canyon Mountain Brush, and Crandall Canyon Pinyon-Juniper reference areas.

Reference areas are adequate for current permitted disturbance only. Any new disturbance may require additional vegetation sampling and establishment of new reference areas before disturbance.

2. The acreage listed for Barn Canyon does not add up to the reported total. Please clarify the acreage discrepancy. Table 9.4 headings are scrunched together, making this table very difficult to read. Please redo this table.

3. Appendix B is referenced in the MRP, yet it was not submitted. As determined with CGCC in a meeting on January 20, 1988, this appendix is the computer-generated data sheets that were appended to the Mariah Associates' report. The reference given to Appendix B should reference this report instead, and the fact that it is in Division of Oil, Gas and Mining (DOGM) files instead of in the MRP.

4. Page 88 references a letter to be inserted. Where is this letter?

5. Page 8 references vegetation maps with scales of 1" = 1000 ft. (permit area); 1" = 400 ft. (Hardscrabble and Sowbelly Canyons, Crandall Canyon, and Castle Gate Preparation Plant disturbed areas); and 1" = 100 ft. (Crandall Canyon Leach Field). These maps were originally prepared by Mariah Associates, and with the exception of the 1" = 100 ft. map (which is only of the leach field in Crandall Canyon), must be inserted in the MRP.

6. The map (9-1) in the plan (scale 1" = 2000 ft.) is not adequate. Please resubmit at 1" = 1000 ft. as referenced on Page 8.

7. Chapter 9 is difficult to follow, since some data and discussion contained therein relate to that portion of the old mine plan (Price River Coal Company's Price River Complex) that was retained by the parent company, now known as the Eastern Reserves. All data and discussion relating to the Eastern Reserves needs to be eliminated from the plan.

RESPONSE:

1. No productivity data was required by the Division for these areas when the permit was initially reviewed and approved. Castle Gate will request a productivity estimate by the SCS if required.
2. The Barn Canyon acreage was dropped. The Table 9.4 has been redone to clarify headings.
3. Appendix B has been noted that the Mariah report is located in the DOGM files.

4. The Page 88 reference to insert letter is a note in the word processor to the operator that an original document must be placed in the location rather than a typed letter from the word processor. In this case it was the letter from the SCS for productivity estimates.
5. The vegetation maps which are mentioned are located in the Mariah Associates Report.
- * 6. Castle Gate Coal Company has made no changes to Map 9-1 of the approved permit. The existing information ensures compliance with the Act and the regulatory program. The Division's request is contrary to the scope of UMC 788.11.
- * 7. The comment that Chapter 9 is difficult to follow is very nebulous. The Division needs to be more specific. The references in Chapter 9 to Price River have been changed to Castle Gate Coal Company. All data and discussion cannot be eliminated without a complete re-writing of the Chapter. Re-writing the Chapter is an unreasonable request. The existing information ensures compliance with the act and the regulatory program. The Division's request is contrary to the scope of UMC 788.11.

COMMENT:

UMC 783.20 Fish and Wildlife Resources Information - LK

Fish and wildlife information is generally complete and adequate. However, several references are made in Chapter 10 to Price River Coal Company. All commitments and plans should be made in the name of Castle Gate Coal Company. Also, pages in Chapter 10 are not uniquely numbered.

RESPONSE:

References to Price River Coal Company have been eliminated and the pages have been uniquely numbered.

COMMENT:

UMC 783.21 Soil Resource Information - JSL

1. The soil identified as 121 - Travessilla - Rock Outcrop - Gerst Complex, does not have a corresponding ID, as shown on page 35 of Chapter 8. Could it be "MRG"? The "MRG" soil ID does not have a corresponding soil series.
2. The soil survey association maps on page 8Axxiii and 8Axxiv are illegible. Please submit a legible copy(ies) with the permit boundary(ies) outlined.

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RESPONSE:

1. Castle Gate Coal Company checked with the SCS and verified that the MRG soil ID is The Travessila - Rock Outcrop - Gerst Complex. A note has been placed on Page 7 in Appendix "A".
- * 2. Soil surveys and maps are not required any longer due to order of District Court. (30 CFR 944.12 (8)). Castle Gate will remove the existing soil maps if requested by the Division.

COMMENT:

UMC 783.22 Land Use Information - LK

While most land use information is found in Chapter 4, information regarding type(s) of past mining, extent of mining, seams mined and approximate dates of past mining, is found in Chapter 5. This information should either be moved to Chapter 4, or a reference to the material in Chapter 5 needs to be made in Chapter 4. Also, page numbers in this section are not unique.

* RESPONSE:

The permit was reviewed by the Division and deemed complete prior to issuance of a permit. No changes to the land use information in the approved permit has been made by Castle Gate Coal Company. Moving or rewriting Chapters IV and V is an unreasonable revision of the permit. The existing format and information ensures compliance with the act and the regulatory program. The Division request is contrary to UMC 788.11.

COMMENT:

UMC 783.24(c) Maps: General Requirements - DD

The MRP should contain a schedule of the planned mining sequence for each seam. This information should be illustrated (in years) as blocked out areas on mining maps. The mine plan should also reflect the type of mining planned for each area (UMC 784.20(a)).

RESPONSE

Exhibits 3-2 through 3-9 show the mineable seams. Table 3.1-1 estimates the schedule of the mining sequence. Table 3.1-1 has been modified to state the mining methods.

* The request to modify the mining maps is unreasonable. The existing information ensures compliance with the act and regulatory program.

