



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

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October 19, 1994

TO: Daron Haddock, Permit Supervisor  
FROM: Steven M. Johnson, Reclamation Hydrologist *SMJ*  
RE: Draft Review, Reclamation Changes, Castle Gate Mine, Amax Coal Co.,  
ACT/007/004-94D, Working File, Carbon County, Utah

**SYNOPSIS**

Castle Gate Coal Company (CGCC) has been working on reclaiming Sowbelly Canyon through 1993 and 1994. An amendment to the MRP has been submitted to the Division to address some field changes that occurred in this reclamation operation.

**ANALYSIS**

**HYDROLOGI**

Regulatory Referer  
752, 760, 762

**Analysis:**

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designs have no  
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*10/19*  
*Tom,*  
*I had Steve re do his memo*  
*to clarify the 60" culvert*  
*situation. The conditions*  
*should be more clearly*  
*represented.*  
*Thanks*  
*Daron*

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in Sowbelly Canyon. This section mentions that road A-2 will follow the alignment of the main channel for a reach, and placement as such will minimize the impact to the reclaimed area. It says that water quality will not be effected because the channel does not normally contain flow. Section 3.2.5(1) outlines the phases of reclamation. Phase II has been amended to show the construction of road A-2 and the exclusion of the substation from current reclamation. Phase III now includes a statement on the reclamation of road A-2.





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**SYNOPSIS**

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**ANALYSIS**

**HYDROLOGIC INFORMATION**

Regulatory Reference: R645-301-722.500, 731.100, 731.600, 742, 742.110, 742.300, 742.313, 742.320, 742.400, 751, 752, 760, 762

**Analysis:**

Section 3.2-2 says a 60-inch culvert will run under access road to the natural stream bed. This section also says that a temporary road will be constructed inside the disturbed area after reclamation for maintenance access. Section 3.2-5(2) has been changed to show four culverts will be used in reclamation. Culverts SBRC-3 and SBRC-4 have been added because of the construction of road A-2. Information has also been added to this section regarding the filter blankets and riprap for the reclamation channels, but detailed designs have not been included because data has not been collected. Section 3.2-9 has been amended to include detailed information on the two road that will continue to be maintained in Sowbelly Canyon. This section mentions that road A-2 will follow the alignment of the main channel for a reach, and placement as such will minimize the impact to the reclaimed area. It says that water quality will not be effected because the channel does not normally contain flow. Section 3.2.5(1) outlines the phases of reclamation. Phase II has been amended to show the construction of road A-2 and the exclusion of the substation from current reclamation. Phase III now includes a statement on the reclamation of road A-2.

**Findings:**

CGCC has properly designed four reclamation culverts, but should included there locations on Exhibit 3.2-2B. The locations are marked properly on amended Exhibit 3.2-4. The upper two culverts (SBRC-3 and SBRC-4) are designed for the 10-year, 6-hour event because they are temporary. SBRC-1 and SBRC-2 are designed to convey the 100-year, 6-hour storm event. The 60 inch culvert mentioned in Section 3.2-2 was removed during reclamation, but the size was change in this submittle to show the actual size that existed during operations.

Road A-2 will be constructed to allow access to the reclaimed areas. Access may be necessary for seeding and maintenance throughout the reclamation period. The road will follow a berm on the west side of the main channel (SBRD-1) from a point just north of the lower sediment pond for about 850 feet. The road will then drop into the main channel and run along the bottom of the channel to the top of the reclaimed area. The location of the road in the drainage will not diminish water quality if the road is used only occasionally and only during no flow conditions. The road should be reclaimed when no longer needed in this project. The reclamation plan listed in Section 3.2.5(1), Phase III is sufficient for the road.

The final designs for filter blanket and riprap sizes are not available in this amendment. Data must be collected on the native material, filter blanket, and riprap sizes and as built designs submitted as part of the certification of the channel designs.

**POSTMINING LAND USES**

Regulatory Reference: R645-301-412

Section 3.2.5(1) outlines the phases of reclamation and adds grazing to wildlife as the POSTMINING land use.

**Findings:**

Defining the post mining land use makes this statement consistent with the land use information given in Chapter 4 of the MRP.

**RECOMMENDATION**

The amendment of filter blanket and temporary access road should be approved with the following conditions:

1. Exhibit 3.2-2B be amended to show the location of the existing culverts.
2. Road A-2 should not be used frequently and should only be used when there is no water in the channel so the water quality is not diminished by this activity.
3. CGCC must submit as-built designs for the reclamation channels which include the riprap, filter blanket and base material size distribution, and a map or description of the exact reaches of channels that are lined with filter fabric.

FILTER.SJ

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Do you  
mean designs  
or just  
as-builts?  
Please let me know.  
Tom

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I want designs  
of channels  
as they were  
built.

Steve

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