



State of Utah

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December 8, 1997

TO: File

THRU: Daron Haddock, Permit Supervisor *DRH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: Refuse Basin Mining & Coal Plant Operation, Nevada Electric Investment Company, Wellington Preparation Plant, ACT/007/012-97H, Folder #2, Carbon County, Utah

SUMMARY:

NEVADA ELECTRIC INVESTMENT COMPANY has submitted an amendment to allow Covol Technologies, Inc., to reclaim coal fines from the existing refuse-tailings impoundments.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

Analysis:

The 97H amendment, contains soil resource information for three separate areas that will be disturbed in conjunction with the refuse-basin mining and wash plant operations. Information supplied updates the MRP, Section 2.22 as the 8th sampling period. Figure 2.40-1 illustrates the three areas and soil sampling locations as follows:

- Coal Fines Wash Plant - Vegetation Test Plots
- Flotation Cell Pad - Upper Gerst Soils Knoll and Side slopes
- Slurry Feed Tank Pad - Lower Gerst Soils Area

Coal Fines Wash Plant - Vegetation Test Plots

The old vegetation test plots were sampled on July 17, 1997. The test plots consist of 6 to 12 inches of topsoil cover placed either over coarse-wash coal refuse or directly over the fine-wash refuse. Two pits (TP #1 and #2) were dug to obtain soil and coarse-wash coal refuse samples for analysis. No profile descriptions were obtained other than to note the thickness of the soil treatments. Analysis results of the topsoil showed elevated levels of Boron (12-14 mg/Kg) which exceed DOGM's guidelines for topsoil and overburden (see Table 2.22-2). As a note, both the coarse-wash refuse and fine-wash refuse exceeded DOGM's guidelines for selenium and boron.

Flotation Cell Pad - Upper Gerst Soils Knoll and Side slopes

A soil survey was conducted on August 12, 1997, for the upper small knoll and associated Side slopes. This top, flat area appears to have been previously disturbed and altered by removal of soil materials since the Gerst soil was uncharacteristically shallow. Four pits were logged (COVOL #1 thru 4) and excavated to 60 inches with profile descriptions; pits 1 and 2 were located on top with pits 3 and 4 placed on the side slopes (see Figure 2.40-1). Complete soil profile descriptions are provided for each of the four pits. Composite samples were taken for Pits 1 and 2; physical and chemical analyses are provided in Table 2.22-1. The soils meet all DOGM parameters for topsoil and overburden.

Slurry Feed Tank Pad - Lower Gerst Soils Area

A fifth soil pit (COVOL #5) was surveyed in the slurry feed tank pad area. This area is also situated in the Gerst-Stormitt-Badlands soil association (NRCS Map Unit 35). A complete soil profile description for Pit #5 is also given.

Findings:

The requirements of this section meets the regulatory requirements.

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

The 97H amendment, contains soil operation's information for three separate areas that will be disturbed in conjunction with the coal fines wash plant. Operational soil's issues are discussed as follows:

- Coal Fines Wash Plant
- Flotation Cell Pad
- Slurry Feed Tank Pad

Coal Fines Wash Plant

Topsoil materials from the test plots will not be salvaged because the Boron levels (12 to 14 mg/Kg) exceed DOGM's guidelines.

Flotation Cell Pad

Soil resource data indicate that five inches of salvageable topsoil is available from the 8000 ft² pad area, or approximately 123 yd³ of topsoil. No soil salvage occurred on the steep Side slopes below the flotation cells.

Slurry Feed Tank Pad

Soil salvage is based on soil resource information for the slurry feed tank pad area. Twelve inches of soil from the 1600 ft² pad results in 59 yd³ of topsoil salvage.

Findings:

The requirements of this section meets the regulatory requirements.