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COMMENT:

UMC 783.24-25 Maps: General Requirements: Cross-Sections, Maps,
and Plans - JRH

Maps and plans provided in the MRP are, in most applications, unsuitable for technical review. Reclamation drawings should be enlarged to sufficiently show detail of different reclamation treatments, including, but not limited to, slope and contour, disturbed area acreage, delineation of soils and vegetation treatments; identification of structures, mine openings, and other surface facilities; and appropriate cross-sections in order to determine cut and fill requirements for reclamation.

* RESPONSE:

The MRP passed a technical review before the permit was issued. The regulations which govern this area have not changed. Castle Gate Coal Company has made no changes to the approved permit.

The request to enlarge maps, etc... is unreasonable. The existing maps ensure compliance with the act and the regulatory program. The Division's request is contrary to UMC 788.11.

COMMENT:

UMC 783.25(e) Cross-Sections, Maps and Plans - DD

1. Larger scale mine maps should be submitted that show more detail of active, inactive and planned mining areas. Maps should be legible and have a scale of about 1 inch = 400 feet. The information requested under UMC 783.24(c) can be placed on this map for convenience (also see UMC 771.23(e)).
2. The geologic map (Exhibit 6-1) should show all coal outcrops and portray the attitude (strike and dip) of the formations on the property.
3. The mine plan should contain a map(s) showing abandoned or old underground mine workings adjacent to and on the minesite.
4. All maps should be reviewed and updated to ensure that all legends portray the symbols that appear on the maps, and that the symbols on the maps appear in the legend. Maps should be of sufficient size to make symbols legible. As an example, Exhibit 6-2 needs a legend, should identify the type of drill holes, and should be of better quality to show contour lines.

RESPONSE:

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- * 1. The request for larger scale mine maps is unreasonable. The existing maps were adequate for technical review when the permit was approved. Castle Gate Coal Company has made no changes to the existing maps in the approved permit. The existing maps ensure compliance with the act and the regulatory program. The Division's request is contrary to UMC 788.11.
2. The coal outcrops are shown on Exhibit 6-2.
3. The old underground mine workings are shown on each seam reserve Exhibits 6-3 through 6-11.
4. A legend has been added to Exhibit 6-2. The map was made from a mylor which was done by Price River Coal Company. The only way to improve it would be to completely redraft the map. Castle Gate Coal Company agrees that some contours are illegible but the 1" = 2000 feet contour base is the same as Exhibit 1-1. If the elevation must be known at a drill hole, then a check on another map can be made.

COMMENT:

UMC 783.27 Prime Farmland Investigation - JSL

Section 8.2 of the submitted permit refers to the correspondence addendum for the Soil Conservation Service negative prime farmland determination. The correspondence addendum was not located, nor was the negative prime farmland determination. Please submit.

RESPONSE:

A negative determination is found in the addendum in a letter dated 7/16/79 from USDA.

COMMENT:

UMC 784.12 Operation Plan: Existing Structures - JRH

As outlined in UMC 700.11, part (e), each structure used in conjunction with, or to facilitate underground coal mining activities, shall comply with the requirements of Subchapter K of the underground coal mining regulations. Additionally, those existing structures which do not meet the design requirements of Subchapter K must at least meet the performance standards of Subchapter K. Those facilities such as sediment ponds, embankments, cut slopes, pads, highwalls, roads and other facilities used in conjunction with mining operations, must all be proven to conform to these performance standards and be included in the disturbed area of the operations. Those areas affected by previous mining operations and used in conjunction with underground coal mining facilities since 1977 are to be included in the disturbed areas. The maps and plans should clearly delineate the disturbed areas and include the respective disturbed acreages on the drawings.

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In the case of sediment pond embankments and slopes exceeding the limits provided in the regulations in Subchapter K, the operator shall be required to justify the existing structures or provide designs and a timetable for the modifications of these structures. Demonstration of stability may be accomplished in some cases by the performance of the structure in the past with a commitment to maintain and monitor those embankments and slopes throughout the permit term. In some cases, however, it may be necessary to provide geotechnical information in order to satisfy the requirements of this section.

RESPONSE:

The Division's comments are very vague. The existing maps and plans clearly delineate the disturbed areas prior to mining.

In paragraph 2 the Division is asking for more technical information on slopes and embankments for roads, ponds. Before the Division and Office of Surface Mining issued a permit to Price River Coal Company, a finding on its completeness and adequacy was made. This finding (Attachment #1 to these comments) clearly states in Paragraph No. 1 that the State of Utah and The Office of Surface Mining find that the permit with conditions are accurate and complete and comply with the requirements of the approved Utah regulatory program, the Surface Mining and Control and Reclamation Act (SMCRA) and the Federal Lands Program (786.19(a)).

*

Therefore, based on the findings, these requests are unreasonable. The existing maps and plans, for roads and embankments, sediment ponds ensure compliance with the Act and regulatory program. Castle Gate Coal Company has made no changes in these approved portions of the permit. The requests made in UMC 784.12 is beyond the scope of UMC 788.11.

COMMENT:

UMC 784.13 Reclamation Plan: General Requirements - JRH

1. Maps and plans regarding the backfilling and grading of the site do not clearly depict the reclamation contours, final slopes, and the extent to which cuts and highwalls are to be backfilled. Pads and roads shown on the reclamation plan appear to be essentially identical to their existing contours. Under part (3) of this section, a plan for backfilling, soil stabilization, compacting and grading (with contour maps or cross-sections showing the anticipated final surface configuration) must be provided as part of the reclamation plan.

