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State of Utah

DEPARTMENT OF NATURAL RESOURCES
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July 17, 1990

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Jess Kelley, Reclamation Engineer JK

RE: Subsidence Section of Annual Report, Utah Power and Light Company, Deer Creek Mine, ACT/015/018; Des-Bee-Dove Mine, ACT/015/017; and Cottonwood/Wilberg Mine, ACT/015/019, Folder #2, Emery County, Utah

Synopsis

In May, 1990, the Division received from Utah Power and Light Company (UP&L) the 1989 Annual Report for the Deer Creek, Des-Bee-Dove, and Cottonwood/Wilberg Mines. This memorandum constitutes this writer's review of the subsidence section of the Annual Report and his findings concerning it.

Analysis

The subsidence survey for the Deer Creek, Des-Bee-Dove and Cottonwood/Wilberg Mines is conducted yearly by UP&L. The survey consists of photogrammetric data from 15 designated areas and of observations made during helicopter reconnaissance flights over the surrounding areas. The areas from which subsidence data are gathered are shown in Figure 2 of the annual report.

The results of the subsidence survey are compiled individually for each area. For each area, a verbal account summarizes the photogrammetric data, the aerial observations, surface effects, hydrologic effects, and angle-of-draw calculations. A map then shows the underground workings in some detail. The photogrammetric data are then compiled in the form of a subsidence contour map which is of the same scale as the map of the underground workings so that each can be superimposed upon the other. Two vertical cross sections of the area, transverse to each other, then finish out the report for that area.

Page 2

Memo to P. Grubaugh-Littig
ACT/015/017, ACT/015/018 and
ACT/015/019 - Annual Report
July 17, 1990

This writer is satisfied with the subsidence section of the annual report. It is complete, understandable, and in accordance with the subsidence monitoring plan set forth in the Permit Application Package.

Recommendation

It is recommended that the subsidence section of Utah Power and Light Company's 1989 Annual Report be approved by the Division.

JK/djh
AT60/27-28