



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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July 28, 1997

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

FROM: Sharon Falvey, Reclamation Specialist *SF*

RE: Relocate Mine Water Discharge Line, PacifiCorp, Trail Mountain Mine, ACT/015/009, Folder #2, Emery County Utah.

Summary

This amendment proposes the mine water discharge line be re-located and the size of the line be increased from a 4 inch to an 8 inch pipe.

Analysis

Mine water is pumped to a 100,000 gallon holding tank at the Trail Canyon Mine. It is proposed that an 8 inch line connected to the holding tank be discharged to an existing 48 inch bypass culvert which is then transported to the 66" bypass culvert that discharges to Cotton Wood Creek. The 6" overflow line will be valved and directed back to the main 8" discharge line. The following summarizes the submitted culvert design information.

Minewater Discharge to Bypass Culvert System

Culvert	Design Flow/ Design Event	Maximum Capacity	Full Flow	Design Q + 200 gpm mine water Q.	Capacity beyond design flow
48"	80.1 cfs 10 year 24 hour precipitation event	301.76 cfs	280 cfs	80.55 cfs	199.45 cfs - 221.21 cfs
66"	510 cfs/ 50 year flood	560.28 cfs	520 cfs	510.45 cfs	9.55 cfs - 49.83 cfs

The flow enters into the 48 " culvert which is an ephemeral system and generally does not flow. Actual discharge rates could potentially be limited to the capacity of the discharge system rather than the culvert capacity. The operator indicated in the July 10, 1997 cover letter that a maximum of 200 gpm would be discharged to the culvert. However, this value was not presented in the amendment. The applicant also stated that the flow meter will be capable of producing instantaneous flow and a running total. Thus, the operator will be able to monitor the flows and stay within the limits of the design should the culvert be nearing full flow while the operator is discharging.

The valved six inch line would continue to allow excess water to be discharged to the culvert but would not be a metered discharge. The operator should provide a method to account for additional discharges through the non-metered overflow line. It is understood that this line then discharges to the culvert through a drop drain.

Although, the PHC mentions that increased water will occur with mining to the west, portions of the plan indicate that only infrequent discharge will occur from the mine. Some inconsistent statements were noted in section 7.1.4.1, and 7.1.5 that should be updated.

Findings:

Adequate capacity is contained in the culvert to provide for discharge from the holding tank. The proposal is adequate to commence with construction. The following should be conditions to approval:

R645-301-700, Prior to discharge from the pipe the operator must have received approval from the DEQ for the proposed changes at point of discharge.

R645-301-731, Provide a description or monitoring method to account for additional discharges that may occur through the non-metered overflow line. Update those portions of the plan that have statements that are inconsistent with this submittal, such as in section 7.1.4.1 and 7.1.5.

Recommendation:

It is recommended this amendment be approved with conditions for submittal following construction.