

0005



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

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

April 2, 2001

Dan Meadors, General Manager
Canyon Fuel Company, LLC
HC 35 Box 380
Helper, UT 84526

Re: Findings for Utah Power & Light Tract, Canyon Fuel Company, LLC, Skyline Mine,
C007005-IB00B-1, Outgoing File

Dear Mr. Meadors:

The above-referenced amendment has been reviewed and there are deficiencies that must be adequately addressed prior to approval. A copy of our Technical Analysis is enclosed for your information. Please respond to these deficiencies by May 30, 2001.

If you have any questions, please call me at (801) 538- 5325 or Mike Sufлита at (801) 538-5259.

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock".

Daron R. Haddock
Permit Supervisor

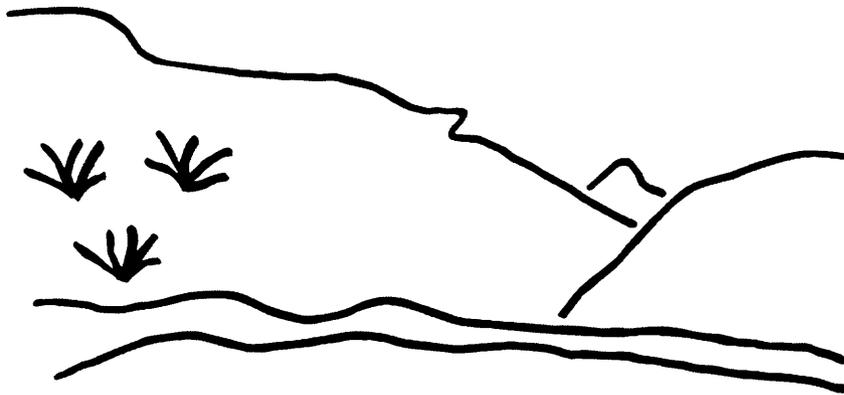
mjs/sm

Enclosure:

cc: Chris Hansen, Canyon Fuel Co.
Price Field Office

O:\007005.SKY\FINAL\DefIB00B1.wpd

State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Skyline Mine
IBC / UP&L Tract Amendment
C007005- IB00B-1
Technical Analysis
March 29, 2001

TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF OUTSTANDING DEFICIENCIES	3
ADMINISTRATIVE INFORMATION	5
OWNERSHIP AND CONTROL INFORMATION	5
VIOLATION INFORMATION	5
RIGHT OF ENTRY	6
UNSUITABILITY CLAIMS	6
PERMIT TERM, INSURANCE, PROOF OF PUBLICATION, AND FACILITIES USED IN COMMON	6
PUBLIC NOTICE AND COMMENT	7
FILING FEE	7
ENVIRONMENTAL RESOURCE INFORMATION	9
HISTORIC AND ARCHAEOLOGICAL RESOURCE INFORMATION	9
VEGETATION INFORMATION	9
FISH AND WILDLIFE RESOURCE INFORMATION	10
Wildlife Information	10
Threatened and Endangered Species	11
LAND USE RESOURCE INFORMATION	12
PERMIT AREA	12
GEOLOGIC RESOURCE INFORMATION	12
MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION	13
Coal Resource and Geologic Information Maps	13
Existing Structures and Facilities Maps	14
Existing Surface Configuration Maps	14
Mine Workings Maps	14
Permit Area Boundary Maps	14
Contour Maps	15
OPERATION PLAN	17
MINING OPERATIONS AND FACILITIES	17
Type and Method of Mining Operations	17
Facilities and Structures	17
EXISTING STRUCTURES:	17
PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES	18
COAL RECOVERY	18
SUBSIDENCE CONTROL PLAN	18

TABLE OF CONTENTS

Renewable resources survey	19
Subsidence control plan	19
Performance standards for subsidence control	20
Notification	20
FISH AND WILDLIFE PROTECTION PLAN	21
Protection and Enhancement Plan	21
Endangered and Threatened Species and Bald and Golden Eagles	22
HYDROLOGIC INFORMATION	22
Surface-water monitoring	23
MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS	25
Affected area maps	25
Mining facilities maps	25
Mine workings maps	25
Monitoring and sample location maps	25
RECLAMATION PLAN	27
APPROXIMATE ORIGINAL CONTOUR RESTORATION	27
BACKFILLING AND GRADING	27
MINE OPENINGS	27
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES	28
BONDING AND INSURANCE REQUIREMENTS	28
Determination of bond amount	28

