

0016



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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July 26, 2000

TO: **Internal File**

THRU: Mike J. Suflita, Team Lead *MJS*

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

RE: UP&L Tract, Incidental Boundary Change, Canyon Fuel Company, LLC, Skyline Mine ACT/007/005-IB00B

SUMMARY:

On July 6, 2000, the Division received a request for an incidental boundary change at the Skyline Mine. The permittee proposed to add 459 acres in Sections 2 and 3 in Township 14 South, Range 6 East. The surface and coal belong to UP&L. They want to lease the coal because the only reasonable access to the coal is through the Skyline Mine. The Division reviewed the request for an incidental boundary change and found several deficiencies. Those deficiencies must be addressed before the incidental boundary change can be approved.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR Sec. 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR Sec. 783.12; R645-301-521.

Analysis:

The permittee must include a permit boundary map. Many maps show the permit boundaries but they are not always updated when a change occurs in the permit boundary. The

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permit boundary map will be one map that is updated every time a permit boundary change occurs. The permit boundary map must show the permit boundaries, the number of permitted acres, the dates and changes to the permit boundaries. The permittee must reference the permit boundary map in the Mining and Reclamation Plan (MRP).

Map 3.1.8-3, Mine 3 Level 2 Mine Plan Including UP&L Tract, shows that mining has occurred outside the permit boundaries. See Township 13 South Range 6 East W1/2 of Section 24 and the W1/2 of Section 25. The permittee must change the mine plan to that mining will only occur in within the permit boundaries.

Findings:

The 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:

R645-301-521.141 and R645-300-121.120 The permittee must give the Division a Permit Boundary Map. The Permit Boundary Map must show permit boundaries, the number of permitted acres, the dates and changes to the permit boundaries. While several maps show the permit boundaries, they are not always updated every time a permit boundary change occurs. To avoid confusion the permittee must include a permit boundary map and reference that map in the MRP.

R645-301-521.141 The permittee must change the mine plan so that all mining will occur within the permit boundaries. Map 3.1.8-3, Mine 3 Level 2 Mine Plan Including UP&L Tract, shows that mining has occurred outside the permit boundaries. See Township 13 South Range 6 East W1/2 of Section 24 and the W1/2 of Section 25.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Existing Structures and Facilities Maps

The permittee did not state if there are any existing structures in the UP&L tract.

Existing Surface Configuration Maps

The existing surface configuration (topography) is shown on several maps, such as Map 1-6.1, Land Ownership. The topography is copied from U.S. Geological Survey (USGS) topographic maps and is considered adequate by the Division. Since no surface disturbance is proposed, the Division does not need to have detailed surface maps showing the premining, operation and proposed reclamation contours.

Mine Workings Maps

The permittee did not show any existing mine workings in the area proposed to be added to the permit boundaries on the mine maps.

Permit Area Boundary Maps

The permittee must include a permit boundary map. Many maps show the permit boundaries but they are not always updated when a change in the permit boundary occurs. The permit boundary map will be the one map updated every time a permit boundary change occurs. The permit boundary map must show the permit boundaries, the number of permitted acres, the dates and changes to the permit boundaries. The permittee must reference the permit boundary map in the MRP.

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R645-301-526.141 The permittee must state if whether structures exist on the UP&L permit addition. If structures do exist, they must be identified in the text and on maps.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

Type and Method of Mining Operations

The mine map that the permittee gave the Division shows longwall panels will be used in the UP&L tract. Longwall mining is the standard mining method at the Skyline mine. The permittee will not need any new surface facilities to support the mining in the UP&L tract.

Facilities and Structures

The permittee did not propose any new surface facilities or structures to support mining in the UP&L tract.

Findings:

The permittee met the minimum requirements of this section.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR Sec. 784.12; R645-301-526.

Analysis:

The permittee did not address this issue. The permittee needs to state what structures if any are in the proposed permit area.

Findings:

The 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:

R645-301-526.141 The permittee must state if whether structures exist on the UP&L permit addition. If structures do exist, they must be identified in the text and on maps.

COAL RECOVERY

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

Analysis:

The UP&L tract has natural boundaries that make access to the coal difficult except from the Skyline Mine. The west and south boundaries are the shore line of Electric Lake. The east boundary is the Connonville Fault. The only practical access to the UP&L tract is though the north via the Skyline Mine. The longwall panels have been set up to maximize coal recover.

