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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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September 12, 1989

Mr. Vernal Mortensen  
Senior Vice President  
Coastal States Energy Company  
175 East 400 South, Box 3  
Salt Lake City, Utah 84111

Dear Mr. Mortensen:

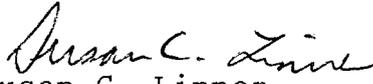
Re: Technical Deficiency Review, Five-Year Permit Renewal Package,  
Utah Fuel Company, Skyline Mine, ACT/007/005, Folder #2, Carbon  
County, Utah

The Division has completed a technical review on the Mining and Reclamation Plan (MRP) for the Skyline Mine submitted July 19, 1989 and updated through August 21, 1989. Deficiencies remaining in the MRP are delineated in the attached technical review document. Also attached is a general listing of maps which need additional work to be submitted in a final format.

We are still waiting for a submittal on Pond #2 (loadout pond), so there may be additional technical issues to be resolved once that submittal has been received and reviewed. A detailed analysis of the reclamation plan to determine the bond requirement will be done shortly. More information may be required to complete those calculations.

A response to the attached deficiencies by October 6, 1989, will keep the permit renewal process moving expeditiously. Please feel free to contact me if you need clarification or want to further discuss any of the deficiencies.

Sincerely,

  
Susan C. Linner  
Reclamation Biologist/  
Permit Supervisor

c1  
cc: G. Zumwalt, Skyline Mine  
L. Braxton  
B Team

BT45/308

# TECHNICAL DEFICIENCY REVIEW

Five-Year Permit Renewal  
Utah Fuel Company  
Skyline Mine  
ACT/007/005  
Carbon County, Utah

September 11, 1989

## UMC 817.13 Casing and Sealing of Exposed Underground Openings: General Requirements - JRH

Information regarding this rule is referenced to part 4.9 of the Mining and Reclamation Plan (MRP).

The operator has not adequately addressed the requirements of this section. The casing and sealing of monitoring and water wells is not included in the above referenced section.

In accordance with the requirements of the Utah Division of Water Rights, all monitoring and water wells must be abandoned in accordance with the Administrative Rules for Water Well Drillers. Abandonment of these wells must be under the direct supervision of a currently licensed water well driller. A report of abandonment should also be filed to DWR within 30 days of completion of the well abandonment procedures.

The operator needs to include in the text of the MRP that the temporary and permanent abandonment of water and monitoring wells will be in accordance with the State of Utah, Administrative Rules for Water Well Drillers, Division of Water Rights.

## UMC 817.14 Casing and Sealing of Exposed Underground Openings: Temporary - JRH

Information regarding the requirements of this section is referenced to section 4.9 of the MRP.

The operator has not adequately addressed the requirements of this section.

No discussion of the temporary abandonment of mine openings is found within the text of the MRP. In accordance with the requirements of this section, the operator must commit to effectively barricade and post each mine opening which is temporarily inactive and to periodically inspect and maintain these devices.

**UMC 817.15 Casing and Sealing of Exposed Underground Openings:  
Permanent - JRH**

Information regarding the requirements of these sections is found in part 4.9 of the MRP.

This section is not considered to be technically adequate. Although the gradient from the portals is down-dip, there is no conclusive information found within the MRP indicating that the mine workings will not eventually fill with water and discharge through at least one of the portal openings.

The operator must commit to the design and construction of hydrologic seals or drains to control the discharge of water from the mine workings in the event that such controls are necessary.

The above commitment is considered adequate and actual design of portal drainage control may be deferred until reclamation, when the likelihood of their use can be more readily and accurately determined.

The operator has committed to portal closure in accordance with 30 CFR 75.1711.

**UMC 817.42 Hydrologic Balance: Sediment Control - RPS**

The waste rock disposal schedule presented in Section 15 should show that the volume remaining in the pit at the end of life of the facility is adequate to contain the 25 yr. - 24 hr. precipitation event.

Small Area Exemptions. The Division has identified several areas that need to be included in the discussion beginning on page 3-26. For each area the discussion should include disturbed acreage, reference to a map, and alternative sediment control measure(s) proposed. These areas include:

1. Topsoil stockpile - upper north end.
2. South Fork inlet area - south end of coal storage pile.
3. Middle Fork inlet area - west end of coal storage pile.
4. South Fork breakout area - this area should also be depicted on an appropriate map.

The following areas have been included in the permit narrative, but need to be depicted on an appropriate map:

1. Railroad loadout area - 2.35 acres on north side of disturbed area.
2. Loadout area - South of truck dump area and UDD-1.

Additionally, the terminology used to describe the areas not reporting to a sedimentation pond should be revised in the text and on applicable maps to correspond to the Division's August 30, 1989 policy. A copy of this policy is enclosed for your reference.

#### **UMC 817.43 Hydrologic Balance: Diversions - RPS**

Culvert designs were based on open channel flow hydraulics. The culverts should be further evaluated for inlet/outlet control conditions to determine if those conditions limit the flow capacity.

The culvert design for the Eccles Creek crossing at South Fork did not include the watershed labeled "Eccles drainage at South Fork" on Plate 3.2.4-2 in the design flow calculation.

#### **UMC 817.44 Hydrologic Balance: Stream Channel Diversions - RPS**

The diversion at the waste rock area must be designed for a 100 yr. - 24 hr. event for final reclamation. Section 14 presents designs for a 10 yr. - 24 hr. event. Revised designs must be submitted.

#### **UMC 817.46 Hydrologic Balance: Sedimentation Ponds - RPS**

Division calculations show that the pond volume as presented in this section for the mine facilities sediment pond may be overestimated. At an elevation of 8579.6 feet the Division calculated a volume of approximately 375,000 cubic feet versus 412,300 presented by the applicant. Please check these values.