2. Cross-sections of the facilities are provided by the operator for the final surface plot plan of the areas to be reclaimed. However, no calculations could be found referencing the cross-sections for earthwork calculations. These calculations are required for backfilling and grading design for reclamation and determination of the bond amount.

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3. Maps used to show the final reclamation of the facilities are not clear. The disturbed areas on the drawings need to be outlined in a manner which will clearly show the disturbed area boundaries. Each map should also delineate and indicate the number of acres relevant to each specific area.

4. These maps or the cross-sections should also indicate final reclamation slopes, particularly noting the maximum slopes to be left upon final reclamation. In those areas where final slopes exceed 2h:1v, the operator needs to justify the final configuration for the earthwork and provide sufficient design calculations to ensure long-term stability of the slopes.

RESPONSE:

*

1. Paragraph #1 requests additional maps in order to perform another technical review. The reclamation plan in the approved permit has not been changed by Castle Gate Coal Company. This request is unreasonable and contrary to UMC 788.11.

2. Paragraph #2 requests calculations for earthwork. Each disturbed area in the permit in Chapter III has bonding calculations. There is an amount included for grading which was based on acres disturbed for each area such as Castle Gate Prep Plant, Sowbelly Gulch, etc. The request for another method of calculating earthwork is unreasonable and beyond the scope of UMC 788.11.

3. Paragraph #3 requests a better disturbed area boundary line. The maps have been checked and new boundary lines drawn if necessary. The acres of disturbance for each area are in the bonding calculations in Chapter III.

4. Paragraph #4 requests additional maps. The section entitled backfilling and grading in Chapter VIII, page 28 addresses this concern and request.

In general, the requests made by the Division in this section are unreasonable. The existing information contained in the MRP is sufficient to conform with the regulation and the act. These portions of the approved permit have not been changed by Castle Gate Coal Company. The Division's request is contrary to UMC 788.11

COMMENT:

UMC 784.13 Reclamation Plan: General Requirements - JSL

The reclamation plan presented in Chapter IX does not include a soil compaction mitigation plan. It is advisable to rip or disc the soil material after fertilization and prior to seeding.

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RESPONSE:

The following statement has been added to page 53, Chapter IX.
"The seed bed preparation will consist of discing areas which have a slope of 4:1 or less in order to reduce compaction."

COMMENT:

UMC 784.13(b) Reclamation Plan: General Requirements - KW

The MRP needs to specifically discuss the reclamation timetable. This includes regrading, revegetation, removal of the sediment ponds, and monitoring of discharge entering the sediment ponds. Plans for sediment pond reclamation (including a commitment to maintain the ponds until the requirements of UMC 817.46(u) have been met) were not located in the permit. The reclamation timetable should reflect this commitment, and the monitoring discussed under UMC 817.46.

RESPONSE:

A section 3.1-10(8) has been added to Chapter III which reads as follows:

- | | |
|---------------------------|----------|
| (8) Reclamation timetable | |
| 1. Demolition | 3 Months |
| 2. Portal Sealing | 6 Months |
| 3. Grading | 6 Months |
| 4. Topsoil Redistribution | 1 Month |
| 5. Revegetation | 1 Month |
| 6. Pond Reclamation | 1 Month |

* The request for a commitment from Castle Gate Coal Company to abide by UMC 817.46(u) already exists. Page 1 of the permit binds Castle Gate to the regulations.

COMMENT:

UMC 784.13(b)(5) Revegetation Plan - LK

The revegetation plan presented in the MRP does not constitute a plan as required by the Division. Please review and revise to assure the MRP has a specific revegetation plan that, at a minimum, contains:

- (i) A schedule for revegetation, including approximate dates (month and year), for each major step in revegetation.
- (ii) Specific species and amounts per acre of seeds and/or seedlings to be used in reclamation of various areas. The proposed plan is nothing more than a laundry list of species that are believed to be adapted to the general habitat conditions of the permit area. Many of the species

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listed are not available commercially, nor does it appear likely that they would be available in the foreseeable future in commercial quantities. Many of the species are introduced species for which the plan lacks sufficient documentation that they meet the criteria of UMC 817.112.

- (iii) A description of planting and seeding methods. If different methods will be used at different locations, this needs to be identified on a map or other suitable format.
- (iv) Mulching techniques, including type of mulch(es), rate(s) of application and how the mulch will be anchored. All areas to be seeded will require mulching or other acceptable soil stabilizing practices (page 57 indicates that there will be areas where mulch will not be used). Again, areas where different mulch treatments or other soil stabilizing practices are to be employed need to be identified on a map.
- (v) The proposed plan does not discuss irrigation or pest and disease control. If none are planned, it should be stated so in the revegetation plan.
- (vi) Please correlate the seed mix(es) and/or revegetated areas (disturbed areas) with the appropriate vegetation reference area that will be used to determine revegetation success.

Please refer to the Division's Draft Revegetation Guidelines to aid you in developing a suitable revegetation plan.

RESPONSE:

- (i) A revegetation schedule has been added to the MRP. The new section which is in Chapter 9 is: 9.4 Revegetation Schedule

The reclamation in question is an area called "Goose Island" and was reclaimed in 1985.

The reclamation of the #4 beltline area will be done when the mine facilities in Hardscrabble Canyon are reclaimed. At the present time Castle Gate Coal Company will use the ore for the storage of supplies and excess equipment.

