



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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June 19, 1989

TO: Richard V. Smith, Permit Supervisor

FROM: Tom Munson, Reclamation Hydrologist *TM*

RE: PAP Amendment, Culvert Downspout at Ditch 6C, Revised Location and Design for Ditch 7G, Cyprus-Plateau Mining Company, Starpoint Mine, ACT/007/006-89D, Folder #2, Carbon County, Utah

Synopsis

The operator submitted the calculations for a culvert downspout on Ditch 6C and revised location and design for Ditch 7G on June 16, 1989. This memo reviews this amendment to the PAP.

Analysis

The operator has used the 100-year, 6-hour storm design criteria to design both the culvert downspout for Ditch 6C and the ditch and culvert associated with Ditch 7G. Map 42, Map A, sheet 2 of 3, and Map 42, Map B, sheet 2 of 3, reflects the appropriate changes designating the culvert downspout designs on Ditch 6C and the designs for a new Ditch 7G, and associated Culvert 7F. Table 76 has been revised to accurately reflect the peak flow calculations for these structures.

The use of the 100-year, 6-hour design criteria was given as a variance to our current regulations because the new rules to be implemented by the state require the 100-year, 6-hour design for coal refuse piles. It should be noted that several discrepancies exist between the field data contained in the Division's field data assessment and the current ditch designs submitted by Cyprus-Plateau. The peak flows generated by Cyprus-Plateau were generally lower because they used a precipitation value of 2.0 inches versus 2.2 inches for the design storm. This is acceptable to the Division. All calculations have been checked and determined acceptable for the design of Culverts 6B and 7F.

Page 2
Memo to R. V. Smith
ACT/007/006-89D
June 19, 1989

The Division requests that trash racks be installed on both culvert inlets and that adequate inlet protection and headwall depth be provided for both inlets. An outlet protection plan for Culvert 7F is provided and is considered adequate. The outlet to Culvert 6B discharges on to a natural rock apron as designated on Map 42, and also is considered adequate.

Recommendations

1. The operator commit to providing standard trash rack designs for the inlets of culverts 6B and 7F and provide adequate inlet protection for both inlets.

Once the operator has committed to providing these additional designs for the culvert inlets, then the plan will be considered approvable and the implementation of these designs can be carried out.

djh
AT5/42-43