INTRODUCTION

INTRODUCTION

On July 26, 2000 the Division received a proposal from Canyon Fuel Corp. to add 459 acres to the permit area for Skyline Mine. The new tract is located on privately owned property south of the existing permit area. The coal is owned by Utah Power & Light and would be mined through a lease agreement between the two parties because Skyline Mine has the most reasonable access to the coal. Deficiencies in the proposal were identified in a TA dated October 26, 2000. Skyline's response to that TA was received by the Division on February 21, 2001. This Technical Analysis is a response to the latest submittal and there are deficiencies.

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is not complete at this time, pending submittal of additional information by the permittee and further review by the Division, to address outstanding deficiencies in the proposal. A summary of those outstanding deficiencies is provided below. Additional comments, concerns and deficiencies may also be found within the analysis and findings made in this Draft Technical Analysis which have not been presented in this summary. Upon finalization of this review, any outstanding deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement action as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

- R645-301-112.500 and R645-301-112.600**, Surface land ownership information shown on Drawing 1.6-1 is not consistent with the information shown in the text, and this needs to be corrected. 5
- R645-301-121.200**, remove the reference on page 2-2 to Plate 2.2.1-1a because that Plate is no longer part of the submittal. 13
- R645-301-322**, The application includes what appears to be a typographical error that should be corrected. It says fish and macroinvertebrate studies were first done in James and Burnout Creeks in 2001, but this should probably be 2000. 12
- R645-301-521**, Provide current and correct mine maps of the already mined out areas as described above. 15
- R645-301-525.420 and R645-301-521.142** The permittee must show the areas scheduled to 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. 21
- R645-301-730, 1)** Include flume F-5, at the mouth of Burnout Canyon in the water monitoring plan and an explanation of the unused flume sites in the MRP and on the water monitoring map. 25

SUMMARY OF OUTSTANDING DEFICIENCIES

ADMINISTRATIVE INFORMATION

ADMINISTRATIVE INFORMATION**OWNERSHIP AND CONTROL INFORMATION**

Regulatory Reference: R645-301-112

Analysis:

The applicant has updated ownership and control information. This will need to be checked in the applicant violator system, but it appears to be complete.

The applicant has also updated the lists of owners of lands within and contiguous to the permit area and the associated land ownership maps. The information appears to be complete for coal ownership. There are three entities shown on Drawing 1.6-1 as owning land contiguous to the revised permit area that are not included in the text of the application. This needs to be corrected.

Findings:

Information in the application is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-112.500 and R645-301-112.600, Surface land ownership information shown on Drawing 1.6-1 is not consistent with the information shown in the text, and this needs to be corrected.

VIOLATION INFORMATION

Regulatory Reference: R645-301-113

Analysis:

The applicant has updated the violation information for the plan.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

RIGHT OF ENTRY

Regulatory Reference: R645-301-114

Analysis:

The application includes right of entry information for the proposed addition, including a copy of the lease between Canyon Fuel and PacifiCorp. Only part of the leased area would be included in the permit area, and the application includes a metes and bounds description of the area that would be added. The legal description appears to match the proposed addition shown on the maps in the application. This fulfills the regulatory requirements for providing right of entry information.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

UNSUITABILITY CLAIMS

Regulatory Reference: R645-301-115

Analysis:

The application includes no new information about unsuitability claims. The Division is unaware of any proposal to designate the area as unsuitable for mining.

Section 114 of the application contains a legal description of the permit area and the area proposed to be added. The legal description of the proposed addition appears to correspond to the maps in the application.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

PERMIT TERM, INSURANCE, PROOF OF PUBLICATION, AND FACILITIES USED IN COMMON

Regulatory Reference: R645-301-116 and -117

ADMINISTRATIVE INFORMATION

Analysis:

The permit term would not change with this proposal.

The applicant maintains an insurance policy, and the Division has a copy on file.

Because the application is for an incidental boundary change and not for a new permit or for a significant revision, public notice is not required.

The applicant is not using facilities in common with any other permitted operation.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

Because this is an incidental boundary change and not a significant revision, no public notice is required.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

FILING FEE

Regulatory Reference: 30 CFR 777.17; R645-301-118.

