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# State of Utah

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November 15, 1989

TO: Richard V. Smith, Permit Supervisor  
FROM: Tom Munson, Reclamation Hydrologist *TM*  
RE: **Stipulation Response, Five-Year Permit Renewal, Beaver Creek Coal Company, Gordon Creek #2, #7 and #8 Mines, ACT/007/016, Folder #2, Carbon County, Utah**

## Synopsis

The Stipulation Response was received on October 26, 1989, addressing the following regulations, UMC 817.43-(1)-(DW), UMC 817.44-(1)-(DW). This memo reviews the adequacy of that response.

## Analysis

The operator has not changed his basic reclamation plan as shown on Plate 3-12. The only variation in channel configuration will be in the M.D. size of riprap protection, due to variations in slope and flow.

The operator has provided standard Manning's equation calculations for flow velocity in the various channel reaches and provided riprap calculations supported by computer runs. Any revisions to the previously approved plan involves increases in riprap size.

The availability of this size of riprap will be a major consideration in the completion and construction of this project. Riprap sizes, six feet in diameter, are fairly unbelievable when the practicality of installation is considered. The plan must be evaluated, both from an engineering feasibility standpoint, and a bonding perspective, since it involves changes to the design specifications previously approved.

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Recommendations

1. The operator be asked to document where the riprap will be purchased and how it will be installed.
2. The bond be increased to reflect the increased construction costs associated with the installation of larger riprap.
3. The stipulation response be approved, once the bonding questions are answered and the operator has provided the necessary documentation of where the riprap will be purchased.

djh  
AT46/27-28