The text beginning on page 3-18 presents sediment pond volume and discharge values that differ from those in Section 7 of Volume 5. Please present correct values throughout the permit.

Page 5 of 6 in Section 7 contains a mathematical error in the calculation of pipe flow capacity. Weir and orifice flow calculations are correct. Please correct the pipe flow values and revise the stage - discharge curve as appropriate.

The sediment pond designs presented in Volume 5 for the loadout pond demonstrate the pond capacity may be too small. Revised designs are required.

Section 7, pages 7 and 8 labeled "barrel flow" should be removed from the permit. These pages have been removed from the Division's permit copies.

The certification report dated August 25, 1989 from Keith Zobell to Lowell P. Braxton must be incorporated into the MRP. This certification addresses the requirements of UMC 817.49 (h).

#### **UMC 817.52 Surface and Ground Water Monitoring - DWD**

In order to evaluate the ground water monitoring program with respect to ongoing mining operations the functional status of each well should be updated. A table should be developed to include all functioning wells. The table should indicate total depth drilled, total depth cased (feet), total depth measured (feet), the top of casing (elevation), top of the coal seam (elevation), depth to the coal seam (feet), depths and length of perforation.

#### **UMC 817.150-.156 Class I Roads - JRH**

Information regarding this section is referenced to part 4.20 and volume 5 of the MRP.

This section is not considered to be technically adequate. Class I roads require certification. A certification statement as to the design and the construction of all Class I roads must be incorporated into the text of the MRP.

The certification statement should state that the design and construction or reconstruction of Class I roads within the permit area are in accordance with UMC 817.151-.154, except to the extent that alternative specifications are used.

#### **UMC 817.180 Other Transportation Facilities - JRH**

This section is not considered to be technically adequate.

Information provided on the existing conveyor facilities and disturbed areas drawing is at such a small scale that it is difficult to determine the location of the disturbed areas, their slopes or extent. These facilities should be redrawn by the operator on a larger scale for presentation in the plan. This would also be of benefit if the operator submits designs for construction of the conveyor system, and for indication of reclamation treatments for those areas.

**UMC 817.181 Support Facilities and Utility Installations - JRH**

This section is not considered to be technically adequate.

Maps and drawings of the well houses provided in the plan are not of sufficient scale to show details of the facilities. Drawings of the well house areas should be resubmitted to clearly show the disturbed and permit areas, culverts, small area exemptions, road approaches, sediment control, etc. Culverts, roads, or any other facilities to remain as part of the post mining land use should also be clearly noted on these drawings.

**General - Maps and Plans - JRH/RPS**

The following maps require additional information as follows:

- 2.12.2-1            Add permit boundaries for all facilities.
- 3.2.1-1            This drawing requires certification, reference to maps containing cross sections, disturbed area boundary is mis-labeled as the permit boundary.
- 3.2.1-2            Refer to technical comments by Rick Summers regarding discrepancies on this drawing.
- 3.2.1-3            Small area exemptions need to be shown and included in the legend, no reference to cross sections indicated on the drawing, certification.
- 3.2.1-4            Update and replace according to loadout pond redesign.
- 3.2.1-4A           Update and replace according to loadout pond redesign.
- 3.2.3-2            Certification, scale. This map is sufficient for a conceptual location of the conveyor but is not considered as 'design' quality. The operator has committed however to submit designs prior to construction.

- 3.2.3-3 Certification, disturbed area acreages on well houses. This map is at a poor scale to show disturbed area boundaries for the facilities shown on the drawing and should be replaced by one with a more suitable scale. The water tank area is shown on maps 4.4.2-1E and F at a scale of 1"=100' which is more appropriate for the size of those facilities. The well houses could be included on this drawing at the same scale. The conveyor disturbed area and permit area boundary maps should be enlarged to at least 1"=200'
- 3.2.4-1 Certification, reference to plan drawing from which the profile was taken (Could be certified by reference to consultant's design report for these facilities?).
- 3.2.6-1D Reference culvert numbers in which the trash rack design is or will be installed.
- 3.2.6-2A to F Certification (Could be certified by reference to consultant's design report?).
- 3.2.8-2 Certification, scale, no reference to drawing from which the cross sections were taken, cross sectional information provided on this drawing is not representative of contour information provided on 4.16.1-1B.
- 3.2.11-1 Drawing needs notation that the entire area is considered as a small area exemption.
- 3.3.8-1 No scale, permit boundary is shown but no disturbed area boundary is indicated on the drawings.
- 4.2-1 Eliminate this drawing, or explain what the purpose of this drawing is.
- 4.4.2-1A Certification, provide disturbed area acreage on map, disturbed area boundary is mis-labeled as permit area, no north arrow.

- 4.4.2-1B Certification.
- 4.4.2-1B1 Certification.
- 4.4.2-1C Certification, erroneous contours on the southern side of the permit/disturbed area boundary, provide disturbed area acreages, ditch DU2 needs to be extended to the west to incorporate all of the disturbed area and report to the sediment pond, the notation on the map should include commitment to backfill DU2 in conjunction with the sedimentation pond, culverts are not labeled as permanent facilities for reclamation.
- 4.4.2-1D Certification, horizontal scale.
- 4.4.2-1E Certification, no disturbed or permit area boundaries, north arrows, provide disturbed area acreage on the drawing.
- 4.4.2-1F Certification, no disturbed or permit boundaries, provide disturbed area acreage on drawing.
- 4.16.1-1B No scale, no reference to cross sections indicated on the drawing, disturbed area boundary does not include the access road, no reference to the drawings for the access road, provide disturbed area acreages.
- 4.19.5-1 Certification.
- 4.19.5-2 Certification.
- 4.19.5-3 Certification.
- 4.19.5-4 Certification.