



State of Utah  
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DIVISION OF OIL, GAS AND MINING

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**Memorandum**

To: Joseph Helfrich, Permit Supervisor *jh*

From: David Darby, Reclamation Specialist *DD*

DATE: August 19, 1997

RE: Amendment, Approval for Rock Gabion Structures, Gordon  
Creek 2, 7 and 8 Mines, Mountain Coal Company,  
ACT/007/016-97C, Carbon County, Utah

*#2*

**SUMMARY**

Mountain Coal Company submitted a formal amendment to their Mining and Reclamation Plan (MRP) on August 4, 1997 to develop eight rock gabion structures. The rock gabions will replace the six silt fence structures along the mine access road (county road section).

**Analysis**

As pointed in previous inspection reports, the silt fence structures designed and approved in the plan to treat runoff from disturbed areas were difficult to maintain. Rock gabion structures and an intense maintenance plan were proposed by the inspector and adopted by the operator.

The structures were proposed because of the difficult location and amount of sediment produced during reclamation activities. It was obvious that the silt fences were stressed because of the exceptional rainstorms moving through the area. Recent reclamation activities on surrounding steep slopes produced large amounts of sediment which would clog and stress the silt fences as they filled.

Amendment  
ACT/007/016-97C  
Gordon Creek 2, 7 and 8 Mines  
Mountain Coal Company  
August 19, 1997

The rock gabion structures would provide additional strength to hold back the sediment while filtering out most of the fine sediments. Small pools excavated behind the rock gabions provide a settling basin for the sediment while the flow could filter out between the rock and sands.

Because of the weather patterns and the need to ensure that sediment did not leave the site the operator was granted verbal permission to construct the gabion structures with plans to be submitted later. As-built drawings were required to show the locations of the gabion structures.

The operator constructed the rock gabion structures over the following week of the inspection. The structures have since provided a better treatment under extraordinary rainfall conditions than the silt fences.

Sedimentation is a continuing problem between the sedimentation pond, the reclaimed mine site and the stream. The gabion structures in conjunction with an aggressive maintenance schedule will ensure compliance with regulations during Phase II bond activities.

## **Findings**

This amendment is recommended for approval.