The statement that a permit condition requires reclamation of Sowbelly Canyon in 1988 is incorrect. The condition #2 of the permit requires reclamation of Sowbelly if the culverts were not replaced which met DOGM/OSM standards. These culverts were replaced by Price River Coal Company. Castle Gate Coal Company intends on using

the area in Sowbelly Canyon for excess equipment and supply storage.

- (ii) The species and amounts per acre of seeds and seedling were approved by the Division and OSM prior to the issuance of the permit in 1984. Castle Gate has replaced the old seed and planting lists with those recommended by the Division.
- (iii) A description of the planting and seeding methods is given in Chapter IX, page 52. The regulations do not require seeding methods to be located at different areas. Rather Castle Gate is tied to a performance standard in Section 817.111 to 817.116.
- (iv) The statement on Page 57 has been eliminated. Castle Gate will mulch all seeded areas.
- (v) A statement has been added to Chapter IX, page 53 which states: "No irrigation is planned. No pest or disease is anticipated. However, a plan to control disease or pests will be developed with the Division should a problem arise".
- (vi) Each reclamation configuration map (Exhibits 3.2-4, 3.3-4, 3.6-4, 2.7-9) shows the type of revegetation to be used for each area. These areas can be correlated to the species lists #1, #2 and #3 given in Chapter IX, Table 9.19.

COMMENT:

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance - KW

1. All Best Management Practices that will be used for specific areas during the reclamation period, especially if the applicant proposes using alternative sediment control practices instead of sediment ponds.
2. The water monitoring program. This program needs to be corrected and updated. This will require updating the text to describe the current monitoring locations. The applicant should incorporate the operational parameters from the Division's water monitoring guidelines into the sampling plan. The applicant may propose to delete some of these parameters, if justification is presented based upon baseline data and conditions at the site.

RESPONSE:

1. Paragraph 1 is a statement and requires no response.

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2. The Sections 7.5-1 and 7.5-2 have been modified and updated to conform with current guidelines and number of sampling points.

COMMENT:

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance

UMC 784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams,
and Embankments

UMC 817.46 Hydrologic Balance: Sedimentation Ponds - RS

1. A map of Sediment Pond #004 was not submitted in the application. It also appears that maps for ponds in other canyons were not submitted.
2. A map of the drainage area to each pond was not included in the submittal.
3. The application used a value of 0.035 AF sediment for each acre of disturbance. The application includes a research paper that was used to justify this value, but the paper was not cited, and the copy in the application contained information that was "blacked out". The Division cannot accept this value without further justification.
4. Information required by the Department of State Health (letter of January 27, 1987) concerning oil skimmers; sediment storage volume and freeboard; and specific concerns with ponds 3, 7, 8, 9, 11, and 15 should be included in the MRP.
5. The curve numbers, used for design calculations, conflict throughout the application. The peak flow designs are extremely sensitive to the selection of this value. The permit should use consistent values and provide the information and assumptions used to select those values.
6. A monitoring plan to demonstrate compliance with UMC 817.46(u) should be incorporated in the MRP.

RESPONSE:

1. The map of Pond 004 was inadvertently omitted in the Map Supplement sent to the Division. A copy is incorporated in this submittal.
2. The maps which show drainage areas are: 3.2-2, 7-3A, 3.4-2, 3.7-4.
- * 3. The value in the permit was accepted when the Division gave a permit to Price River Coal Company. Castle Gate Coal Company tried to find a clear copy of the "Use of The Universal Soil Loss Equation in California" by calling the SCS in Davis,

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California. Neither Evans or Kalkanis work for the SCS anymore nor could they find a copy of the specific report. The lack of a clear copy of this paper does not constitute a failure to provide information to the Division by Castle Gate Coal Company. The paper was reviewed by the Division/OSM prior to the issuance of a permit and found acceptable. The Universal Soil Loss equation is a standard methodology used throughout the United States.

4. The Department of Health is currently reviewing the ponds for their approval. All the suggested changes to the ponds have been incorporated into the MRP.
- * 5. The comment is beyond the scope of UMC 788.11. The existing curve numbers were accepted by the Division prior to approving the permit. Providing additional information on curve numbers is an unreasonable request. The existing curve numbers and designs ensure compliance with the act and the regulatory program. The Division has already performed a technical review of the hydrology and issued a permit.
- * 6. UMC 817.46(u) does not require a plan. It is a performance standard which must be met before sediment ponds are removed.

COMMENT:

UMC784.15 Postmining Land Use - LK

Undeveloped land is a condition, not a land use as identified in Chapter 4 (page 2). References in Chapters 5 and 9 identify grazing as the primary land use. Chapters 4, 9 and 10 identify wildlife habitat as an important land use. Chapter 9 (pages 78 & 79) identifies the goal of reclamation as range and wildlife habitat. Please correctly identify the land use throughout the MRP. All roads to be left as permanent facilities must meet the requirements of UMC 817.133.

RESPONSE:

The "undeveloped land" in Chapter 4 (page 2) has been changed to Grazing and Wildlife Habitat.

The goal of the Postmining Reclamation is to reclaim the disturbed areas to Range and Wildlife Habitat.

The roads which will be left after mining ceases are necessary to support the intended land use and will meet the criteria of UMC 817.133.

COMMENT:

UMC 784.19 Underground Development Waste - JRH

The only information found in this section of the Mining and Reclamation Plan is the consultant's reports for the refuse embankment. Since the original design of the facilities, analysis for stability and design were accomplished in 1982.

