

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

May 3, 2007

TO: Internal File

THRU: Jerriann Ernstsens, Team Lead

FROM: James D. Smith, Environmental Scientist - Hydrology *JS 05/09/07*

RE: Deer Creek Mine, Removal of Remainder of Silt Fencing, PacifiCorp, Deer Creek Mine, Task ID #2774

SUMMARY:

In an amendment cover letter dated March 26, 1997, Energy West requested that the silt fence at the toe of fill slopes along the Deer Creek Mine Waste Rock Disposal Site access road be removed. That proposed amendment referenced a cover comparison study, conducted August 28, 1995 by Mt. Nebo Scientific Inc. The report documents that the total ground cover of the revegetated fill slopes of the access road at the waste rock site was obviously much greater than the cover of the reference area, and concludes, "It is therefore probable that erosion of the reseeded fill slopes does not exceed the erosion for the adjacent slopes of the native plant communities."

The Division (hydrologist Steve Johnson and biologist Susan White) conducted a visual evaluation of the vegetative cover along the road in the summer of 1996. The Division identified areas along the access road where revegetation appeared sufficient to allow removal of the silt fence. The Division identified other areas where revegetation appeared deficient and required that the silt fence be retained at those areas.

In an amendment approved April 9, 1997, the Permittee included silt fence protection along the toes of the fill at the areas of concern. Mt. Nebo Scientific's March 22, 1997 report on the August 1995 vegetative cover study was inserted in the MRP as Appendix XIII.

In the cover letter to this proposed amendment, the Permittee states that they have found that portions of the silt fence have been trampled by animals, damaged by wind, and degraded by sunlight. The Permittee opines that replacing these portions of the fence would disturb soils that have been consolidated for many years, and that the vegetation and other cover is adequate to

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protect the soil and minimize sediment loss. Instead of replacement or repair, the Permittee proposes the removal of all silt fencing: the material would be cut along the ground line or removed completely where possible, and the supporting posts pulled. Photographs of some of the sections proposed for removal, along with areas where silt fence was removed previously, were included with the cover letter.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Sediment Control Measures

The cover comparison study in Appendix XIII, conducted August 28, 1995 by Mt. Nebo Scientific Inc. (report dated March 22, 1997), documents that the total ground cover [vegetation, litter, and rock] of the revegetated fill slopes of the access road at the waste rock site was obviously much greater than the cover of the reference area. The data show:

	Fill Slopes	Cut Slopes	Reference Area
Mean Cover - Living	38.33%	30.83%	38.93%
Mean Cover - Total	74.17%	40%	54.83%

The report concludes, "It is therefore probable that erosion of the reseeded fill slopes does not exceed the erosion for the adjacent slopes of the native plant communities."

Findings:

Hydrologic Operations Information is sufficient to meet the requirements of the R645 Rules.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

The proposed amendment includes a draft version of Plate 4-5, with proposed changes (deletions) highlighted in yellow.

Findings:

Maps, Plans, and Cross Sections of Mining Operations are sufficient to meet the requirements of the R645 Rules.

RECOMMENDATIONS:

This amendment should be approved