UP&L and its parent companies operate coal mines in Utah. The Division assumes that UP&L and its parent companies have reviewed and approved the coal recovery program.

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.

Renewable resources survey

The permittee did not include a renewable resource survey for the UP&L tract. However, information in the amendment shows that water rights and other renewable resource exist in the area. Thus, the permittee developed a subsidence control plan for the UP&L tract.

Subsidence control plan

The subsidence control plan must contain the following:

A map of the permit and adjacent areas at a scale of 1:12,000 or larger showing the location of and types of structures and renewable resources in the area that could subside is required. The permittee did not give the Division a subsidence map at that scale.

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The Division overlaid Map 4.17.1-1, Extent of Planned and Controlled Subsidence Areas, over Map 3.1.8-3, Mine 3 Level 3 Mine Plan Including the UP&L Tract. The full support mining pipeline buffer - no subsidence area is above longwall operations.

The Division contacted the permittee about this issue. The permittee said the pipeline over the UP&L tract is scheduled to be abandoned. They will update the maps to show that the pipeline corridor has been removed.

- A description of the method to remove coal including the size sequence and timing for development of the underground workings must be included amendment. Map 3.1.8-3, Mine 3 Level 2 Mine Plan Including UP&L Tract, shows the mine layout. Longwall mining will be the only method used to extract coal. The permittee did not include the timing for mining and development work.
- The permittee did not include a map that shows the extent of projected subsidence. The Division is very concerned about subsidence because of the proximity of Electric Lake. R645-301-525.541 states that an angle-of-draw of 30° will be used unless the permittee can show that another angle should be used. Thus the permittee has the responsibility to use either a 30° angle-of-draw or show why another angle should be used.

On Page 4-94 of the MRP the permittee states that a 22° angle-of-draw will be used. The support for the 22° angle-of-draw is based on the permittee's data of the Skyline mine and other comparable mining in the Wasatch Plateau. The permittee needs to show why the 22° angle of draw should be used. The support of the 22° angle of draw must include reference to all studies and why they are valid for the UP&L tract. All references need to be readily available to the Division, if not then the permittee has the responsibility to provide the information.

The permittee states on Page 4-49 of the MRP the following:

There will be no mining caused subsidence under either the Electric Lake Reservoir, Upper Huntington Creek and Bolger Creek inlets to the reservoir, and no mining from which subsidence at the a 22° (from vertical) angle of draw would influence either these reservoir inlets or the high-water level of Electric Lake Reservoir. Map 4.1.1-1 shows the Electric Lake and the inlet buffer zone within which there will be no mining without Division/U. S. Forest Service approval.

The permittee needs to show that mining will not cause subsidence to occur in or near the shore of Electric Lake Reservoir or its inlets. The Division is concerned that subsidence could occur in the Jones Canyon inlet.

- The permittee did not include a description of the monitoring program for the UP&L tract. Map 4.17.5 needs to be updated to include the location of the monitoring points used to measure subsidence in the UP&L tract.

- The permittee needs to state if there are any areas within the UP&L tract that will be protected from subsidence. If such areas exist then the permittee needs to explain how those areas will be protected.
- The permittee described the anticipated effects of planned subsidence in the Mining and Reclamation Plan (MRP). The effects of subsidence include a general uniform lowering of the surface lands in broad areas. Thereby limiting the material effect to those land and causing no appreciable change to present land uses and renewable resources.
- The permittee describes the measures to mitigate any subsidence-related material damage in the MRP. The permittee committed to repair any damage to surface facilities including highways and pipelines.

Performance standards for subsidence control

The permittee committed in the MRP to repair any subsidence damage to the extent technically and economically feasible. This is a standard commitment that the Division accepts for repair of subsidence damage.

The permittee cannot mine under impoundments with a storage capacity of 20 acre-feet or more of water (Electric Lake Reservoir) unless the subsidence control plan demonstrates that subsidence will not cause material damage or reduce the reasonably foreseeable use of the structure. The permittee needs to show that the proposed mining will not damage Electric Lake Reservoir.

If mining cause damage to Electric Lake Reservoir then the Division will suspend mining until a revised subsidence control plan is approved.

Notification

The permittee is required to notify at least six months prior to mining all owners and occupants of surface properties above the underground workings. Utah Power and Light owns both the surface and coal in the UP&L tract. Utah Power and Light has leased the coal right to the permittee. The permittee needs to document notification to the lessor.

