0020

ACT/007/034
File #2

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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April 8, 1988

TO: File

FROM: James S. Leatherwood, Reclamation Soils Specialist

RE: Technical Analysis Review, Banning Loadout, Soldier Creek Coal Company, ACT/007/034, Folder #2, Carbon County, Utah

The above-referenced plan, submitted January 4, 1988, has been reviewed and found not to be technically adequate. The following items should be addressed.

UMC 817.24 Topsoil: Redistribution - JSL

Due to the high risk of soil erosion, the redistributed soil should not be disced to the extent proposed (i.e., 1" or less). The material should be left in a rough state to hinder potential erosion and increase the water infiltration. The redistributed soil should not be disced unless the organic amendment will be tilled into the soil.

UMC 817.48 Hydrologic Balance: Acid-Forming And Toxic-Forming Materials - JSL

This section is not technically adequate. The applicant has committed to analyze for a variety of potential toxic inorganics. According to the National Research Council, Research in the Western States, and the Division's current findings for Utah, the following parameters are of greatest concern in coal development: acid-base potential; total non-sulfate sulfur; total organic sulfur; percent calcium carbonate; water extractable boron and selenium; texture; pH; sodium adsorption ratio; nitrate-nitrogen; electrical conductivity; copper; molybdenum; and arsenic. Other possible toxic contaminants such as barium, cadmium, lead, mercury, and zinc are not typical problems in Utah coal development but should be analyzed to verify the extent of availability.

Samples for the parameters of concern should be collected as outlined in the plan. Sampling for the other possible toxic contaminants should be collected when the general location of mining operations changes.

The analysis for most of the above-mentioned parameters should not, generally, follow EPA toxicity test procedures as outlined in the Permit Application Package (PAP). The analysis should follow the "Standard Methods of Analysis", American Society of Agronomy, Mono. No. 9, 1982, procedures for all parameters except the Acid-Base Potential. The Acid-Base Potential should be calculated according to USEPA document 600/2-78-054, Method 3.2. These methods are the most commonly used in coal development overburden physio-chemical characterization.

UMC 817.71 Disposal Of Excess Spoil And Underground Development Waste: General Requirements - JSL

This section is not technically adequate. A plan for the location and disposal of sediment pond waste must be included within the PAP. The plan shall include a determination as to the potential acid- or toxic-forming potential of the sediment waste if the outcome of the coal acid- or toxic-forming analysis is positive. If the material is an acid- or toxic-forming material, then the PAP must include plans to the extent and treatment of such material as required by UMC 817.48 and UMC 817.103.

UMC 817.89 Disposal Of Non-Coal Waste - JSL

This section is not technically adequate. All designated disposal non-coal waste must be disposed of in an approved sanitary landfill. The PAP must identify the approved landfill in which the non-coal waste will be transported to and disposed of.

UMC 817.101 Backfilling and Grading: General Requirements - JSL

This section is not technically adequate. To determine the proper bonding calculations, a mass balance table of the cut and fill required during reclamation operations should be included within the PAP. The estimated volume of material should include the total for both cut and fill in cubic yards.

jr
cc: B Team
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