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

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July 17, 1997

TO: Folder #2

THRU: Joe Helfrich, Permit Supervisor *JK for JH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: Modular Coal Preparation Plant, NEICO, Wellington Prep Plant, ACT/007/012-97D, Folder #2, Carbon County, Utah

**ENVIRONMENTAL RESOURCE INFORMATION  
SOILS RESOURCE INFORMATION**

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

**Analysis:**

In order to reclaim coal fines from the existing fine refuse ponds, NEICO has submitted a minor amendment to allow Covol Technologies, Inc., to construct a modular coal fines wash plant, power lines and water lines in the coal refuse ponds area.

The amendment is incomplete. In order for the Division to accurately determine reclaimability of the modular coal processing site, the permittee must provide the following environmental soils resource information:

- Soil Survey - Provide adequate soil survey information.
- Soil Characterization - The soil survey will meet the standards of the National Cooperative Soil Survey.
- Substitute Topsoil - Proved chemical and physical characterization.
- Vegetation Test Plots - Evaluate soils within the vegetation test plots.

**Soil Survey - Provide adequate soil survey information.** The submittal needs to provide an adequate soil survey of the surface impacted areas, including soil borrow areas, associated with the modular coal processing plant. The survey should include all undisturbed and disturbed soils and include a detailed soils map delineating the different soils, soil

identification, description and productivity.

Information must be presented accurately and precisely for the purpose of ascertaining soil salvage with respect to location, depth and volumes of soil.

**Soil Characterization - The soil survey will meet the standards of the National Cooperative Soil Survey.** The survey will meet the standards of the National Cooperative Soil Survey.

**Substitute Topsoil - Proved chemical and physical characterization.** Within the immediate surface disturbed area, all overburden which will be used as substitute topsoil during reclamation must be characterized as outlined by the Division's guidelines for topsoil and overburden<sup>1</sup>.

**Vegetation Test Plots - Evaluate soils within the vegetation test plots.** Sample and analyze the soil treatments within the vegetation test plots for the purpose of closure. Characterize the soil samples for pH, EC, SAR, Se, and B as outlined by the Division's guidelines for topsoil and overburden<sup>1</sup>.

**Findings:**

The permittee must provide the following, prior to approval, in accordance with the requirements of:

**R645-301-220 and R645-301-120,** Provide current, complete and concise environmental soil resource information as explained in the above analysis section.

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<sup>1</sup>Leatherwood, J., and Duce, D., 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah Department of Natural Resources, Division of Oil, Gas and Mining.

## **OPERATION PLAN TOPSOIL AND SUBSOIL**

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

### **Analysis:**

The amendment is incomplete. In order for the Division to accurately determine reclaimability of the modular coal processing site, the permittee must provide the following operation plan information concerning soil handling:

- Soil removal and salvage
- Topsoil substitutes and supplements
- Soil storage

**Soil Removal and Salvage.** Describe the methods for removing and storing topsoil, subsoil, and substitute topsoil. The rationale for salvage should be correlated with the soil resource information and soil types. Salvage methods should include exact salvage areas, acreage, salvage depth, volumes, soil segregation, timing, and soil borrow areas.

If the topsoil, subsoil, and/or substitute topsoil are deficient and not available as shown by the soil environmental resource section, then the operator will, as a condition of the permit, be required to import soil as borrow to achieve reclamation success.

**Topsoil Substitutes and Supplements.** Selected overburden material may be substituted as topsoil if the operator can demonstrate to the Division that the resulting soil medium is equal to, or more suitable for sustaining vegetation than the existing soil materials. Suitability will be based on the Division Guidelines for Topsoil and Overburden<sup>1</sup>.

**Soil Storage.** Narrative that describes the construction, location, modification, use and maintenance of topsoil handling and storage areas.

### **Findings:**

The permittee must provide the following, prior to approval, in accordance with the requirements of:

**R645-301-230**, Operation Plan details as explained in the above analysis section.

## RECLAMATION PLAN TOPSOIL AND SUBSOIL

**Regulatory Reference:** 30 CFR Sec. 817.22; R645-301-240.

### **Analysis:**

The amendment is incomplete. In order for the Division to accurately determine reclaimability of the modular coal processing site, the permittee must provide the following reclamation plan information concerning soils:

- Soil redistribution
- Soil nutrients and amendments
- Soil stabilization

**Soil Redistribution.** Include details for soil redistribution at reclamation. Soil redistribution will be correlated with removal of the modular coal processing plant and regrading to approximate original contour. Soil replacement will achieve a uniform, stable thickness that is consistent with postmining land use and drainage.

If the soil overlays toxic and/or acid forming material, then the thickness will be a minimum of four feet.

**Soil Nutrients and Amendments.** Nutrients and amendments will be applied to the initially redistributed soil to help establish vegetation. Nutrients and amendment application rates will be base on soil sampling and testing at reclamation time.

**Soil Stabilization.** Protect the exposed soil surface from wind and water erosion. Apply mulch and other soil stabilization practices prior to vegetation establishment. Maintain the soil surface during revegetation.

### **Findings:**

The permittee must provide the following, prior to approval, in accordance with the requirements of:

**R645-301-240 and R645-301-553.250,** Reclamation plan details as explained in the above analysis section.