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

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March 27, 1998

TO: Pamela Grubaugh-Littig, Permit Supervisor *pgl*
THRU: Daron Haddock, Permit Supervisor *DH*
FROM: Jess Kelley, Reclamation Specialist *JK*
RE: Reduction of Permit Area and Bond Release; Energy West Mining Company;
Cottonwood/Wilberg Mine; ACT/015/019-BR98A; Folder #2; Emery County, Utah

SUMMARY:

The permittee submitted an application for reduction of the permit area on January 20, 1998. On February 4, 1998, the permittee submitted an addendum to the application which contained more information and a detailed history of the application process, which originally included an application for the relinquishment of portions of several leases and which was actually begun in 1992.

Since, according to R645-301-820.111, the reclamation bond covers the entire permit area, any reduction of the permit area requires that the procedure for bond release be carried out as well. In this case, however, the bond release is only nominal since the permittee is not asking for an actual reduction in or the release of any part of the bond.

TECHNICAL ANALYSIS:

The original permit area and the proposed permit area are shown in Figure 1--Cottonwood Mine Permit Boundaries and on Plate 1-3--Cottonwood/Wilberg Coal Mine Permit Area Map. A legal description of the proposed permit area is contained on pages 1-14 through 1-18. The proposed permit area boundary is as follows:

Township 17 South, Range 7 East, Salt Lake Base & Meridian

Section 15: W $\frac{1}{2}$

Section 16: All

Section 17: All

Section 18: All

Section 19: All

Section 20: All

Section 21: All

Section 22: W $\frac{1}{2}$, W $\frac{1}{2}$ SE $\frac{1}{4}$

Section 27: N $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$

Section 28: N $\frac{1}{2}$ N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$

Section 29: N $\frac{1}{2}$ N $\frac{1}{2}$
Section 30: N $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Lots 1, 2 and 3

Township 17 South, Range 6 East, Salt Lake Base & Meridian

Section 13: E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

Section 24: E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

Section 25: N $\frac{1}{2}$ NE $\frac{1}{4}$

Section 25: Beginning at the SE corner of N $\frac{1}{2}$ SE $\frac{1}{4}$, Section 25, T17S, R6E, SLBM, thence North 160 rods; thence West 116 rods to the center line of Cottonwood Creek; thence, Southerly along the center line of Cottonwood Creek to a point 84 rods West of the beginning; thence, East to the beginning point.

The proposed permit area includes portions of Federal Leases SL-064900, U-1358, SL-070645, U-02292, U-084923, U-084924, U-083066, U-040151, U-044025 and U-47978. It also includes an approximately 100-acre fee parcel which lies in T17S, R6E, SLBM, Section 25 and is described above.

Subsidence monitoring is and has been done by aerial photogrammetric methods. For the purposes of subsidence monitoring, the entire permit area was divided into numbered areas. The proposed permit area, however, includes only areas 1, 2, 11, 14, 15, 16 and 17. These areas are shown in Table 4 and in Appendix D--Areas Studied for Subsidence. Some were undermined as early as 1984 and the latest were undermined in 1993. On the basis of subsidence data collected from these areas, as well as the fact that the areas were mined more than 3 years ago, the permittee has determined, and this writer agrees, that subsidence is substantially complete and has stabilized.

In a February 23, 1998 letter to the Division, the U. S. Forest Service, Manti-La Sal National Forest (USFS) raised formal objection to the removal of two of the subsidence study areas from the permit area: Area 1 and Area 14. These areas, each of which comprises 120 acres, are described in the February 23 letter as follows:

Area 1

Township 17 South, Range 7 East, Salt Lake Base & Meridian

Section 22: E $\frac{1}{2}$ SE $\frac{1}{4}$

Section 27: NE $\frac{1}{4}$ NE $\frac{1}{4}$

Area 14

Township 17 South, Range 7 East, Salt Lake Base & Meridian

Section 27: S $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$

Area 1 is associated with Federal Lease U-1358, which lies in the permit area of the Deer Creek mine as well as in the permit area of the Cottonwood/Wilberg mine. Subsidence cracks with vertical scarps more than 20 feet high appeared in Area 1 in 1984. Under the direction of USFS and the Division, the permittee repaired these cracks and scarps and reseeded the area in the summer of 1997. USFS contends that Area 1 should remain in the permit area until monitoring has established that vegetation meets the required reclamation standards.

Area 14 is associated with Federal Lease U-47978, which lies in the Newberry Canyon area and within the permit area of only the Cottonwood/Wilberg mine. This area is on the cliff face of the eastern side of the Wasatch Plateau. Longwall mining in this area caused escarpment failures, extensive cracks near the escarpment, and the formation of a graben on the ridge top. USFS contends that Area 14 should remain in the permit area because, although subsidence has stabilized, the area needs to be monitored to determine whether subsidence cracks will heal, whether erosion and infiltration of surface water will occur, and whether mitigation work will be necessary.

USFS and the permittee have, over the past several years, kept the Division abreast of all subsidence damage which has occurred and all resultant mitigation work which has been done in these subsidence study areas. Division personnel have given input into the mitigation decisions and plans that have been made and have been present while mitigation work was being done. Thus, the Division shares regulatory responsibility with USFS to see that these subsidence study areas are repaired and revegetated properly when they have been damaged. For this reason, these areas should remain as part of a permit area.

RECOMMENDATION:

This writer makes 5 recommendations regarding this permit area reduction/bond release application:

- 1) That Area 1, as described above, be removed from the Cottonwood/Wilberg permit area and that the vegetation monitoring required for this area be done under the Deer Creek permit, of which this area is already a part.
- 2) That Area 14, as described above, be kept in the Cottonwood/Wilberg permit area and monitored as described in the February 23, 1998 letter from USFS to the Division.
- 3) That the Cottonwood/Wilberg permit area be reduced and bond release be granted for the area not remaining in the permit area, as requested by the permittee in the February 4, 1998 application, except Area 14, which should remain in the permit area.
- 4) That the permittee give public notice of and seek public comment regarding the permit area reduction and attendant bond release, in accordance with **R645-301-880.120**.
- 5) That the permittee notify owners of private land within and adjacent to the permit area, as well as interested local government agencies, of its intent to reduce the permit area and obtain bond release on the area not retained, and provide the Division with documentation of this notification, in accordance with **R645-301-880.120**.