



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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TO: Daron Haddock, Permit Supervisor

FROM: Wayne H. Western, Reclamation Engineer *WHW*

DATE: June 22, 1994

RE: Shotcrete the Highwalls, Genwal Coal Company, Crandall Canyon Mine, ACT/015/032, File #2, Emery County, Utah

## Synopsis of Proposal

Shotcrete will be sprayed onto the highwall above the portals and above the portal road. A four inch square mesh will be used, being spaced approximately one to two inches away from the existing slope. The wire mesh will be secured to the slope with standard metal clips. Two-inch PVC pipes, perforated for drainage, will be inserted two to three feet into the slope at two different elevations, approximately six inches to twelve inches from the bottom of the project and twelve to twenty-four inches from the top of the project. These pipes will be spaced six to ten feet apart for the entire length of the project. Two to four inches of shotcrete will then be sprayed onto the wire mesh. The intent of the project is to better stabilize the highwall to eliminate slufage and enhance safety for personal.

Before backfilling and grading of highwalls the shotcrete, wire mesh, clips and other related materials will be removed. The noncombustible material generated from the removal of shotcrete will be disposed of underground prior to the sealing of the portals. All other waste will be removed and disposed of in an appropriate state land fill.

The cost to reclaim the shotcrete has been estimated at \$20,600. The reclamation cost, for the shotcrete, has already been included in bond.

## Analysis

The Operator wants to place shotcrete on the steep slopes over the portals, pad and road. The shotcrete will eliminate slufage from the slope thus enhancing safety. Shotcrete will prevent minor rockfalls, but will have small effect of the slope's general stability.



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Drain pipes will be installed to prevent hydrostatic pressure from building up behind the shotcrete. Placement of drain pipes is based on experience. There are no formulas for deciding the correct number of drain pipes or their spacing.

The reclamation bond already includes the cost of reclaiming the shotcrete. The cost is listed in the current bond as item #23.

**Recommendation**

Approve the proposal without conditions.

GENSHOT.WHW