It is noted in the consultant's report that four to five feet of non-toxic material will be required to cover the waste materials in the refuse pile. However, in the bonding calculations, soil cover is only indicated to be six inches of material. There is no justification in the previously approved MRP for the reduction of cover material.

The plan does not include or cover the requirements for monitoring the embankment for stability and piezometric surface. Although these plans have been implemented and are ongoing, the operator still needs to provide details of the methodology, location and frequency of monitoring the refuse pile for stability.

Quarterly reports are required by the Division for the inspection and condition of the refuse embankment. This reporting information is also required by MSHA for the facility. UMC regulations require that the reports be sent to the Division and a copy of the reports be maintained on file at the mine office. The Division does not have these reports in the Salt Lake office. However, the operator may propose that the copies maintained onsite are sufficient to meet the requirements of the Division if a commitment is made to notify the Division of any adverse or hazardous conditions found during inspection or operation of the facility. This proposal would have to be made by the operator approved by the Division in order to attempt to waive the reporting requirements of the regulations.

RESPONSE:

1. The consultants report was done prior to the results of toxicity test done on the refuse. The commitment which Castle Gate has made shows in both Sections 3.4-4(a) and 8.5 of the MRP. Castle Gate will replace a total of 6" of resoiling materials. Justification is the non-toxicity is shown in the lab reports in Chapter VIII Figures 8-11 through 8-26.
2. See response 817.24 Topsoil.
3. Castle Gate Coal Company has been inspecting the refuse pile on a quarterly basis. A report is kept on file at Castle Gate's office. The Mine Safety and Health Administration does not require this report to be sent to them on a quarterly basis. An annual report is made and sent to them on the status of the pile. A copy of this report is sent to the Division. A waiver on the sending of a copy of the Quarterly report to the Division has been requested.

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COMMENT:

UMC 784.20 Subsidence Control Plan - DD

Figure 3.1-1 is illegible. The subsidence control plan is based on the data that is supposed to be provided in this table. Without this information, the subsidence control plan cannot be verified.

RESPONSE:

Figure 3.1-1 has been enlarged in order to make the form more legible.

COMMENT:

UMC 784.21 Fish and Wildlife Plan - LK

The operator needs to provide a commitment to promptly report to the Division any threatened or endangered species (plant or animal) of which he becomes aware that have not been previously reported to the Division (see UMC 817.97(b)).

The operator needs to provide a commitment to the Division not to use persistent pesticides unless approved by the Division in advance (see UMC 817.97(d)(7)).

The operator needs to provide a commitment to the Division to prevent, control and suppress range, forest and coal fires not approved by the Division (see UMC 817.97(d)(8)).

The operator has not addressed plans to design, construct, utilize and maintain all transportation systems (i.e., roads, railroads, conveyors, etc.) and support facilities required for operation of the mine to minimize impacts to fish and wildlife.

The letter from the U.S. Fish and Wildlife Service regarding the adequacy of raptor protection on existing power lines should be included in the MRP.

RESPONSE:

* UMC 784.21 has been remanded by a U.S. District Court decision (See 30 CFR 944.12). The requests for commitments citing UMC 817.97(b), UMC 817.97(d)(7) and 817.97(d)(8) are not needed. The regulations cited are performance standards. The commitments already exist. Page 1 of the permit binds Castle Gate to the regulations.

The letter from the U.S. Fish and Wildlife Services regarding the adequacy of raptor protection is in the addendum. The letter is dated 9 October 1981.

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COMMENT:

UMC 784.22 Diversions

UMC 817.43 Hydrologic Balance: Diversions and conveyance of
Overland Flow, Shallow Ground Water Flow, and
Ephemeral Streams - RS

The following comments refer to Sowbelly Canyon. However, the application must contain this information for all disturbed areas.

1. The application does not present an Exhibit with labels of the diversions and culverts located in Sowbelly Canyon.
2. The watersheds presented on Exhibit 7-2 are not of adequate scale to verify the hydrologic assumptions used in the calculation of design peak flows.
3. Riprap sizes are not given for all diversions. The riprap sizes presented in the MRP are not specified as D_{50} or D_{max} .
4. An Exhibit could not be located verifying the diversion slopes. A topographic map of adequate scale or a longitudinal profile of each diversion should be submitted.
5. Energy dissipators as required by Subsection (f)(3) and UMC 817.47 have not been addressed.

RESPONSE:

1. The Exhibit 3.2-2 labels culverts and diversions.
- * 2, 3, 4, 5. The requests for additional larger scale maps, riprap calculations, topog and energy disapators are unreasonable and contrary to UMC 817.11. The existing designs and calculations were adequate when the permit was approved and ensure compliance with the act and the regulatory program. No changes in these portions of the approved permit have been made by Castle Gate Coal Company.

COMMENT:

UMC 784.23 Operation Plan: Maps and Plans - JRH

Maps and plans presented in the MRP showing the operations and the facilities must include the disturbed area boundaries for reference. The boundaries should also include those areas in which proposed facilities are scheduled for construction, as well as borrow areas which may be required for reclamation. Primarily, this information needs to be provided with the operation plans to ensure that the operator is conducting mining activities within the approved permit areas of the plan. These boundaries should coincide with the perimeter markers and

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other boundary requirements, as provided in the approved mining and reclamation plans.

