State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 17, 1988

TO: John Whitehead, Permit Supervisor

FROM: Tom Munson, Reclamation Hydrologist TM

RE: Mid-Term Review, Utah Power and Light Company, Des-Bee-Dove Mine, ACT/015/017, Folder #2, Emery County, Utah

Synopsis

The operator submitted responses to the Division's Mid-Term Review on July 13, 1988. This memo addresses the adequacy of those responses to UMC 784.14 and 817.44.

Analysis

UMC 784.14 Reclamation Plan: Protection of Hydrologic Balance - (TM)

The operator discusses the occurrence of springs within the Des-Bee-Dove Permit area. The operator lists sampling months as July and October, which is adequate. The operator also lists what laboratory parameters he will be sampling, but fails to state that he will not be responsible for those parameters every time he samples, since the list given is the "baseline" parameter list and the "operational" parameter list is not given. This response must be revised so that it is clear exactly what parameters will be sampled for each July and October, as explained in Utah Power and Light Company's (UP&L) Hydrologic Monitoring Program Annual Report. When the operator revises his Annual Report he may submit this information for insertion into the PAP since it clearly spells out the sampling program.

UMC 817.44 Hydrologic Balance: Stream Channel Diversion - (TM)

The current channel design plans for the reclaimed channel are unstable and do not meet a minimum safety factor of 1. The Division feels that several low energy grade control structures must be incorporated into the design as well as a more stable channel sideslope of 2:5:1 or 3:1. The current plan shows a channel bed slope of 41.0 percent, but after conversations with Larry Guymon of UP&L, it was determined, based on field surveys, that a slope of 32.0 percent was more accurate.

After running several designs through the riprap design portion of the computer model SedCad, a safety factor of .5 was calculated for current channel and sideslopes. This is unacceptable to the Division, and the channel must be redesigned by the operator incorporating a more stable design.

The responses to UMC 784.14 and UMC 817.44 are inadequate and the operator must make the appropriate changes in these responses as outlined in the Analysis section of this memo before formal approval is given.

djh
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