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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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September 19, 1989

TO: Joe Helfrich, Regulatory Program Coordinator
FROM: Mike DeWeese, Reclamation Hydrologist *MD*
RE: Ponds 12A and 12B, NOV N89-31-2-1, Castle Gate Coal Company, Castle Gate Preparation Plant, ACT/007/004, Folder #2 Carbon County, Utah

SUMMARY:

The Division has reviewed the operator's submittal received August 25, 1989, proposing mitigative measures for the aforementioned Notice of Violation (NOV). This NOV addresses two issues, the installation of elevation reference points in Ponds 12A and 12B and a demonstration of detention times. The operator has committed to installing a reference mark on the pond spillway riser corresponding to the maximum elevation at which the design storm surface runoff can be totally contained. Calculated volumes used in the approved pond designs were addressed to demonstrate adequate detention time. Although the operator has addressed the issues, the response is not considered technically adequate at present.

ANALYSIS:

The operator has committed to installing a reference mark on the spillway riser corresponding to the elevation at which the 10 year - 24 hour storm runoff can be totally contained. This is considered an adequate alternative to the original abatement requirements of the NOV as agreed by myself and Mr. James Buck, Castle Gate Coal Company (personal communication, August 18, 1989). However, it is not clear if it is the operator's intention to do this for both ponds because the operator refers to a singular structure. It is the Division's position that Ponds 12A and 12B are separate structures and must be addressed as such in the operator's response. The operator must clearly commit to installing elevation reference points in both Ponds 12A and 12B. The exact elevations to be referenced must be identified.

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As a demonstration of detention times, the operator submitted a summary of calculated volumes presented in the approved Mining and Reclamation Plan (MRP). Again, the assumption was that both ponds functioned as a single structure. Therefore the operator's demonstration of adequate detention time based on total containment is not correct. Using pond volumes presented in Tables 3.4-3 and 3.4-4 of the MRP, the Division determined that Pond 12A contains adequate capacity to totally contain the design storm surface runoff, the expected sediment yield, and the mine discharge volume. Pond 12B has a maximum capacity of 23,927 cubic feet. The capacity necessary to contain the design storm runoff and the design sediment yield is 18,801 cubic feet. The operator has submitted an average mine discharge value of 50 gallons per minute, or 9,625 cubic feet per day. Therefore the storage capacity necessary for total containment is 28,426 cubic feet ($18,801 \text{ ft}^3 + 9,625 \text{ ft}^3$), 4,449 cubic feet over the pond capacity. The submitted calculations do not sufficiently demonstrate adequate detention time. A sufficient demonstration of adequate detention time in Pond 12B must be submitted.

RECOMMENDATIONS:

The Division recommends that Notice of Violation N89-31-2-1 not be terminated until the operator has adequately addressed the aforementioned deficiencies.

cc: L. Braxton
S. Linner
BT98/87-88