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

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TO: File

THRU: Daron Haddock, Permit Supervisor DRH

FROM: Wayne H. Western, Senior Reclamation Specialist WHW

RE: Clean Coal Stock Pile Area Expansion, Cyprus Plateau Mining, Willow Creek, ACT/007/038-97I, File #2, Carbon County, Utah

Summary:

On September 30, 1997, the Permittee for the Willow Creek Mine submitted amendment 97I that proposed to expand the clean coal stock pile area. The expansion of the clean coal stock pile would increase the disturbed area by 3.9 acres. The Permittee also requests to make changes to the reclamation of the School House Canyon refuse site and reclamation of the pre-SMCRA cut slopes.

The information in the engineering section of the amendment is inadequate. Prior to approval the Permittee must supply the Division with the information requested in this memo.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

PERMIT AREA AND PREMINING CONDITIONS

Regulatory Requirements: R645-301-521.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Contour Maps

Map 3.4-8, Operations Contour Map, shows the expanded disturbed area boundary. Map 3.4-8 does not show the contours in and around the proposed expansion to the disturbed area nor are the permit boundaries shown. R645-301-521.150 and R645-301-521.151 deal with contour maps and the regulations state:

> These maps will clearly indicate sufficient slope measurements or surface contours to adequately represent the existing land surface configuration of the proposed permit area for the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES and the area affected by surface operations and facilities for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES measured and recorded according to the following:
>
> Each measurement will consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed, or, where this is impractical, at locations specified by the Division.

The Permittee considered showing the contours elevations in and around some parts of the permit boundary as impractical. Since those areas they wish to exclude were outside the disturbed area boundaries the Division agreed with the Permittee.

The Permittee wants to include some of the areas that were excluded from the contour elevation requirements into the disturbed area. The Division considers having contour elevations for all parts of the disturbed area important. Prior to expanding the disturbed area boundary the Permittee must show the contour elevations for all areas in and around the disturbed boundary.

Findings:

The Permittee failed to meet the requirements of R645-301-150 and R645-301-151 by not showing the angle of inclination (contour elevations) along the prevailing slope extending 100 linear feet above and below the area to be disturbed.

OPERATIONAL PLAN

OPERATIONAL ENGINEERING

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528, -301-521, -301-526.

Mining Operations And Facilities

Type and Method of Mining Operations

Analysis:

Figure 1, Soil Sample Locations map, shows the maximum extent of the expanded clean coal pile. The east boundary of the coal pile is also the permit and disturbed area boundary. The Permittee does not discuss how they will prevent coal from going outside the permit boundary.

Under R645-301-521.180 and R645-301-521.190 the Permittee is required to supply the Division with information about the support facilities. The Division needs to know what type of facilities the Permittee will use to prevent coal from going outside the permit boundary.

Findings:

The Permittee failed to meet the requirements of R645-301-521.180 and R645-301-521.190. Prior to approval of 97I the Permittee must describe the support facilities that will be used to keep coal from going outside the permit boundary.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Analysis:

In Section 3.4-6(1) of amendment 97I under the headings of Phase I Reclamation and Demolition the Permittee changes the commitment to removal all the existing structures to a commitment to remove all existing aboveground structures. The Division is concerned about changing the commitment to remove all above ground structures. Footings and foundations could be considered below ground structure and therefore exempt from demolition and removal.

The Permittee changes another reclamation commitment from removing all piping in the permit area to removing all piping in the permit area to the extent practical.

The Division is aware that there are underground utilities in the permit area and the removal of those utilities is not required under reclamation. The Division realizes that in some cases leaving pipes in place will result in less environmental harm than removing the pipes. Therefore, the Division does not expect the Permittee to removal all underground utilities as part of reclamation. To avoid confusion the Permittee needs to list those underground utilities that will be left in place and describe why those utilities should be left in place.

Findings:

The Permittee failed to meet the requirements of R645-301-541.200 by not committing to remove all underground structures unless approved for the postmining land use.

The Permittee failed to meet the requirements of R645-301-121.100 by not stating in a clear and concise manner what underground utilities they plan on leaving as part of the postmining land use.

RECLAMATION ENGINEERING PLAN

Timetable

Analysis:

In Section 3.4-6(1) of amendment 97I the Permittee states:

> Reclamation of the School House Canyon refuse site will begin as soon as practical after the canyon is filled to its design capacity.

In Section 3.4-4(1) of the MRP the Permittee states:

> Reclamation of the School House Canyon refuse site will begin as soon as the canyon is filled to its design capacity.

The Permittee added the word practical to the timetable for reclamation of the School House Canyon refuse site. The Division realizes that some phases of reclamation can only be completed during certain times of the year. Therefore, the Division approves the Permittee's request to remove the unrealist commitment to begin reclamation as soon as the canyon is filled. The term as soon as practical is vague. The Permittee needs to make a specific commitment as to when reclamation work will begin. The Permittee could state that reclamation would be completed with a specific time interval after the refuse site is filled.

Findings:

The Permittee failed to meet the requirements of R645-301-121.100. Prior to approval the Permittee must specify when reclamation of the School House Canyon refuse site will begin and be completed.

Backfilling and Grading

Analysis:

In Section 3.4-6(1) under the heading of Grading the Permittee states:

> A comparison of Maps 3.4-1 and 3.4-10 indicates that all post-SMCRA and most pre-SMCRA cut slopes will be backfilled to the extent practical during reclamation. Those pre-SMCRA cut slopes which cannot practically be reclaimed are identified on Map 3.4-9. The cut slopes were analyzed for stability in their present configuration and for long-term retention following reclamation. This analysis is presented in Appendix 3.4H, with the cross sections used to analyze the slopes shown on Map 3.4-8.

Appendix 3.4H consists solei of a title page. The Permittee must include the complete slope stability analysis in the amendment.

The Permittee must also justify why some cut slope will remain after final reclamation. The Division needs to document why reclamation of some cut slopes is impractical.

Findings:

The Permittee failed to meet the requirements of R645-301-121.200 by not being clear and concise about the location of the slope stability analysis of the slope stability analysis for the cut slopes that will remain after final reclamation.

The Permittee failed to meet the requirements of R645-301-121.200 by not being clear and concise about why some cut slope must remain after final reclamation.

Bonding and Insurance Requirements

Determination Of Bond Amount

Analysis:

The Permittee did not supply the Division with updated reclamation cost information. Under the requirements of R645-301-830.140 the Permittee is required to supply the Division with a detailed estimated cost, with supporting calculations for the reclamation cost estimate.

Findings:

The Permittee did not meet the requirements of R645-301-830.140. Prior to approval the Permittee must supply the Division with detailed reclamation cost estimates that include the expanded area of the clean coal stockpile.

Recommendation:

Prior to approval the Permittee must comply with all the above mention deficiencies.