Analysis:

The Division only requires the filing fee for new permits and not for changes, renewals, or transfers of existing permits.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

ENVIRONMENTAL RESOURCE INFORMATION**HISTORIC AND ARCHAEOLOGICAL RESOURCE INFORMATION**

Regulatory Reference: R645-301-411.140

Analysis:

Appendix A-3 of the current mining and reclamation plan contains various cultural resources reports, mostly about the current permit area. There has been some survey work done in the proposed addition to the permit area as part of exploration operations. A report dated October 2, 1978, from Archeological-Environmental Research Corporation details a survey conducted in the area. One drill hole and about two seismic lines in the James Canyon area were surveyed, and nothing "of any significance" was found.

The applicant has fulfilled the regulatory requirement to include available cultural resource information about the area. In all of the cultural resource surveys of the area, including a 100% survey of disturbed areas and a 10% survey of the rest of the permit area, only a few sites were found, and none of these was considered eligible for listing in the National Register of Historic Places. The entire area proposed to be added to the permit area was not surveyed, but because of the lack of significant sites in the area, because there has been some survey work done with no cultural resource sites found, and because there will be no surface disturbance other than subsidence, information in the application is considered adequate.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

VEGETATION INFORMATION

Regulatory Reference: R645-301-321

Analysis:

Drawing 2.7.1-1a in the application shows vegetation communities in the proposed addition to the permit area. The four communities in the area are sagebrush/grass, riparian, conifer/timber, and aspen. The text of the application includes general descriptions of these areas.

The C-2 form indicates Drawing 2.7.1-1b, the soils map, should be added to the current plan, but it does not say whether Drawing 2.7.1-1a should be added or if it should replace the same drawing in the current plan. The Division assumes it is to be added like the soils map, but the applicant needs to make this clear on the C2 form.

Other than subsidence, no surface disturbance is planned, so detailed vegetation information is not required.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations. Drawing 2.7.1-1a does not have enough information to replace the vegetation map in the current plan but should supplement it, but the C2 form does not give instructions.. The applicant should correct the C2 form and show how the Division should handle this map.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: R645-301-322

Analysis:

Wildlife Information

Table 2.9-5 lists those animals classified by the Division of Wildlife Resources as Native Utah Wildlife Species of Special Interest. Other than this, the application includes no new wildlife information; however, the applicant commits to conduct multi-pass electrofishing to estimate fish populations in Burnout and James Creeks for two consecutive years and then every three years thereafter. The fish surveys will be done in the fall. According to the application, the first fish survey was done October 16, 2001, but this is a typographical error that should be corrected.

In addition to the fish survey, the applicant commits to do a macroinvertebrate study of James and Burnout Creeks twice a year for two consecutive years and every three years thereafter. The surveys will be done in the spring and fall, and the fall survey will coincide with the fish survey. According to the application, the first macroinvertebrate survey was done October 16, 2001, but this is a typographical error that should be corrected.

The surveys will continue for three years after active mining and subsidence stop unless statistical analysis demonstrates impacts have occurred or may occur. If damage occurs, mitigation efforts will be made to alleviate the mining impacts.

ENVIRONMENTAL RESOURCE INFORMATION

The commitments in the application have been discussed with the Division of Wildlife Resources and are in accordance with the decisions made in those discussions.

The annual report includes a map of raptor nests found in the area in 1999. There were no raptor nests found in the proposed addition to the permit area. Jeff Jewkes of the Forest Service has done ground surveys in the area. He confirmed in an August 2, 2000, telephone conversation that there are no known nests in the lower part of James Creek. There is one goshawk nest known from the lower part of Burnout Creek, but it has not been active in 2000.

Threatened and Endangered Species

The applicant has updated information about threatened and endangered species in Table 2.9-4. Although several plant species on the list in Table 2.9-4 occur in Emery County, most of these are low elevation, desert species that would not be expected in the proposed addition to the permit area. The only threatened or endangered species that could potentially be in the area are the bald eagle and the southwestern willow flycatcher.

Bald eagles are known to have four nest sites in Utah, and none of these is near the Skyline Mines. Bald eagles are likely to fly over the area in late fall through early spring and could forage in Electric Lake when it is not frozen, but there are no known roosting or other concentration sites in the immediate area.

