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ACT/007/005 Mine Info #3 & 15 w/ [illegible]
LPB
W. Hedberg
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Subsidiary of
Coastal States
Energy Company

July 16, 1985

RECEIVED
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DIVISION OF OIL
GAS & MINING

Mr. Lowell P. Braxton
Mined Land Reclamation Administrator
DIVISION OF OIL, GAS & MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Minor Modification to Increase Size of Sedimentation Pond

Dear Mr. ~~Braxton~~ Lowell:

We are hereby submitting a minor modification to our approved Skyline M&RP to: (1) increase the size of our sedimentation pond and (2) put two 6' high baffles in the sedimentation pond to increase sedimentation removal efficiency and thus reduce detention time on a trial basis.

We are requesting approval to increase the size of the sedimentation pond by increasing the height of the overflow structure by 0.9 feet. This increase in height would increase the volume of the pond by 25,032 cubic feet. This would increase the total volume available for mine water discharge to 57,620 cubic feet from the current volume of 32,588 cubic feet. By raising the pond level 0.9 feet, we will still have a minimum of two feet of freeboard at the lowest point. Most of the perimeter of the pond will still have four to five feet of freeboard. There will be no additional disturbance or earthwork required. We feel that this proposal is environmentally sound and would increase the size of the pond with minimal impact.

We are also proposing to install two baffle curtains. These curtains would be six feet high and extend across the pond in two locations as shown approximately in Map 3-8. The baffles will be tested for their effectiveness in improving retention time and reducing sediment loading of pond water. After their effectiveness is evaluated, they will either be removed or a proposal submitted for their continued use. Utah Fuel Company will be glad to share the data gained from this test with the Division.

We see obvious environmental benefits and no environmental harm with these minor modifications. They are a result of our continuing efforts to make our already well-functioning pond work even better.

We are enclosing six copies for your review of: (1) pages 3-25, 3-26 and (2) maps 3-8, 3-43 and 3-43a. If you need additional information, please let us know.

Sincerely,

Keith Zobell

for Glen A. Zumwalt
Vice President & General Manager

GAZ:KZ:jsg

Enclosure

Two sedimentation ponds are included in the design of the Skyline Mine plan. Each retention pond has been designed to provide adequate volume for sediment containment and also adequate volume for a theoretical 24hour detention of run-off resultant of a 24-hour, 10-year rainstorm. The minesite sedimentation pond also contains additional volume to adequately treat mine water discharge. The location and design characteristics for each of these two ponds are described in the following:

Mine Site Sediment Pond

A detention pond is located at the mine site adjacent to the crushing and truck loading station. It will detain surface run-off from the 31.1 acre disturbed mine site shown on Map 3-8. Precipitation from a 24-hour, 10-year rainstorm is expected to be 2.45 inches. After infiltration, surface run-off from a storm of this intensity should be 1.50 inches, based on the assumption that the land surface will be similar to gravel and dirt roads with SCS run-off curve numbers of about 90.

*The required volume for providing a theoretical detention of the run-off from a 10-year, 24-hour storm is estimated as: 1.50 inches per acre x 31.1 acres = 169,340 cubic feet. The required volume for sediment storage is estimated as (0.10 acre-feet) x (31.1 acres) = 135,472 cubic feet. The combined volumes for 24-hour retention and sediment storage equal 304,812 cubic feet. The pond contains a volume of approximately 362,432 cubic feet from the spillway elevation of 8579.5 to a depth of 17.9 feet. The difference between the total pond volume of 362,432 cubic feet and that required for surface run-off retention of 169,340 cubic feet plus sediment storage of 135,472 cubic feet is 57,620 cubic feet. This storage is available for retention of mine water discharge. Two 6' baffles are proposed to be located in the pond to decrease inflow velocity, prevent short circuiting and to improve sediment removal efficiency (see Map 3-B for baffle location).

A minimum of three feet have been added to the pond embankments for freeboard and an additional 5% added for settlement of the embankments. Slopes are 3h:1v for backwater impoundments (pressure slope) except on the southeast side where solid rock is located. In the area of solid rock, slopes are near vertical.

The combined emergency and principal spillway pipe utilizes an oil skimmer collar. This pipe will safely pass any run-off from a 24-hour, 100-year storm and mine water discharge. The pipe is sized to pass a one-foot head of pressure (70 cfs), which is more than the maximum run-off inflow rate expected from the disturbed 31.1 acre portal site during a 24-hour, 100-year storm.

The plan view of the pond is shown on Map 3-8. The detailed design of the mine site sedimentation pond is shown in Map 3-42 and the pond cross-section with detailed construction notes is shown in Map 3-43. A constructed walkway providing access to the sediment pond dewatering device control valve is shown on Map 3-8. Detailed design of the spillway pipe and dewatering structure is shown on Map 43-a.

Coal Loadout Sediment Pond

A detention pond will be located adjacent to the storage silos at the coal laodout site. It will detain surface run-off and associated sediment from the disturbed site. Precipitation from a 24-hour, 10-year rainstorm has been calculated to be 2.45 inches. It is assumed that during a rainstorm the ground would become quickly saturated and infiltration would be negligible due to the steep canyon slopes adjacent to the flatland site area.