



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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April 14, 1993

TO: Daron Haddock, Permit Supervisor
FROM: Sharon Falvey, Reclamation Specialist *SF*
RE: MRP Renewal 1/4/93, Genwal Coal Company Review Crandall Canyon Mine, ACT/015/032, Emery County, Utah

Summary:

The Division received the Genwal's revised MRP on January 12, 1993. The revision incorporates the State Lease ML-21568 and ML-21569 amendment, previously submitted as Chapter 14, throughout the document.

The Operator has made significant surfacing changes since the last permit renewal. These changes may have affected the CN presented for the disturbed area however, no analysis of these changes were addressed.

The operator proposes to shot-crete certain areas of the site and to add a concrete pad and transformer. An amendment previously submitted for these changes was denied. The operator has identified these areas as proposed. This review does not include review of the proposed actions.

The reclamation portion of the plan has significant deficiencies that preclude a more thorough review.

R645-301-120

ANALYSIS:

Some of the design information from previously approved documents are not legible within the hydrologic design appendices.

Plate 5-10 should cross reference the map showing location of cross sections for road drainage

The Surface Disturbance Boundary presented on Plate 5-3 and Plate 7-5a do not correspond. The operator has not included the portable pump in the disturbed area boundary on Plate 7-5a. Map boundaries and other delineated areas should be consistent throughout the plan.

DEFICIENCY:

1. Provide clear legible design information.
2. Cross-reference the map showing location of cross



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sections for road drainage on Plate 5-10.

3. Provide Map boundaries and other delineated areas that are consistent throughout the plan.

R645-301-731.600. Stream Buffer Zones

ANALYSIS:

On page 5-6 the operator indicates the Buffer Zone markers will be erected as required by R645-301-731.600. The operator should reference page 3-9 and 3-10 and include information regarding the buffer zone variance including a description of the extent of the existing buffer zone. The operator should also provide a brief discussion on the area within the 100 ft. buffer zone as it relates to contemporaneous reclamation, SAE's and protection from re-disturbance during mining and reclamation activities.

DEFICIENCY:

1. Provide information on the variance from the 100 ft buffer zone. Provide a map which identifies the approved area of buffer variance. Include a discursion of the previously disturbed and reclaimed area within the 100 ft. buffer zone.

R645-301-713. Inspections

ANALYSIS

The operator references Section 5.14. This section includes a form for the operators inspections. However, the operator does not include other required monitoring for pond stability such as the piezometers monitoring and pond and pond clean out requirements for the clay liner etc.

DEFICIENCY:

1. The operator must include a commitment to summarize the monthly monitoring of the pond's piezometer within the annual report as well as, any clean out requirements to be reported during periods of sediment removal.

R645-301-724. Baseline

ANALYSIS:

Baseline information required by the stipulations for the

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State Lease addition resulted in assessing the flow regimen for Blind Canyon, Horse Canyons and upper Crandall Canyon. On page 7-65 the operator indicates the Stream Monitoring will cease at the end of 1992. Considering the operator has provided information on the stream through periods of drought, it would be prudent to continue the water collection information through 1993 at a minimum since the available water in the system is near normal. If the operator intends to propose mining under these reaches some sites should be maintained through mining for monitoring purposes.

The operator also indicates a determination will be made for the stream reaches exhibiting perennial flow. This determination must be made in coordination with the U.S.F.S. These requirements follow the request from the U.S.F.S memo dated February 28, 1991 pertaining to the State Lease application.

DEFICIENCY:

1. Present summary of baseline information demonstrating adequacy of current data. Summarize information and demonstrate that the monitoring points are no longer necessary or propose which monitoring points will be maintained for operational monitoring and why. Discuss how the data gathered describes the system considering the climatic regimen under which the data was collected. Assure coordination with the U.S.F.S.

R645-301-731.200 Water Monitoring

ANALYSIS:

The operator has not included the Cation Anion Balance in the list of monitoring parameters. The holding time on samples should be indicated and may be achieved by submitting time of sample collection and completion of the laboratory analysis.

DEFICIENCY:

1. Include Cation Anion Balance in the list of monitoring parameters. Provide a method to present holding time within the data analysis submittals.

R645-732.200 Sedimentation Pond

ANALYSIS:

The operators previous submittal includes a commitment for monthly monitoring to assure pond stability. If the operator proposes to change the monitoring to quarterly as is stated on page 7-67. The operator should include an analysis and reasoning

to justify the proposed change. If presented information demonstrates quarterly monitoring may be adequate it would be appropriate to increase the monitoring frequency at some point where the water approaches the 7764 ft. elevation.

