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

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July 29, 1997

TO: File  
THRU: Daron Haddock, Permit Supervisor *DRH*  
FROM: Sharon Falvey, Senior Reclamation Hydrologist *SFP*  
RE: Reclamation Plan Amendment 6/23/97, Consolidation Coal Company, Hidden Valley Mine, ACT/015/007-97B, Folder #2, Emery County, Utah

SUMMARY:

The permittee submitted this amendment to provide reclamation measures that increase vegetative success at the B seam, west of the ephemeral drainage running through the site. Additional disturbance east of the ephemeral drainage will occur at the borrow area and for site access.

**TECHNICAL ANALYSIS**

**RECLAMATION PLAN**

**GENERAL REQUIREMENTS**

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

**Analysis:**

The proposed reclamation includes a borrow source within the existing reclaimed disturbed area. However, the final configuration of this borrow source was not presented. Information and discussion on the final configuration of this source should be included in the

reclamation amendment. The area identified includes the boundary for the drainage ditch which originates above the southeast reclamation slope. Changes that may affect this drainage should be identified.

The design criteria and slope safety factor have not been described for the proposed adit slope configuration.

**Findings:**

The amendment does not meet the requirements of this section. The permittee must provide the following in accordance with:

**R645-301-542**, Provide a discussion and the topographic configuration for the proposed borrow area, include drainage design information on the affected portions of the ditch which originates above the southeast reclamation slope. Provide a description of the backfill and grading design criteria for the regraded adit slope and demonstrate that the requirements of R645-553.130 are met for the proposed configuration.

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

**Analysis:**

**Stream Buffer Zones**

The permittee will be pushing material from the existing north west backfilled adit slope to an area in-between the adit slope and Ivie Creek. Measures employed to protect the stream and the designated buffer zone need to be identified for this proposed activity.

**Sediment Control Measures**

The permittee has not provided a discussion or designs for erosion control measures. Existing silt fences are shown perpendicular to the main drainage exiting the disturbed area. The silt fences at this site have been in-effective in these soils and because water

has a tendency to pipe under the fence.

Another potential problem is likely to occur following regrading of the site. Because the fill will be flat, runoff from the reclaimed area could potentially drain over the south embankment to the river. Runoff over this area is likely to encourage head cutting which may have a long term affect on the success of reclamation. See drawing 97-1.

The applicants design is proposed to encourage sheet runoff and to minimize rill and gully formation. Because precipitation tends to occur in high intensity short duration events. This is acceptable however, it is suggested the operator consider the grading plan be changed to provide a low angle inslope that drains to the north west corner of the site. A slight inslope could direct the water toward the low gradient area and then be directed by a designed drainage to the main drainage. At this point a siltation structure could be provided for sediment control. Sending the runoff to a low gradient area will encourage deposition of material. Conveying the discharge over a low slope into the channel would minimize the potential for head cutting.

### **Findings:**

This amendment does not meet the requirements of this section. The permittee must provide the following in accordance with:

**R645-301-740**, Provide a discussion and designs for sediment control measures that are BTCA for the re-disturbed reclamation area.

**R645-301-731**, Provide a discussion that includes the measures to be employed to protect the stream from adverse affects for the area be reclaimed within 100 feet of Ivie Creek.

### **Recommendation**

It is recommended that the additional information requested in this review be received and approved by the division. Following receipt of the design criteria for the regraded slope an engineer should be assigned to review the analysis.