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# State of Utah

DEPARTMENT OF NATURAL RESOURCES
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September 2, 1988

TO: File

FROM: David W. Darby, Geologist DWD

RE: Five-Year Permit Review Resubmittal Federal Coal Lease SL-062648 and Completeness Review Lease U-54762, Genwal Coal Company, Crandall Canyon Mine, ACT/015/032, Folder #2, Emery County, Utah

## SUMMARY

A review has been conducted on Genwal Mining Company's (Genwal) Mining and Reclamation Plan (MRP) resubmitted August 8, 1988. This review encompasses conditions (see Five Year Permit Renewal Review, May 3, 1988) established for approval of Federal Lease SL-062648 (also known as Tracks 1 and 2) and a new proposed lease area identified as Lease U-54762. The above mentioned leases total an area of 420.7 acres (161.2 acres and 256.5 acres, respectfully). Additionally, Genwal operates on a U.S. Forest Service special use area and a Beaver Creek Coal Company lease, totaling another 3.2 acres.

## CONCLUSION

The following comments address the status of information submitted in the Condition Response/Permit Application Package with respect to regulations governing geology, ground water and subsidence.

Lease 062648.

UMC 783.15 Ground Water Information - DWD

The applicant was requested to provided sufficient information to establish the characteristics of the aquifers and submit detailed potentiometric surface data to identify the gradient of ground water within the Star Point Sandstone.

Table 7-1 supplies part of the information needed to characterize ground water sources of the surrounding formations.

The applicant references page 7-29 and Section 7.1.6. Section 7.1.6 outlines a spring monitoring plan to analyze ground water conditions. Still, this information when supplied will not identify the potentiometric surface and extent of the Starpoint Aquifer.

Although the Division realizes that obtaining the information on the Starpoint Aquifer will be somewhat inconvenient, we contend that the information is necessary and not exceptionally expensive to obtain. We therefore restate our request to implement at least two drill stations within the existing mine working so that a three point problem can be performed to establish the piezometric surface of the Starpoint Aquifer. One of the monitoring sites should be placed at the most western point of 2nd West as possible and practicable. The other monitoring should be placed in the northern most part of the North Mains.

UMC 783.25 Cross-sections, Maps, and Plans - DWD

The applicant needs to update the mine sequence maps for the mining areas in Tract 2 that the applicant has proposed to to deleted.

UMC 784.14 Reclamation Plan - DWD

On page 7-41 the applicant discusses the infeasibility of installing additional monitoring wells.

Since mine expansion to the north is likely in the future and there is the potential that this mining could have potential effects on the springs, there is continuing president to obtain an understanding of the characteristics of the Starpoint Aquifer in the area. As stated under UMC 783.15, the Division's concerns over the Starpoint Aquifer in this area surpass the conceived burden to the applicant for constructing and monitoring of the in-mine wells.

The applicant shall submit plans to study and analyze the Star Point aquifer for areal extent and piezometric levels on and adjacent to the mine plan area. The applicant will be required to construct two in-mine wells to obtain sufficient data to establish a potentiometric water level in the mine.

UMC 784.20 Subsidence Control Plan - DWD

The applicant has presented a subsidence control plan in Section 12 of the MRP. The applicant has conducted a survey for structures and renewable resources. Although no structures exist, renewable resources do exist in grazing and ground water sources.

The applicant commits, in the MRP, to implement a subsidence control monitoring plan using U.S Forest Service surveys for baseline data and conducting their own surveys annually until subsidence over a monitoring station is stable and then once every five years.

The applicant has presented a subsidence control plan in Section 12 that is now adequate.

UMC 817.41 Hydrologic Balance - DWD

See section UMC 783.15. The applicant has addressed collection and reporting of ground water monitoring data and information on page 7-41. The operator will need to discuss monitoring of additional wells.

The applicant needs to provide, in the MRP, a current summary of all ground water data.

UMC 817.53 Transfer of Wells - DWD

This issue has been addressed on page 3-31 in the MRP.

UMC 817.121-126 Subsidence Control - DWD

This section has been addressed. See UMC 784.20.

Lease U-054762

UMC 783.14 Geology - DWD

This section has been addressed.

UMC 783.25 Cross-sections, Maps, and Plans - DWD

See comments under SL-062648, this section.

UMC 784.14 Reclamation Plan - DWD

See comments under SL-062648, this section.

UMC 784.20 Subsidence Control Plan - DWD

See comments under SL-062648, this section.

UMC 817.41 Hydrologic Balance - DWD

See comments under SL-062648, this section.

The applicant needs to provide, in the MRP, a current summary of all ground water data.

UMC 817.53 Transfer of Wells - DWD

See comments under SL-062648, this section.

UMC 817.121-126 Subsidence Control - DWD

See comments under SL-062648, this section.

dwd

cc: R. Harden
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