RESPONSE:

The existing disturbed area boundaries are shown on Exhibits: 1-1, 3.2-1A, 3.3-1A, 3.4-1.

COMMENTS:

UMC 784.24(a) Transportation Facilities - KW

The applicant proposes leaving some roads in for the post-mining land use. This regulation requires cross-sections of all proposed permanent roads, showing that the drainage systems meet the performance standards in Subchapter K.

RESPONSE:

*

The regulation cited addressed "each road conveyor, railroad to be constructed, used or maintained". Each disturbed area within the permit contains these descriptions and maps. The existing maps and descriptions in the approved MRP ensure compliance with the act and this section of the regulations. A request for additional maps and descriptions is contrary to UMC 788.11.

COMMENT:

UMC 800 Bond and Insurance Requirements - JRH

The operator has provided breakdowns of the reclamation activities for the plan. However, until such time as the plan can be determined complete and technically adequate, a detailed review of the reclamation cost estimate will not be accomplished by the Division. Due to changes in the reclamation plan of the site from transfer and splitting of the approved operation with American Electric Power (AEP), the operator is considered to have sufficient bond at this time. Depending on the resolution of reclamation plans and procedures contained in the MRP, the operator's bond will most likely be reduced.

The Division has received from the operator, a request to reduce the bond in accordance with those cost estimates, provided in a submittal to the Division on September 29, 1987. This determination will be made in conjunction with the Mid-Permit Term Review.

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RESPONSE:

The information submitted to the Division is adequate to grant a reduction in bond.

COMMENT:

UMC 817.22(e) Topsoil: Removal - JSL

1. As described in Section 8.3, page 19, areas previously disturbed with no topsoil will have tested "...suitable alternative re-soil materials..." to "...commence as soon as practicable." Page 36 states that samples will be taken by late summer of 1984. This data has not been located within the text of the submitted mid-term permit. Please submit.
2. In Chapter 9, pages 70 and 81, the submittal implies that a site will be naturally invaded by surrounding vegetation when direct haulback and upper lift salvage of soil has taken place. This may be the case in instances of well-developed O, A and E horizontal development. However, natural revegetation is questionable when corresponding to the slightly developed, calcareous and arid soils proposed for revegetation. Unless the operator can justify this case for the Castle Gate soils, the argument presented provides no verification of reclamation success with the "re-soiling materials". Otherwise, this discussion should be removed from the plan.
3. The following parameters should be analyzed for all re-soiling materials: pH, USDA textural class, electrical conductivity, sodium adsorption ratio, boron, selenium, percent rock fragments, percent calcium carbonate and saturation percentage. The operator may need to demonstrate the feasibility of the proposed "re-soiling materials" by approved field site trials. This determination will be based on the submitted analysis of the "re-soiling material" as described above and vegetation data from revegetated areas using the "re-soiling material."

RESPONSE:

1. Page 35 of the approved MRP states that this information is located in Appendix 8-A.
2. The discussion has been removed.
3. The parameters suggested will be used to test resoiling materials and have been incorporated into the approved MRP Chapter III, Section 3.4-4(1) Contemporaneous Reclamation.

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COMMENT:

UMC 817.24 Topsoil: Redistribution - JSL

Several redistribution depth discrepancies have been found within the submitted plan. Chapter 3, page 49, Table 3.1-2, includes plans for a four-foot cover over refuse in Sowbelly Canyon, Hardscrabble Canyon, Castle Gate, and Crandall Canyon. Chapter 8, page 31, states that 12 inches of material will be distributed over the refuse waste at Castle Gate. Section 3.4-4(1) includes a redistribution depth of 1.5 feet of non-toxic material to be placed in Schoolhouse Canyon prior to six-inch distribution of re-soiling materials. Review of historic correspondence between PRCC and the Division implies that the 1.5 feet of non-toxic material covered by six inches of re-soiling material to be the appropriate plan. Please amend these inconsistencies, with appropriate reference.

RESPONSE:

Chapter III and Chapter VIII have been revised to reflect the non-toxic qualities of the refuse. Chapter III, Section 3.1-10, page 54 states that no resoiling will be necessary. The refuse at Castle Gate has also been determined to be non-toxic and therefore only 6 inches of resoiling material will be necessary to cover the refuse. The historic documentation does state that 1.5' of non-toxic material will be palced prior to the 6" of re-soiling materials. This statement was made prior to the laboratory tests which proved that the refuse material was non-toxic. Therefore, the text has been revised in Chapters III and VIII to reflect that only six inches (6") of re-soiling materials need to be placed on the refuse.

COMMENT:

UMC 817.42 Hydrologic Balance: Water Quality Standards and Effluent Limitations - RS

The application does not contain adequate detail to determine the drainage area to each pond. The operator should submit an Exhibit depicting which disturbed areas report to each sedimentation pond. For all disturbed areas not reporting to a pond, the application must address Subsection (a)(3) of this regulation (Small Area Exemptions). The chlorination plant and the lower substation in Sowbelly Canyon are examples of these areas.

*

RESPONSE:

The request for additional maps which provide increased detail for drainage areas is unreasonable. The existing maps in the approved MRP provide the necessary information to assure the Division of compliance with the act and this regulation. No changes in these portions of the approved permit were made by Castle Gate Coal Company. The request is contrary to UMC 788.11.

