



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

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May 27, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DOR A*

FROM: Wayne H. Western, Senior Reclamation Specialist *WHW*

RE: IBC-Joe's Valley Fault, Genwal Resources, Crandall Canyon Mine,
ACT/015/032-99-1, File #2, Emery County, Utah

Summary:

On May 10, 1999, the Division received a request for a 50-acre incidental boundary change at the Crandall Canyon mine. The amendment also contained other changes to the MRP: culvert designs, disposal of noncoal mine waste, and road reclamation.

OPERATION PLAN

COAL RECOVERY

Regulatory Reference: 30 CFR Sec. 817.59; R645-301-522.

Analysis:

The Permittee wants to mine the coal in the 50-acre IBC because the coal cannot be accessed after once they have completed mining in the area. The Joe's Valley fault will prevent access to the IBC from the west and once mining has been completed on the east side of the fault access from that direction will be blocked. Only first mining will be done in the IBC to prevent subsidence from affecting the Joe's Valley fault.

Findings:

The Permittee met the minimum requirements of this section.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Renewable resources survey.

In the Surface Features and Facilities Subject to Subsidence section of the amendment the Permittee includes the following:

Both forks of Crandall Creek are considered to be perennial at least up to the federal lease boundary with State Lease ML-21568.

The Division hydrologist must review that statement.

Subsidence control plan.

- (1) A description of the method of coal removal, such as longwall mining, room-and-pillar removal, hydraulic mining, or other extraction methods, including the size, sequence, and timing for the development of underground workings.

First mining only will be done in the 50-acre IBC to prevent subsidence. Stipulation #20 with the USFS requires that a subsidence free zone be maintained within a 22° angle of draw from the Joe's Valley fault. Therefore, the Permittee has no choice but to use first mining only.

The Permittee did not discuss the timing and sequence of mining as required by R645-301-525.410.

- (2) A map of underground workings which describes the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where measures will be taken to prevent or minimize subsidence and subsidence related damage and where appropriate, to correct subsidence-related material damage.

Plate 6-2 shows the subsidence boundaries. The plate was not updated since the Permittee does not expect subsidence to occur from mining in the 50-acre IBC.

- (3) A description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage.

No changes were made to this section.

- (4) A description of monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage.

In the Subsidence Monitoring section of the PAP the Permittee proposes changing the subsidence monitoring system. Currently, if the Permittee has not detected any subsidence at a particular point for a period of two years, the point will be monitored every other year. The Permittee proposes to conduct monitoring annually until subsidence of less than one foot has been measured for three consecutive surveys showing that subsidence is substantially complete. The Division does not want the Permittee to stop subsidence monitoring after years of no substantial movement because subsidence in room and pillar section may not occur until several years after mining ends. Therefore, the Division will not approve this change for room and pillar sections.

- (5) Except for those areas where planned subsidence is projected to be used, a detailed description of the subsidence control measures that will be taken to prevent or minimize subsidence and subsidence-related damage, including, but not limited to: backstowing or backfilling of voids; leaving support pillars of coal; leaving areas in which no coal is removed, including a description of the overlying area to be protected by leaving the coal in place; and, taking measures on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface.

The Permittee must state how first mining will be done and why subsidence will not occur in the future. The information needed includes but not limited to pillar size, extraction ratios and the pillar safety factor,

- (6) A description of the anticipated effects of planned subsidence, if any.

The Permittee does not anticipate any subsidence in the IBC area.

- (7) A description of the measures to be taken to mitigate or remedy any subsidence-related material damage to, or diminution in value or reasonably foreseeable use of the land, or structures or facilities to the extent required under State law.

The Permittee committed to mitigate any subsidence damage that they caused.

- (8) Other information specified by the Division as necessary to demonstrate that the operation will be conducted in accordance with the performance standards for subsidence control.

The Division does not require any other subsidence information for this amendment.

Performance standards for subsidence control.

The Permittee committed to meet the performance standards for subsidence control.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the Permittee must provide the following in accordance with:

R645-301-525.410, The Permittee must describe the timing and sequence of mining in the IBC.

R645-301-525.420, The Permittee will describe how mining will be conducted in the IBC so that subsidence will not occur. The Permittee must include pillar size, pillar safety factors, and extraction ratios.

R645-301-525.440, The Permittee must have a subsidence monitoring plan what will monitor the room and pillar areas for an extended amount of time. The Division recommends that the Permittee monitor the room and pillar areas for subsidence every few years until final bond release.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Coal mine waste.

In Section 5.28.30 of the PAP the Permittee states:

The waste generated by the normal underground mining activities will be brought outside the mine for disposal which includes, but not limited to the following: wood, paper, scrap metal, belting, etc., could possibly be disposed of underground on pillar lines in accordance with MSHA regulations.

The Permittee proposes to remove the following:

... which include, but not limited to the following: wood, paper, scrap metal, belting, etc., could possibly be disposed of underground on pillar lines in accordance with MSHA regulations.

The Permittee also makes a commitment to remove scrap metal and used equipment from the mine unless safety considerations prevent removal.

The Division and the USFS now require all permittees to inventory the noncoal waste that is left underground. By removing as much of the noncoal waste as possible from underground the Permittee will have less material to inventory.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps.

Plate 1-1 show the existing permit boundaries in addition to the 50-acre IBC. Other maps and plate also show the proposed change to the permit boundary.

Mine workings maps.

Plate 5-2A shows the projected mine workings for the existing permit boundary and the proposed 50-acre IBC. As mentioned in the subsidence section of this TA the Permittee must give the Division detailed information about pillar design and placement. That information should be shown on Plate 5-2A.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the Permittee must provide the following in accordance with:

R645-301-525.420, The Permittee will describe how mining will be conducted in the IBC so that subsidence will not occur. The Permittee must show those area in the 50-acre IBC where pillars will be left to prevent subsidence.

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RECLAMATION PLAN

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

In Section 5.42.60 of the PAP, the Permittee clarifies the reclamation plan for the main road through the mine site. The USFS now wants the Permittee to remove the asphalt surface. The Permittee restated their commitment to reclaim the road to the specification stated in the road use permit.

Findings:

The Permittee met the minimum requirements of this section.

Recommendations:

The amendment has deficiencies that must be resolved prior to approval. The Permittee made several hydrologic changes in the engineering section of the PAP. Prior to approval the Division hydrologist should review the engineering section and make findings about the proposed changes to the hydrological issues.