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# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter  
Governor  
Dee C. Hansen  
Executive Director  
Dianne R. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

April 10, 1992

Mr. Dan Guy, Manager  
Mountain Coal Company  
P.O. Box 1378  
Price, Utah 84501

Dear Mr. Guy:

Re: Sediment Pond #2 Spillway, Gordon Creek #2, #7, and #8 Mine, Mountain Coal Company, ACT/007/016-DO-91B, Carbon County, Utah

Enclosed please find a memo that addresses deficiencies in the March 5, 1992 <sup>#2</sup> submittal relative to the spillway for Sediment Pond #2 at the Gordon Creek #2, #7, and #8 Mine. Please submit a complete and adequate response by May 15, 1992.

Sincerely,

A handwritten signature in cursive script that reads "Pamela Grubaugh-Littig".

Pamela Grubaugh-Littig  
Permit Supervisor

pgl  
Enclosure  
cc: Ken Wyatt



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April 7, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Ken Wyatt, Reclamation Hydrologist *KW*

RE: Response to Division Order #DO-91B; Sediment Pond #2 Spillway, Gordon Creek 2,7 & 8 Mine, Division Order # DO-91B, Mountain Coal Company, ACT\007\016, Folder #3, Carbon County, Utah

## SYNOPSIS

In the summer 1991, Division Order #DO-91B was issued to Mountain Coal Company requiring them to modify their existing sediment ponds to include a principal and emergency spillway. The Division received design specifications for the sediment pond spillway modification on October 8, 1991.

During the interim between the Division Order issuance and the proposed modification submittal, the Coal Mining Rules changed to allow for an exemption to the dual spillway requirements. In a January 29, 1992, letter from the Division, the operator was informed of the exemptions to the dual spillway requirements.

On March 5, 1992, the operator submitted a proposal to pursue the spillway exemption by proving that pond 2 can control the runoff from the 100-year, 6-hour storm in combination with pond 7A. The following is a review of this most recent submittal.

## ANALYSIS

The two sediment ponds at this mine are in series. Pond 7A is located above pond 2 and is connected in series by a culvert. The primary spillway for 7A is a 24 inch CMP riser with 2 inch perforations. These holes serve as the dewatering device. Water discharged through these holes drains into a 12 inch CMP and flows down canyon into pond 2. The emergency spillway for pond 7A is a 60 inch diameter CMP riser draining into a 30 inch CMP barrel which into Bryner Creek. These two spillways meet the requirements of R645-301-742.223.

Since pond 7A is in compliance with two spillway requirements it does not need to control the 100 year 6 hour event. Excess water from a 100 year 6 hour event passes some water into the 10 year 24 hour perforated spillway which drains to pond 2. The remainder flows through the emergency spillway and into Bryner Creek.

Pond 2 has a 60 inch CMP riser which drains into a 24 inch CMP barrel. A dewatering mechanism consisting of a floating decant is attached which drains into the 60 inch riser. The operator is proposing that the two ponds in series will contain or control the 100 year 6 hour storm event and is therefore exempt from the dual spillway requirements as set forth in R645-301-742.225.

Pond 2 receives .99 acre feet of runoff from pond 7A during a 100 year 6 hour storm. Pond 2 collects drainage from 3 small watersheds producing a total runoff volume from a 100 year 6 hour storm of .99 acre feet. The combined volumes of water from the 3 small watersheds plus the flow from pond 7A is 1.89 acre feet. Pond 2 has a total volume of 3.25 acre feet. This is adequate volume to control the 100 year 6 hour storm.

#### **RECOMMENDATION**

I recommend that this proposal not be approved until several issues are addressed. Also, the operator's submittal has several inconsistencies that should be corrected for the final submittal.

1. The operator originally based his spillway designs for pond 7A on the 25 year 24 hour storm. The current regulations use the 25 year 6 hour storm for spillway design. The operator needs to provide a comparison of the two storms which demonstrates that the peak flow from the 25 year 6 hour storm is less than the 25 year 24 hour storm or that the spillway as designed can handle additional flow.
2. Since the pond does not provide containment the operator needs to provide an inflow and outflow comparison showing that the water is handled in a controlled manner.
3. Revise plates 7-8 and 7-8b submitted October 30, 1991 to remove the proposed open channel spillway.
4. Page 7-108 and 7-111 depicts the design storm as a 100 year 24 hour event and not a 100 year 6 hour. Which storm was actually used.