FINDINGS

Transfer of Permit Rights
Price River Complex
Castle Gate Coal Company
ACT/007/004
Carbon County, Utah

May 30, 1986

The applicant for transfer of permit rights, Castle Gate Coal Company has committed to continue to conduct the operations involved in full compliance with the terms and conditions of the original permit issued to Price River Coal Company (UMC 788.18(c)(3)). Therefore, Findings II 1-4, and 9-14 of the original Decision Document (attached) are still pertinent.

However, Castle Gate Coal Company is not going to take over the responsibility for the entire permit area which was under permit by Price River Coal Company. Specifically, Price River Coal Company will retain the liability for the Willow Creek Storage area, and the Kennilworth/Utah Fuel mine fan and intake portals. This area is shown on Attachment number 2 of the Request for Permit Transfers filed by Castle Gate Coal Company.

Currently, Castle Gate Coal Company has submitted a bond sufficient to cover the entire permit area permitted by Price River Coal Company. After this permit transfer has been effected, the Division of Oil, Gas and Mining (DOGGM) will determine the amount of bonding liability that Price River Coal Company must continue to carry for reclamation of the area which will not be transferred. Upon posting of the requisite amount by Price River Coal Company, the Castle Gate Coal Company bond will be reduced by the same amount.

The following findings specifically apply to the application for transfer of permit rights.

1. The State of Utah, DOGM has determined that the application for transfer of permit rights is accurate and complete, and complies with the requirements of UMC 788.18(a) and (b).
2. The applicant has obtained a performance bond equivalent to the bonding requirements of the original permit, in the amount of \$2,683,603 (1987 Dollars) (UMC 788.18(c)(2)).
3. The applicant has the legal right to enter and begin coal mining activities pursuant to the Lease Transaction Agreement between Price River Coal Company and Castle Gate Coal Company or a letter of agreement between Blackhawk Coal Company and Castle Gate Coal Company.

4. DOGM's records show that Castle Gate Coal Company has received no violations in Utah, and therefore does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act. Castle Gate Coal Company has paid no fees to the Abandoned Mine Reclamation Fund, as no coal has been mined in Utah.
5. Procedures for public participation have complied with requirements of the Act and the Utah State Program. Notice was published in the Price Sun Advocate on February 14, 1986 as required by UMC 788.18(b)(1). No comments were received.

Susan C. Zimmer
DOGM Lead Reviewer

James P. Bampton
Administrator, Mineral Resource
Development and Reclamation Program

Kevin E. May
Associate Director, Mining

Barbara Roberts
Attorney General
Approved as Form

Daniel P. Nielson
Director

FINDINGS

Price River Coal Company
Price River Mine Complex

Application for Mining Plan and Permit Approval

I. The State of Utah and the Office of Surface Mining (OSM) have determined that the mining plan and permit application submitted on March 20, 1981, and updated through July 6, 1984, and the permit with conditions are accurate and complete and comply with the requirements of the approved Utah regulatory program, the Surface Mining Control and Reclamation Act (SMCRA), and the Federal Lands Program [786.19(a)]

II. The Utah Division of Oil, Gas and Mining (UDOGM) and the Office of Surface Mining (OSM) have reviewed the permit application and prepared the technical and environmental assessment (TEA); and based on this have made the following findings:

I. The applicant proposes acceptable practices for the reclamation of disturbed lands. Vegetation will be reestablished utilizing introduced species which were successfully grown in this area prior to the onset of mining operations. UDOGM and OSM have determined that reclamation, as required by the Act, can be feasibly accomplished under the mining plan. [786.19(b)]

OSM has determined that reclamation at the Price River Mine Complex is technologically and economically feasible under SMCRA. [Section 522(b)]

2. The cumulative hydrologic impact assessment (CHIA) for the Price River Mine Complex has been made by UDOGM and OSM, and the operation has been designed to prevent any material damage to the hydrologic balance. An assessment of mining operations in the vicinity of the Price River mine showed that there are no active coal-mining operations upstream except for those that are isolated from the Price River by Scofield Reservoir. State leases exist upstream of the mine, but mine plans have not yet been developed for these tracts. Although some mining exists downstream on the Price River, the cumulative hydrologic impacts near the Price River Mine Complex are expected to be negligible. Due to the lack of other coal-mining operations in the Price River basin that could potentially have any cumulative impact on the local

hydrologic system, the cumulative impact area (CIA) includes only the PRCC complex lease and immediate area. A summarization of findings follows:

The surface water control plan is sufficient to prevent uncontrolled runoff from leaving disturbed areas within the surface facilities sites. The chemical quality of the surface water in the permit area is generally alkaline with various parameters that have been found to exceed water quality standards or equivalent NPDES criteria for discharge points, primarily as a result of coal and coal fines being allowed to wash into Hardscrabble Canyon in the past. Although the water quality at the mine sites was declining prior to the implementation of surface water controls, current monitoring data indicates that these controls are allowing the water quality to improve.

Reduction of flow of surface water will occur as a result of evaporation from sediment ponds. The amount of waters evaporated is expected to be insignificant; however, there is a potential to reduce baseflow to the streams by less than one percent. An analysis of the amount of ground-water flow intercepted by mining represents only 0.6 to 0.9 percent of the Price River mean annual flow. This intercepted ground water potentially represents a maximum of 56 percent of the water rights held by the mine. Any diminution of baseflow can be replaced by the mine.

During active mining, inflow into the mine from the regional aquifer system is expected to be in excess of the natural recharge of the aquifer system, indicating that water is being removed from storage. This will result in a decrease in the hydrostatic head of the Blackhawk/Star Point aquifer. Due to a lack of potentiometric data, the loss of hydrostatic head cannot be quantified. This water removed from ground-water storage will eventually be replaced as recharge occurs.