Most confirmed southwestern willow flycatcher nests are at lower elevations than those in the proposed addition to the permit area, but it is suspected there could be some at high elevations, such as near Fish Lake in Sevier county. They nest in dense willow patches, and the area along Huntington Creek above Electric Lake could potentially provide some habitat. The riparian area along James Creek is mostly wet meadow, and the application says the main species in the area are Kentucky bluegrass, bentgrass, Ross sedge, water sedge, Nebraska sedge, Baltic rush, and tufted hairgrass. While the Division is aware of some willow patches, they are not dense and would not provide the type of habitat needed by this species.

Four fish species on the list in Table 2.9-4 occur in the upper Colorado River drainage basin, and although they would not be in the permit area, the mine has the potential, through water depletions, of adversely affecting these species. These potential effects are discussed in the fish and wildlife protection section of this analysis.

Findings:

Information in the application is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-322, The application includes what appears to be a typographical error that should be corrected. It says fish and macroinvertebrate studies were first done in James and Burnout Creeks in 2001, but this should probably be 2000.

LAND USE RESOURCE INFORMATION

Regulatory Reference: R645-301-411

Analysis:

The application includes no new information about land use in the proposed addition, so it is assumed the land uses are the same as those in the current permit area. These uses include recreation, grazing, and wildlife habitat. Since the vegetation communities are essentially the same as in the current permit area, it is reasonable to expect these same uses.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

PERMIT AREA

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

Analysis:

Drawing 1.6-3, Skyline Mines Permit Area map, is the ultimate source for all permit boundary information. The permit boundaries on Drawing 3.1.8-3, Mine 3 Level 2 Mine Plan, shows the proposed mine plan for the UP&L tract. All mining in Mine 3 Level 2 will occur within the permit boundaries. The permittee also gave the Division a copy of Drawing No. P:\Permit\Permit Acreage\Skylineacre, Reclamation Agreement, in an AutoCAD file. Both maps list the permit areas and acreage.

Findings:

The permittee met the minimum requirements of this section.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.22; R645-301-623, -301-724.

ENVIRONMENTAL RESOURCE INFORMATION

Analysis:

Only one minor change, a reference to additional surface geology mapped on Plate 2.2.1-1a, has been made to the text in Section 2.2 - Geology. However, with the February 2001 submittal, Plate 2.2.1-1a is no longer part of the proposed amendment and reference to it should be deleted from the text

The discussion of geologic resource information in the current MRP includes the area of the UP&L Tract IBC. New Plates 2.2.1-1 (Geology), 2.2.7-3 (Lower O'Conner 'B' Isopach Map), and 2.2.7-4 (Overburden Isopach Map Lower O'Conner 'B' Seam) that include the UP&L tract are in the submittal. Isopach information for the IBC area comes from bore holes 98-2-1, 98-3-1c, and 98-3-2c. Logs for these bore holes are in the Confidential folder. Water-invasion depths are noted on the logs, but no static water levels.

Bore hole 98-2-1 has been completed as water-monitoring well W2-1 in the Star Point Sandstone, below the Lower O'Conner 'B' seam. Water level measurements have been obtained from this well since 1998. The water level measurements are summarized in a table in Appendix Volume A-1, Hydrology.

Findings:

R645-301-121.200, remove the reference on page 2-2 to Plate 2.2.1-1a because that Plate is no longer part of the submittal.

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:**Coal Resource and Geologic Information Maps**

The submittal contains a new Plate 2.2.1-1 (Surface Geology) that covers the permit area including the UP&L tract and the adjacent areas. Coverage on this map extends only 1,000 feet beyond the southern boundary of the UP&L tract, but according to Plate 3.1.8-3 mining will stop approximately one-half mile north of that boundary, so Plate 2.2.1-1 covers sufficient area.

The Connellville Fault lies roughly along the eastern boundary of the IBC. Plate 2.2.1-1 shows north-south oriented faults that splay-off from this major fault into the UP&L tract. Another north-south fault is projected roughly through the middle of the UP&L tract.