Findings:

The 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 and R645-301-521.141 The permittee must include a map that shows the sequence and timing of the development work and underground mining in the amendment.

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R645-301-525.420 and R645-301-521.142 The permittee must show the areas scheduled to be subsided. The permittee must show that subsidence will not occur in either the James Canyon stream inlet or the high-water level of Electric Lake Reservoir. See Page 4-94 of the MRP for similar commitment. The permittee must show why full extraction mining would occur under the pipeline in Section 35. Overlay Map 4.17.1-1 and Map 3.1.8-3 for details.

R645-301-525.541 and R645-301-525.542 The permittee must use a 30° angle-of-draw when determining the subsidence boundaries or show why a lesser angle should be used. The permittee must reference any studies used to support a lesser angle. If those studies are not readily available then the permittee must supply the Division with a copy.

R645-301-525.110 The permittee must give the Division a copy of a map at a scale of 1:12,000 or larger that shows the location and type of structures and renewable resource lands that subsidence may materially damage or for which the value or reasonably foreseeable use may be diminished by subsidence, and showing the location and type of State-appropriated water that could be contaminated, diminished, or interrupted by subsidence.

R645-301-525.440 The permittee must give the Division a map that shows the location of the new monitoring points for the UP&L tract.

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

The permittee did not include an affected area map. The Division generally considers a permit map adequate to meet the requirements of the affected area map. The permittee did not give the Division a designated permit boundary map. The permittee did give the Division several maps that show the permit boundaries. Since the permittee does not update all maps when they submit an amendment, a permit boundary map is needed. The permit boundary map must show the permit boundaries, the number of permitted acres, the dates and changes to the permit boundaries.

Mining facilities maps

The permittee must show the location of the new gas pipeline. The new gas pipeline is

needed so that the permittee can use full extraction mining in the UP&L tract. An operating pipeline is found above the proposed working in the UP&L tract.

Mine workings maps

Map 3.1.8-3, Mine 3 Level 2 Mine Plan Including UP&L Tract, shows the scheduled mine workings. The map does not include the sequence and timing of the development work and underground mining.

Monitoring and sample location maps

The permittee did not include maps that show the location of the subsidence monitoring points for the UP&L tract.

Findings:

The 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:

R645-301-521.141 and R645-300-121.120 The permittee must give the Division a Permit Boundary Map. The Permit Boundary Map must show permit boundaries, the number of permitted acres, the dates and changes to the permit boundaries. While several maps show the permit boundaries, they are not always updated every time a permit boundary change occurs. To avoid confusion the permittee must include a permit boundary map and reference that map in the MRP.

R645-301-525.110 The permittee must give the Division a copy of a map at a scale of 1:12,000 or larger that shows the location and type of structures and renewable resource lands that subsidence may materially damage of for which the value or reasonably foreseeable use may be diminished by subsidence, and showing the location and type of State-appropriated water that could be contaminated, diminished, or interrupted by subsidence.

R645-301-525.410 and R645-301-521.141 The permittee must include a map that shows the sequence and timing of the development work and underground mining in the amendment.

R645-301-521.120 The permittee must show the location of the new gas pipeline. The new pipeline is needed to replace the existing one in the UP&L tract.

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RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

Since no new surface disturbance other than subsidence is anticipated, the permittee does not have to address this issue.

Findings:

The permittee met the minimum requirements of this section.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

Since no new surface disturbance other than subsidence is anticipated, the permittee does not have to address this issue.

Findings:

The permittee met the minimum requirements of this section.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

(The permittee is not planning any new mine openings.

Findings:

(The permittee met the minimum requirements of this section.

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:

(The permittee does not propose any changes to the existing road systems.

Findings:

(The permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

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

Analysis:

Reclamation surface and subsurface manmade features maps

(The permittee must show the location of the pipeline at the time of final reclamation.

Findings:

(The 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:

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R645-301-542.320 The permittee must give the Division a map that shows the location of the gas pipelines at the time of final reclamation.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount

There are no proposed mining activities in the UP&L tract for which the Division requires additional bond. The Division does not usually require a bond of activities outside the disturbed areas.

Findings:

The permittee met the minimum requirements of this section.

RECOMMENDATIONS:

The Division should deny the request for the incidental boundary change until the permittee corrects all the deficiencies in their application.