



State of Utah

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November 6, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Ken Wyatt, Reclamation Hydrologist *KW*

RE: Spillway change, Mountain Coal Company, Gordon Creek 2, 7, & 8 Mines, ACT\007\016, Folder #3, Carbon County, Utah

SYNOPSIS

On November 5, 1992, Dan Guy called to inform me that the open channel spillway as approved last year was installed at the # 2 mine sediment pond. He stated that the channel was in place and that 8 to 15 inch riprap was installed but the weather had changed and they were not able to get the grout poured before it froze and was snowed on. He asked me if we could allow them to forego the grout since this area will be reclaimed next spring.

ANALYSIS

I examined the design as approved last November. The #2 sediment pond is equipped with a 6 foot vertical standpipe at a lower elevation than the newly installed open channel. This standpipe was previously used as the emergency spillway until the regulations required an open channel.

Looking at the design for this pond, the emergency spillway is capable of discharging 11.3 CFS. Using the Flowmaster program, I calculated a flow depth of .24 feet at 7.4 feet per second in the steepest section and .40 feet deep at 4.1 feet per second in the flat section. These flow depths and velocities are not sufficient to dislocate the riprap currently installed.

Additionally, the 6 foot vertical standpipe will aid in discharging water prior to the water ever reaching the elevation of the open channel spillway. The entire site is scheduled to be reclaimed sometime during the next construction season.

RECOMMENDATION

Considering these factors I believe that we can allow Mountain Coal to forego the grouting of this channel as requested by Dan Guy.