New versions of Plates 2.2.7-3 (Lower O'Conner 'B' Isopach Map) and 2.2.7- 4 (Overburden Isopach Map Lower O'Conner 'B' Seam) are in the IBC submittal. On the current versions of these plates, the contour lines end at the permit area boundary: the new maps show the isopach thicknesses for the permit area, the IBC area, and a large adjacent area. Isopach information for the IBC area appears to come mainly from bore holes 98-2-1, 98-3-1c, and 98-3-2c. Plates 2.2.1-1 (Geology), 2.2.7-3 (Lower O'Conner 'B' Isopach Map), and 2.2.7- 4 (Overburden Isopach Map Lower O'Conner 'B' Seam) also show topography for the proposed permit area and adjacent areas.

Existing Structures and Facilities Maps

The only existing structure in or near the UP&L track is an abandoned pipeline.

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. The Lower O Conner seam is to be mined in the UP&L Tract. However, mining has already been completed in another seam under Burnout Creek. The subsidence in that drainage will be the cumulative effect of mining both seams. Overburden in the Burnout and James Creek drainages varies from about 650 feet in the creek bottom to 1,200 feet at the ridge tops. The Lower O Conner B coal seam thickness is about 15 feet in the area. It is not clear from either the mine maps in this submittal OR the mine maps in the current MRP on file in the Divisions library just where the previous mining is located in the Burnout Creek area. The mine maps in the MRP are dated 1993. Current and correct information is needed for proper evaluation of the total subsidence in the area. While the mine maps are included in the Annual Report, the MRP itself needs to reflect correct mined out conditions. The mine maps in the MRP need to be updated.

Permit Area Boundary Maps

Drawing 1.6-3, Skyline Mines Permit Area map, is the ultimate source for all permit boundary information. The permit boundaries on Drawing 3.1.8-3, Mine 3 Level 2 Mine Plan, shows the proposed mine plan for the UP&L tract. All mining in Mine 3 Level 2 will occur within the permit boundaries. The permittee also gave the Division a copy of Drawing No. P:\Permit\Permit Acreage\Skylineacre, Reclamation Agreement, in an AutoCAD file. Both maps list the permit areas and acreage.

ENVIRONMENTAL RESOURCE INFORMATION

Contour Maps

The existing surface configuration (topography) is shown on several maps, such as Map 1-6.1, Land Ownership. The topography is copied from 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.

Findings:

In its present form the submittal does not meet minimum regulatory requirements. Accordingly, the permittee must address those deficiencies as found within this Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

R645-301-521, Provide current and correct mine maps of the already mined out areas as described above.

Page 16
C/007/005-IB00B-1
Revised: March 29, 2001

ENVIRONMENTAL RESOURCE INFORMATION

OPERATION PLAN

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 only structure near the UP&L tract is an abandoned gas line. 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.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: R645-301-411.140

Analysis:

The proposed addition to the permit area contains no known cultural resource sites, so no protection plan should be needed. In a letter dated August 14, 2000, the Division of State History concurred with the Division's assessment that no sites would be adversely affected by mining in the Utah Power and Light Tract.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

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 through the north via the Skyline Mine. The longwall panels have been set up to maximize coal recovery.

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.

OPERATION PLAN

Analysis:**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 be subsided is required. The permittee gave the Division copies of Drawings 2.3.5-1 and 2.3.5-2 at a scale of 1:12,000. The Division is able to determine the location of the renewable resources within the permit area. Those renewable resources are surface and underground water.
- A description of the method to remove coal including the size, sequence and timing for development of the underground workings was shown on Map 3.1.8-3, Mine 3 Level 2 Mine Plan Including UP&L Tract.
- 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.

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 Division has allowed the permittee to use a 22° angle of draw and has no reason to change the angle of draw.

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 James Canyon inlet.

- The permittee shows the location of monitoring points for the UP&L tract on Map 4.17.5.
- 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 causes 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.

OPERATION PLAN

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:

R645-301-525.420 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.

FISH AND WILDLIFE PROTECTION PLAN

Regulatory Reference: R645-301-333

Analysis:**Protection and Enhancement Plan**

The environmental resources section of this analysis discusses commitments the applicant has made to monitor fish and macroinvertebrate populations in James and Burnout Creeks.

