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

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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

July 22, 1991

Mr. Dave Ariotti, District Engineer
Southeastern Utah Health District
Environmental Health
P. O. Box 800
6 East Main
Price, Utah 84501

Dear Mr. Ariotti:

RE: Soldier Creek Coal Company Facilities Expansion Pond Modification, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018, Folder #2, Carbon County, Utah

On January 9, 1991 the Division of Oil, Gas and Mining received a Permit Revision for Road Relocation and Facilities Expansion at Soldier Creek Mine. Our initial Draft Technical Analysis identified deficiencies in the submitted spillway design. Soldier Creek responded to the deficiency with proposed design changes. These design changes meet the Division's regulation requirements.

Soldier Creek will be submitting a copy of the proposal with revisions within the next few days. I am including my Technical Analysis regarding the proposed sediment pond to assist your review.

Sincerely,

Sharon K Falvey

Sharon K. Falvey
Reclamation Hydrologist

mbm
Attachments
cc: D. Haddock, DOGM
Document: BTEAM\SC3.DOH

R614-301-733. SEDIMENTATION PONDS

Operator's Proposal:

The Operator has provided pond designs, to handle the additional drainage area produced by the facilities expansion. The pond design changes include:

1. Changing the existing decant into the emergency spillway. The existing gate valve will be locked in an open position.

2. Add a 3" butterfly valve decant at the Maximum Sediment level, 1.95 ft. above the 60% level. The Operator will remove sediment when at the 60% clean out level (Section 10.5.3, pg.26).

3. Pass the peak 25 yr.- 6hr. event through both spillways.

4. Include the emergency routing of the plant process water in the total pond runoff detention volume.

5. The most recent survey, May 1991, assumes 0.3 AF is currently in the pond bottom according to the final construction report revised 2/4/87.

6. The permittee has also decreased the precipitation value for the 10 yr.- 24 hr event from 2.08" in the MRP to 1.9".

SOLDIER CREEK COAL COMPANY POND

POND DESIGN CHANGE	PREVIOUS ELEVATION FT.	PREVIOUS VOLUME (FT3)	PROPOSED ELEVATION FT.	PROPOSED VOLUME (FT3)	COMMENTS
60% SEDIMENT CLEAN OUT	6646.8	0.86	6647.55	.086	
MAXIMUM SEDIMENT VOLUME(yrs)	no change		6649.5	1.43	
DECANT	6649.35	1.54	6649.5	1.43	1.95 ft above 60% clean out level
PROCESS WATER STORAGE	none		6649.5	0.44	
RUNOFF VOLUME	10yr.-24hr. precip. = 2.08"	1.76	10yr.-24hr. precip.= 1.9" +	1.49	
PRIMARY SPILLWAY	6654.1	3.3	6654.5 Runoff + Max. Sed. + Process	3.36	
EMERGENCY SPILLWAY	none		6654.5	3.36	
FREEBOARD		1.22	6655.12	1.08 FT	
EMBANKMENT	6656.2		6656.2		

Compliance:

The Operator has proposed designs to provide an adequately sized pond. But, the Operator failed to send the certified map of the pond layout. Additionally, the text does not clearly describe that the pond will be passing the peak event through both spillways, and it does not identify whether the riprap under the spillway applies to both spillway outlets. Although the pond design is adequate, there still remains some discrepancies in text. Section 10.5.3, pg.26, indicates that the freeboard is at 1.08 ft while Appendix A, pg.8, indicates that freeboard is at 1.48 ft. Some discrepancies still exist in watershed areas between Appendix A, Table 2-1, and Attachment A pg.4, and map E030.

The Operator has submitted a pond design acceptable to the Division. Changes in the pond design requires that it be routed to Health. The design change is currently under review with the Department of Health. Until we receive their concurrance the existing sediment pond will be maintained. Maintainance can be justified because of the short term nature of the design, and the high probability that the required design peak event would not occur during this time period. Assuming a maximum of 3 months to complete the design changes there is a 98.8% chance that a 25 yr. 6 hr. precipitation event will not occur during that time.

Note: Submitted pond designs are based on the proposed disturbed areas, not on the potentially disturbed area. If the Operator is going to enter into the potential disturbance area an amendment will need to be submitted to the Division with revised sediment pond calculations and other pertinent information.

Stipulations:

Stipulation R614-301-733.-(1)-SKF

The Operator will clarify all discrepancies in the text, finalize pond modifications, and provide all applicable certified designs on or before October 11, 1991.