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

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TO: File
February 23, 1994
TO: Pamela Grubaugh-Littig, Permit Supervisor
FROM: Henry Sauer, Senior Reclamation Soils Specialist *HS*
RE: Tank Seam Proposal, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Folder #2, Emery County, Utah

SYNOPSIS

The permittee has responded (received December 3, 1993) to the Division's denial of the initial proposal to construct an access road and portal facility in order to mine the Tank Seam.

The Tank Seam proposal, as submitted, is recommended for denial as provided under R645-300-131.100. The permittee has not adequately demonstrated compliance with the Utah Coal Mining Rules.

The forthcoming analysis attempts to illuminate the primary reasons for this writer's recommendation of denial. Minor issues were noted during the review but were not deemed pertinent at this juncture.

ANALYSIS

R645-301-242. Soil Redistribution & R645-301-244. Soil Stabilization

The permittee has not adequately demonstrate that redistribution and protection of the soils resource on the regraded surfaces is feasible. The geotechnical report by Dames and Moore with regards to the surface stability of the constructed road fills states the following " During thunder storms or other wet periods small localized minor slides and sloughs should be anticipated along the slopes". Topsoil slides, sloughs and surface erosion would likely be similar to that described above and/or of greater magnitude with uncompacted topsoil placed on constructed reclamation fills. The proposed



topsoil redistribution plan does not meet the requirements of these sections of the Utah Coal Mining Rules and R645-301-553.230, R645-301-535 et. seq.

The proposed topsoil stockpile design (Plate 8-6) depicts 1H:1V side slopes. The stockpile design does not meet the requirements of the this section of the Utah Coal Mining Rules.

R645-301-537. Regraded Slopes

According to the soil survey information provided by the permittee (Plate 8-1, Appendix 8-B) the following profile conditions exists within the excavated portion of the proposed access road and the Tank Seam portal pad.

- 1) Approximately 3 acres of disturbance will be created.
- 2) Approximately 0.8 acres of the proposed disturbance is within the Travessilla-Rock Outcrop-Strych Complex (TR).
 - i) Seventy five percent of this map unit is composed of talus, rock outcrop or shallow soils (i.e. Travesilla very bouldery fine sandy loam, 14 inches deep) over bedrock.
 - ii) Fifteen percent of this map unit is composed of deep soils (i.e. Strych very bouldery loam, 60 inches deep) of which 10 % (by volume) of the profile is composed of particles greater than 3 inches in diameter (i.e. cobble size or greater).
- 3) Approximately 2.2 acres of the proposed disturbance is within the Podo-Datino-Rock Outcrop Complex (PDR).
 - i) Fifty five percent of this map unit is composed of rock outcrop or shallow soil (i.e. Podo very stony fine sandy loam, 12 inches deep).
 - ii) Thirty five percent of this map unit is composed of deep soils (i.e. Datino very stony fine sandy loam, rock outcrop is present below 60 inches) of which 26 % (by volume) of the profile is composed of particles greater than 3 inches in diameter.

The permittee's proposal includes designs to place the majority of the excavated material into constructed fills during operations and at the time of final reclamation. As stated in the conclusion and recommendation section of the geotechnical report (slope stability analysis) by Dames and Moore (September 16, 1993), "The fill material should be compacted in lifts not exceeding 8-inches in depth and all rock fragments cobble size and larger (i.e. 3 inches diameter or greater) should be removed from the fill". The majority of the material excavated during the construction of the road will be greater than three inches in

Page 3
Tank Seam II
ACT/015/025
February 23, 1994

diameter and will not meet the maximum size criteria for fill material. Therefore, excess spoil will be created, for which there is currently no plan to address the requirements of R645-301-528. 310 Excess Spoil and insufficient quantities of suitable material (i.e. particle size < 3 inches diameter) will exist for the construction of stable fills.

R645-301-553. Backfilling and Grading

The proposed post-mining topography map (Plate 3-2E) depicts topographic feature which currently exist. Numerous portions of the reclaimed surface as depicted on Plate 3-2E would be nearly vertical. Sections of the proposed post mining topography are equal to or steeper than the constructed road fills. The proposed post mining topography does not meet the requirements of this section of the Utah Coal Mining Rules.

RECOMMENDATION

The Tank Seam proposal, as submitted, is recommended for denial as provided under R645-300-131.100. The permittee has not adequately demonstrated compliance with the Utah Coal Mining Rules.

CC: Jesse Kelly, DOGM
Tom Munson, DOGM
Susan White, DOGM