To mitigate for the potential loss of Burnout Creek as spawning habitat, the applicant paid for a fish ladder to be constructed at Boulger Reservoir. The intent of this fish ladder was to allow fish access to the upper part of Boulger Creek where they could spawn in case Burnout Creek became unavailable. According to the Division of Wildlife Resources, fish use the fish ladder, but it is not known whether fish from Electric Lake are able to spawn in the upper part of Boulger Creek as a result of the fish ladder. In a meeting held August 24, 2000, representatives of the Division of Wildlife Resources agreed they would be willing to survey for fish in Boulger Creek similar to what the applicant needs to do in Burnout and James Creeks.

The application contains a commitment to mitigate any negative mining-caused effects on James Creek. It is uncertain whether mining has caused any effects on fish using Burnout Creek as spawning habitat or if there will be any effects on the fish in James Creek. The fish and macroinvertebrate studies and the water monitoring should determine these effects for James Creek. If there are no effects, no mitigation will be required. If these studies determine there are adverse effects, the applicant will need to work with the Division and the Division of Wildlife Resources to determine appropriate mitigation measures.

Areas containing surface water and aspen are generally considered critical summer range for deer and elk. Also, all riparian areas are critical habitat. Most of the proposed addition to the permit area is in one of these categories.

Undermining the incidental boundary change area should have little effect on the value of the area for most terrestrial wildlife habitat. Trees sometimes fall or lean when an area subsides, and this can affect some bird species. Although nearly all birds are protected, raptors tend to be of greatest concern. There are no known raptor nests in the James Creek area. There is a goshawk nest in the Burnout Creek area, but the Division is unsure of its exact location in relation to mining. The current mining and reclamation plan contains commitments to monitor suitable raptor habitat in advance of mining, so this area should be checked before being mined. It appears from Drawing 3.1.8-3 that this area will be mined in 2002 or 2003.

According to the plan, if any nests are identified, they will be carefully monitored for subsidence-related damage during the nesting season. If the goshawk nest can be found and if it is active, the applicant will need to develop a protection plan.

Endangered and Threatened Species and Bald and Golden Eagles

Any water depletions are considered to negatively affect the threatened and endangered fish of the upper Colorado River basin. The application includes no new information about additional water use, and, according to verbal information from the applicant, this is because the mine would use no more water if this amendment is approved than it is currently using. Therefore, there should be no additional negative effects.

Because the proposed addition to the permit area contains no habitat for threatened or endangered species, no protection or mitigation measures are needed. There are also no known bald or golden eagle nests in the area.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

OPERATION PLAN

Analysis:**Ground-water and Surface-water monitoring**

The submittal is to amend the Mining and Reclamation Plan to add 459 acres at the southern end of the current permit area, adjacent to and east of Electric Lake. The additional acreage is in the lower James Creek drainage and constitutes about 30% of the total drainage area. The upper James Creek drainage is contained in the current permit and constitutes about 70 % of the total drainage area. About 33% of the 459 acres drains directly into Electric Lake.

As required, the ground water and surface water rights that are in the area are shown on Dwg.23-5-1-1, Surface Water Rights on and Adjacent to Skyline Property and Dwg. 23-5-2-1, Ground Water Rights on and Adjacent to the Skyline Property. A check of the Utah State Water Rights Internet pages showed that the rights shown were complete and accurate.

The water monitoring plan was revised to include two new springs. One is designated 2-413 and is located on the northeast corner of the new area. It was selected, "because of its proximity to the Connelville Fault, mining activity, and accessibility." The other is designated 3-290 and is located across Electric Lake about half-way up an unnamed drainage near the Sanpete and Emery County line. It was, "selected because it is located in an area where mining will not occur for some time and can be used as an undisturbed site for comparison to 2-413." These will be monitored for field and laboratory parameters the same as other springs in the MRP. Past water data for the springs from 1997 to 1999 is included in the submittal as part of Attachment to Appendix Volume A-1, UP&L Tract. This is the baseline water monitoring for the UP&L Tract.

One new well, W2-1 (W98-2-1) is also included in the MRP to monitor water levels in the well. The well is about 1,500 feet east of Electric Lake on a ridge at the south end of the UP&L Tract. Past water level data for the well from 1998 to the present is included in the submittal as part of Attachment to Appendix Volume A-1, UP&L Tract.

