



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

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June 16, 1995

TO: FILE

TO: Daron Haddock, Permit Supervisor

FROM: Henry Sauer, Senior Reclamation Soils Specialist *HS*

RE: Proposed Willow Creek Refuse Removal Project
(Major Revision 95-B), AMAX Coal Co., Castle
Gate Mine, ACT/007/004, Folder #2, Carbon
County, Utah

SYNOPSIS

The permittee submitted a proposal (received March 16, 1995) for the removal of underground development waste from the AML-Willow Creek Reclamation Project. The Cyprus Plateau Mining Corporation has submitted a separate mining and reclamation application for the Willow Creek Mine. To facilitate the development of the Willow Creek Mine, underground development waste disposed of on site by the AML Program will be reexcavated and placed in the Schoolhouse Refuse Disposal Facility.

The forthcoming analysis focuses on the removal and disposal of underground development waste. **The review does not consider the reclamation plan for the Schoolhouse Refuse Disposal Facility and the Willow Creek Mine.** These reclamation plans will be separately reviewed and commented on during the review of the Willow Creek Mine Mining and Reclamation Application.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22

Minimum Regulatory Requirements:

Topsoil removal and storage.

All topsoil shall be removed as a separate layer from the area to be disturbed, and segregated. Where the topsoil is of insufficient quantity or of poor quality for sustaining vegetation, the selected overburden materials approved by the Division for use as a substitute or supplement to topsoil shall be removed as a separate layer from the area to be disturbed, and segregated. If topsoil is less than 6 inches thick, the operator may remove the topsoil and the unconsolidated materials immediately below the topsoil and treat the mixture as topsoil.

The Division may choose not to require the removal of topsoil for minor disturbances which occur at the site of small structures, such as power poles, signs, or fence lines; or, will not destroy the existing vegetation and will not cause erosion.

All materials shall be removed after the vegetative cover that would interfere with its salvage is cleared from the area to be disturbed, but before any drilling, blasting, mining, or other surface disturbance takes place.

Selected overburden materials may be substituted for, or used as a supplement to, topsoil if the operator demonstrates to the Division that the resulting soil medium is equal to, or more suitable for sustaining vegetation than, the existing topsoil, and the resulting soil medium is the best available in the permit area to support revegetation.

Materials removed shall be segregated and stockpiled when it is impractical to redistribute such materials promptly on regraded areas. Stockpiled materials shall be selectively placed on a stable site within the permit area; be protected from contaminants and unnecessary compaction that would interfere with revegetation; be protected from wind and water erosion through prompt establishment and maintenance of an effective, quick growing vegetative cover or through other measures approved by the Division; and, not be moved until required for redistribution unless approved by the Division.

Where long-term surface disturbances will result from facilities such as support facilities and preparation plants and where stockpiling of materials would be detrimental to the quality or quantity of those materials, the Division may approve the temporary distribution of the soil materials so removed to an approved site within the permit area to enhance the current use of that site until needed for later reclamation, provided that: such action will not permanently diminish the capability of the topsoil of the host site; and, the material will be retained in a condition more suitable for redistribution than if stockpiled.

The Division may require that the B horizon, C horizon, or other underlying strata, or portions thereof, be removed and segregated, stockpiled, and redistributed as subsoil in accordance with the above requirements if it finds that such subsoil layers are necessary to comply with the revegetation.

Analysis:

R645-301-232.500 Subsoil Segregation

Through personal communication with AML staff, it has been determined that approximately 15,000 cubic yards of soil material overlies the underground development waste targeted for removal. This equates to approximately 2-3 feet over the underground development waste. Based on a cursory review of the Willow Creek Mining and Reclamation Plan it appears that the availability of suitable substitute topsoil for final reclamation is limited.

Findings:

Information presented in the plan does not meet the minimum requirements of this section.

The Division finds that the soil material covering the underground development waste is necessary to comply with the revegetation requirements. Therefore, prior to underground development waste removal, all the soil material (approximately 15,000 cubic yards) must be separately removed, stockpiled and

redistributed at the time of final reclamation to comply with the revegetation requirements of R645-301-353 through R645-301-357.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.22

Minimum Regulatory Requirements:

Each application shall include geologic information in sufficient detail to assist in: determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary; determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the coal seam to be mined; determining whether reclamation can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and, preparing the subsidence control plan.

Analysis:

Appendix 12-6-2 contains the results chemical analyses performed on underground development waste drill hole samples. However, identification of these data as it relates to source and location is not clear. Identification of the sample site location, sample depth increment and solid matrix classification of the samples collected is necessary for interpretation of the information provided.

Findings:

Information presented in the plan does not meets the minimum requirements of this section.

The permittee must clearly identify the sample site location, sample depth increment and solid matrix classification of the underground development waste samples collected.