Incremental increases in TDS and TSS constituent loads to receiving waters, based on comparing TDS values from the Blackhawk monitoring wells to water from abandoned mine workings, are expected to be within established effluent limitations. The impact is, therefore, considered to be minimal.

Subsidence impacts to the area as a result of mining will be controlled by limited extraction of coal in the mine under Price River and Willow Creek. Impacts to springs and surface waters by subsidence are expected to be minimal due to the amount of overburden and the fact that there is no historical occurrence of subsidence in the area.

The probable cumulative hydrologic impact assessment of all existing and anticipated mining in the general area indicates that the surface facilities and underground mining operation proposed under this application have been designed to prevent damage to the hydrologic balance in associated off-site areas [UMC 786.19(c); TEA, Cumulative Hydrologic Impact Assessment]

3. After reviewing the description of the proposed permit area, the OSM has determined that the area is:
 - a. Not included within an area designated unsuitable for mining operations. [UMC 762.11]
 - b. Not within an area under study for designating lands unsuitable for coal mining operations. [UMC 764 and 765]
 - c. Not on any land subject to the prohibitions or limitations of 30 CFR 761.11(a) (national parks, etc.), 761.11(f) (public buildings, etc.), and 761.11(g) (cemeteries). [786.19(d) (3)]

The Willow Creek facilities area is adjacent to the Willow Creek Cemetery but beyond 100 feet from the nearest border of the cemetery. The area is currently used only for storage and a ventilation system with an access road. The area was in existence prior to 1977; therefore, the prohibitions and limitations of 30 CFR 761.11(g) do not apply (see letter from Price River Coal Company dated November 1, 1983). The cemetery will not be impacted by the activities at the Willow Creek site (see TEA, "Cultural Resources"). The Price Canyon Recreation Area, located at the north-central border of the proposed permit area, will most likely experience some subsidence as a result of longwall mining underneath the recreation area by the applicant. No structural damage is anticipated, and subsidence effects are expected to be minimal. The applicant is responsible for material damage to structures or facilities resulting from subsidence and is tied to liability under State of Utah law. The land management agency of this recreation area, the Bureau of Land Management, has consented to permit the applicant to mine under the Price Canyon Recreation Area (see BLM letter of concurrence dated February 2, 1984). Concurrence between BLM and OSM allowing the applicant to mine underneath the Price Canyon Recreation Area is in accordance with UMC 761.11(a) (3).

- d. Within 100 feet of the outside right-of-way of a public road. The operations within 100 feet of public roads existed prior to the passage of PL 95-87. [UMC 786.19(d)(4)]
 - e. Not within 300 feet of an occupied building. [UMC 786.19(d)(5)]
 - f. Not unsuitable in accordance with section 522(b) and (a)(3) of SMCRA.
4. OSM's issuance of a permit and the Secretarial decision on the Mineral Leasing Act plan are in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). The life-of-mine area includes a cemetery site that represents the known extent of cultural resources sites in the vicinity of the permit area. [UMC 786.19(e); see Concurrence Letter section]
 5. The applicant has the legal right to enter and begin mining activities in the permit area. [UMC 786.19(f)]
 6. The applicant has submitted proof, and OSM's records indicate, that prior violations of applicable laws and regulations either have been corrected or were in the process of being corrected. [786.19(g); verified as of May 17, 1984; personal communication with Steve Martin, OSM, Albuquerque Field Office.
 7. OSM's records confirm that all fees for the Abandoned Mine Reclamation Fund have been paid. [UMC 786.19(h); verified as of May 17, 1984; personal communication with Joanna Sanchez, OSM Albuquerque Field Office.
 8. OSM records show that the applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act. [786.19(i); verified as of May 17, 1984; personal communication with Steve Martin, OSM Albuquerque Field Office.
 9. Coal mining and reclamation operations to be performed under the permit will not be inconsistent with other underground mines in the general vicinity of the Price River Mine Complex. [786.19(j)]

10. The applicant has provided evidence and OSM and UDOGM have found that there are no prime farmlands in the permit area. [UMC 786.19(1)]
11. Negative alluvial valley floor (AVF) determinations have been made for the drainages in the proposed permit area and life-of-mine area. Alluvial deposits along the perennial streams will be not be disturbed further by the continuance of mining operations. Agriculture that does occur downstream of the Price River Mine Complex typically consists of small areas that rely on surface water diversions from the Price River. The mine is not expected to affect this surface water source available to downstream users. [UMC 786.19(1)]
12. The proposed postmining land use for the permit area has been approved by UDOGM, OSM and BLM. [UMC 786.19(m)]
13. UDOGM and OSM have made all specific approvals required by the Act, the Utah regulatory program and the Federal Lands Program. [UMC 786.19(m)]
14. The proposed operation will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. [UMC 786.19(o); letter from U.S. Fish and Wildlife Service]
15. Procedures for public participation have complied with requirements of the Act, the Utah regulatory program, the Federal Lands Program, and Council on Environmental Quality regulations (40 CFR Part 1500 et seq). [30 CFR 741.21(a)(2)(ii); see Chronology of Events]
16. The applicant has complied with all other requirements of applicable Federal laws and either has or has applied for permits from the Environmental Protection Agency. [30 CFR 741.17(d)]



Administrator
Western Technical Center

Headquarters Reviewing Officer