The water monitoring plan also included three new stream monitoring points as follows: CS-16, at the mouth of Swens Canyon, CS-17 at the mouth of Little Swens Canyon, and CS-18, at the mouth of Boulger Creek. These will all provide important baseline stream data for future development of the Flat Canyon Tract when that lease is mined. They also impact the UP&L Tract in that they provide baseline data for comparison to monitoring in James Canyon and Burnout Canyon. Both of these drainages are being undermined as part of the UP&L Tract mine plan. The field measurements and laboratory measurements for these springs will be the same as all other monitoring points in the MRP.

Other new water monitoring points in the plan are F-9 and F-10, two flumes to monitor flow and field parameters in James Canyon. F-9 is located at the Forest Service boundary about a half mile up from the mouth of the canyon and was previously established by an agreement between the Operator and the Forest Service. F-10 is located at the mouth of James. Flows at the two flumes will be monitored

monthly. Past water level data for flume F-9 from 1993 to 1999 is included in the submittal as part of Attachment to Appendix Volume A-1, UP&L Tract.

The Utah Department of Wildlife Resources (DWR) expressed concerns of inadequate monitoring in an August 10, 2000 letter to the Division. Subsequently, on August 23, 2000, a meeting was held to discuss this issue. Attendees included personnel from Skyline Mine, DOGM, and DWR. The outcome was a series of monitoring requirements that were believed to adequately protect James Creek. Included were new flow monitoring stations near the mouth of James and Boulger Creek, and invertebrate studies and fish population surveys in both streams. The meeting minutes were agreed to by all parties and the described monitoring program is included in the MRP as described above. The monitoring of fish populations and macroinvertebrate studies are contained in the Fish and Wildlife Resource Information section of this MRP. On September 7, 2000 all of the above agencies made a joint field trip to understand the field conditions. On October 5, 2000 the DWR sent another letter to DOGM indicating that, with these in place, "Skyline Mine can proceed with the permitting process for the undermining of James Canyon Creek area."

There is one item in the agreed monitoring plan that is NOT included in the MRP. There was to be a flow monitoring station at the mouth of Burnout Creek. Although Dwg. 2.3.6-1, Location of Hydrologic Monitoring Stations shows a flume, F-5, at that location, the flume is NOT included in the tables that enumerate the monitoring points. This flume needs to be added to the MRP monitoring plan. Also included on Dwg. 2.3.6-1 are additional flumes F-1 through F-4 and F-6 through F-8. These are located in upper Burnout Canyon and tributaries to Upper Huntington Creek. These are not part of the MRP and it's confusing why they are on the map locating water monitoring stations. Discussions with the operator indicate they are part of a Forest Service water monitoring commitment and are unrelated to the DOGM water monitoring plan. This should be explained in the MRP text and also in a footnote on Dwg. 2.3.6-1.

Since the coal is owned by Utah Power & Light, Inc.(UP&L), there is a lease agreement between them and Skyline Mine. That agreement is included in the submittal. That includes a provision to restrict mining to not occur within a buffer zone described as follows: "that area determined by a 22 degree draw angle from the bottom of the Coal seam being mined plus 25 ft. (measured horizontally) from the high water mark of Electric Lake, which is defined as an elevation of 8,575 feet above mean sea level." It appears that provision is being honored. See Dwg. 3.1.8-3, Mine 3 Level 2, Mine Plan Including UP&L Tract.

Findings:

In its present form the submittal does not meet minimum regulatory requirements. Accordingly, the permittee must address those deficiencies as found within this Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

OPERATION PLAN

R645-301-730, 1) Include flume F-5, at the mouth of Burnout Canyon in the water monitoring plan and an explanation of the unused flume sites in the MRP and on the water monitoring map.

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 gave the Division a designated permit boundary map. The permit boundary map shows the permit boundaries and the number of permitted and disturbed acres.

Mining facilities maps

The permittee shows the location of the new gas pipeline on Drawing 1.6-3, Skyline Mines Permit Area map. The map shows that the new gas pipeline will not interfere with full extraction mining 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 sequence and timing of the development work and underground mining.

Monitoring and sample location maps

The permittee shows the location of the subsidence monitoring points for the UP&L tract on Drawing 4.17.5-1, Subsidence Monitoring Points.

Findings:

The permittee met the minimum requirements of this section.

RECLAMATION PLAN

RECLAMATION PLAN**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.

BONDING AND INSURANCE REQUIREMENTS

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

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.

sm

O:\007005.SKY\FINAL\TA\TA_IB00B1.wpd