



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

Michael O. Leavitt
 Governor

Ted Stewart
 Executive Director

James W. Carter
 Division Director

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

November 7, 1997

TO: File

THRU: Joe Helfrich, Permit Supervisor *JH*

FROM: Robert Davidson, Soils Reclamation Specialist *RAD*

RE: NOV N97-45-1-1 Amendment, Horizon Coal Corporation, Horizon Mine,
 ACT/007/020-97F, Folder #2, Carbon County, Utah

SYNOPSIS:

Horizon Coal Corporation submitted an amendment on 11/3/97 for abating the Notice of Violation N97-45-1-1. However, information contained in the N-97-45-1-1 amendment is not sufficient and maps are not ready for review. Therefore, the amendment is found deficient and abatement is still pending.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

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

Analysis:

Sampling and characterization of imported topsoil resources is not contained in the amendment. Imported topsoil from outside the disturbance area needs to be sampled and characterized according to the Division's guidelines for topsoil and overburden.¹

¹ Leatherwood, James, and Dan Duce. 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. Salt Lake City, Utah.

Findings:

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-223 and R645-301-120. Imported topsoil from outside the disturbance area needs to be sampled and characterized according to the Division's guidelines for topsoil and overburden.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

The operation plan needs additional information as follows to meet the remedial action requirements for abating N-97-45-1-1:

(1) Figure 8-2, Growth Medium Removal Locations, has been revised to show Area 12. Area 12 has not been approved for topsoil removal, has no bearing on N-97-45-1-1, and therefore Figure 8-2 needs no revision in connection to N-97-45-1-1.

(2) Plate A, Appendix 8-1 has several problems that need to be rectified:

- The map is not certified by a Professional Engineer.
- The purple region, interim soil placement from soils salvaged from the U-3 culvert extension has not been approved, not has it occurred. Therefore, this referenced region on Plate A has no bearing on N-97-45-1-1 and should not be included in this submittal.
- The green shaded region located adjacent and south of the red, stockpile disturbed region is not discussed by the MRP. Section 3.5.1, Contemporaneous Reclamation, discusses the "left" hillside where soils were placed from the stockpile disturbance during repair of the crushed culvert. In addition, during the field visit on September 9, 1997, DOGM was told that soil removed from the stockpile was placed on the south facing slopes above the portals (Technical Field Report, 9/9/97).
 - Has additional disturbance of the stockpile resulted in soil placement on this north-facing slope?
 - If so, was this action approved by the Division? Dates, soil volumes, soil

placement thickness need to be verified.

- Finally, since no soil was salvaged from this slope during construction, what happened to the original soils if they are now buried under redistributed topsoil?

- Affected **acreage** and **soil volumes** need to be given for each area of soil placement. This information is needed for accurately assessing soil placement thicknesses and evaluating soil mass balance calculations.

(3) Remedial action to abate N-97-45-1-1 required information on pre-existing and existing volumes of topsoil in the stockpile. This amendment addresses this remedial action by supplying a new table, Topsoil/Growth Medium Recovery and Placement Calculations, located in Appendix 8-1. As shown in the table, past and current volumes of soil medium in the stockpile are surveyed at 10,993 and 10,223 CY, respectively. Information in the table, Appendix 8-1 is unclear for the following reasons:

- No text discussion is given for Table Appendix 8-1.
- The surveyed quantity (10,993 CY) of soil medium recovered in 1996 differs markedly from the actual topsoil stockpile volume of 15,312 CY and a compaction corrected volume of 13,741 CY (includes Area 10 & 11 and calculated from the report submitted by EathFax to Horizon, Appendix 8-1, Soil Salvage Practices Fall 1996, December 15, 1996). A soil stockpile deficit of 2,748 CY therefore exists and an accurate accounting of the soil resources is necessary for the Division to evaluate these results and operation activities at the Horizon Mine:
 - Horizon must account for the 2,748 CY soil deficit?
 - Was this soil used as fill during portal construction or repair of the broken culvert (see field report 9/9/97, Topsoil Stockpile Disturbance)?
 - Does this difference take into account the soil removed from the stockpile while repairing the crushed culvert?
 - When were these surveys performed?
- Footnote (b) states that the surveyed amount (10,933 CY) excludes the hill located on the left side of Portal Canyon below the topsoil stockpile which will remain during reclamation. This "hill" presents some perplexing questions that need to be answered in order for the Division to determine the accuracy of this table:
 - The phrase "left side of Portal Canyon" is unclear and does not designate which direction (north, south, etc.). The assumption is north, northwest.
 - Does this "undisturbed" hill contain soil that should have been salvaged?
 - If soil was left, why is this soil part of the recovery and placement calculations?
 - Photographs from last fall (Figure 1 of this TA) show that all north, northwest hills located adjacent, immediately above the Portal Canyon pad and below the soil stockpile were disturbed during the 1996 fall construction

period. Figure 8-2 clearly shows that no soil was salvaged from these slopes, yet the photograph (TA Figure 1) clearly shows that these hillsides were affected during construction. Therefore, if these slopes were affected during construction, why wasn't soil salvaged?

- Since the amendment states that the hill will remain undisturbed, how can this statement be rectified since these north, northwest hills were disturbed?

- The meaning of "Soil Medium Placed" in 1997 is unclear. The assumption is that this statement refers to soil removed from the stockpile and placed in contemporaneous reclamation areas as shown on Plate A, Appendix 8-1.
- Footnote (c) states that soil replacement depth will increase from 11" to 14" during reclamation. It is unclear how the "14 inches" was calculated.

(4) The referenced letter in Appendix 8-1 from Hidden Splendor Resources, LTD to Denise A. Dragoo states the following: "Any remaining topsoil in connection with Horizon Mine Permit No. ACT/007/020 may be used by KTK Construction Company." Since this letter is being submitted as part of the MRP, this statement needs to be clarified. Topsoil resources in connection with the Horizon permit may not be used except as specified by the MRP. Therefore, additional correspondence to KTK Construction Company, Inc. needs to clarify that topsoil resources may only be used, disturbed, stored, and redistributed as approved in the MRP and in connection with the Horizon Mine permit.

Findings:

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-300-142 and 143, R645-301-120 and R645-301-252 and 252. Please answer all concerns outlined in the Operations Analysis section listed above.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

The submittal contains a map showing proposed reclamation contours, but the map is not in a format that is acceptable for review by the Division., nor does the MRP contain any discussion in relation to this map and alterations to reclamation contours as affected by contemporaneous reclamation activities. Finally, the map is not certified by a Professional

Engineer.

Contemporaneous reclamation activities have altered the structural integrity of the approved MRP for reestablishment of drainage ways and ultimate placement and disposal of construction fills. Therefore, the amendment needs to discuss how contemporaneous activities have altered the approved reclamation plan as follows:

- Describe in detail how reclamation will be achieved to reestablish both drainage areas in Jewkes Creek and Portal Canyon.
- Discuss the precise removal and ultimate placement of construction fills during reclamation.
- Provide plates showing revised reclamation contours and cross sections.

Findings:

The information provided does not meet the regulatory requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-300-142 and 143, R645-301-120, R645-301-500 and R645-301-600. Please answer all concerns outlined in the Reclamation Analysis section listed above.



Figure 1. 11/13/96, Horizon Mine. ACT/007/020 on-site inspection . DOGM personnel - Robert Davidson and Paul Baker. North, northwest cut slopes created during fall, 1996 construction. Photo taken from the base of the soil stockpile, looking down Portal Canyon. The entire slope from the base of the stockpile to the mouth of Portal Canyon has been affected.