The operator has not included the gravel filter liner in the pond Figure 7-4 A.

The operator indicates sediment removed from the pond will be initially stored in the location shown on Plate 5-3. That location could not be found on the referenced map. Information specifically identifying a disposal site should also be presented as well as, a commitment to submitting the sediment clean out requirements and test results to the Division.

The operator has increased the impervious area, and undisturbed area according to Plate 7-5C. The operator has not justified the CN's that were previously used for gravel surfacing in the design of the pond capacity. The operator should provide justification for the previous defined CN's and update information on Plate 7-5 C to accurately portray existing site conditions within the watershed boundaries.

The operator indicates the ponds do not meet the Criteria for MSHA regulations. The operator should clarify this statement.

DEFICIENCY:

1. Include an analysis of recorded data and justify the proposed monitoring change for the Pieziometers used to maintain bank stability.
2. Include the gravel lining in the bottom of the pond as previously approved Figure 7-4 A.
3. Provide the location for pond sediment removal as indicated in text. Identify the proposed permanent disposal site. Commit to submit sediment clean out test results to the Division.
4. Justify that the existing pond runoff containment volume is adequate considering the disturbed area CN's used to size the pond were for gravel surfacing which is now pavement and contains an increase in area of disturbance. Accurately portray existing site conditions within the watershed boundaries on Plate 7-5C.

R645-301-731 General Requirements

ANALYSIS:

More detail is needed for the proposed oil skimmer on the in mine sump. If the skimmer is of the same construction as that identified on the sediment pond it will not function correctly

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with the water level above the inlet as indicated on the diagram. The Channel indicated to be collecting water from the substation should be referred to by label in text. The berm identified in text is not shown on the drainage plan. No designs for the berm are presented.

DEFICIENCY:

1. Provide detail demonstrating the proposed oil skimmer on the in mine sump functions adequately.
2. Provide designs and labels for all berms and water conveyance features within the minesite.

R645-301-740 Design Criteria

ANALYSIS:

The SAE areas identified on Plate 7-5 no longer correspond to the boundaries presented on Plate 7-5A. The operator shows portions of SAE 3 being reconfigured in the reclamation phase therefore, the area can not be considered an SAE. The operator should distinguish between SAE and alternate sediment control areas.

DEFICIENCY:

1. Distinguish between SAE and alternate sediment control areas (ASCA). Analyze the SAE and ASCA according to current site configuration.

R645-301-760 Reclamation

ANALYSIS:

The operator has designed channels for reclamation that do not follow the contours of the proposed reclamation grading. RD-1 flows across rather than with the downstream gradient. The operator must correct the grading contours or provide a flow pattern that is not opposing the natural flow patterns. The operator shows drainage over the re-contoured pad area draining in an opposing direction to RD-2. The operator has not provided for adequate drainage points across the road. The operator should consider retaining a portion of culvert C-2 that flows under the road and sending drainage from RD-4 under the road at that point rather than sending it further along the road.

The operator must demonstrate that the Pond will meet the requirements of sediment pond design during the reclamation phase. The operator needs to supply watershed maps for reclamation phase drainage. The operator should be sure that adequate drainage designs are provided for the contributing flow from an area.

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The operator needs to provide designs for Alternate Sediment Control during Phase II reclamation. These designs will include analysis of the proposed sediment controls including a justification that best technology currently available is being used, demonstrate that sediment yields from the reclaimed area are minimized, provide methods of construction and maintenance and, depict locations of alternate sediment controls.

The operator must demonstrate that the retention of the proposed culvert(s) is in accordance with the AOC variance requirements and post mining land use requirements.

DEFICIENCY:

1. Correct the grading contours or provide flow patterns for reclamation ditches that are not opposing normal flow patterns.
2. Provide for adequate road drainage road.
3. Demonstrate that the Pond will meet the requirements of R645-301-732.100 during the reclamation phase. Supply watershed maps for reclamation phase drainage. Demonstrate that adequate drainage designs are provided for the flow contributing from a watershed area.
4. Provide designs for Alternate Sediment Control during all Phases of reclamation where required. Design information should include justification that best technology currently available is being used, a demonstration that sediment yields from the reclaimed area are minimized, the methods of construction and maintenance and, mapped locations of alternate sediment controls.
5. Demonstrate that the retention of the proposed culvert(s) is in accordance with the AOC variance requirements and meets post mining land use requirements.

cc: Mr. George Morris, Manti-La Sal National Forest
Randy Harden
Jim Smith