

September 4, 2003

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

Re: Lawrence Reservoir Stipulation Amendment, Canyon Fuel Company, LLC, Skyline Mine, C/007/0005, Task ID #1617, Outgoing File

Dear Mr. Meadors:

The above-referenced amendment is approved effective September 4, 2003. A stamped incorporated copy is enclosed for your copy of the Mining and Reclamation Plan.

With this approval we want to emphasize your obligation to conduct on the ground surveying (not just aerial) of Burnout Creek down to the confluence with Huntington Creek, as per the MOU between Canyon Fuel Company, LLC and the Forest Service.

Those federal agencies that received the amendment during the review process can simply incorporate it into their existing copy of the Mining and Reclamation Plan.

If you have any questions, please feel free to call me at (801) 538-5325.

Sincerely,

Daron R. Haddock  
Permit Supervisor

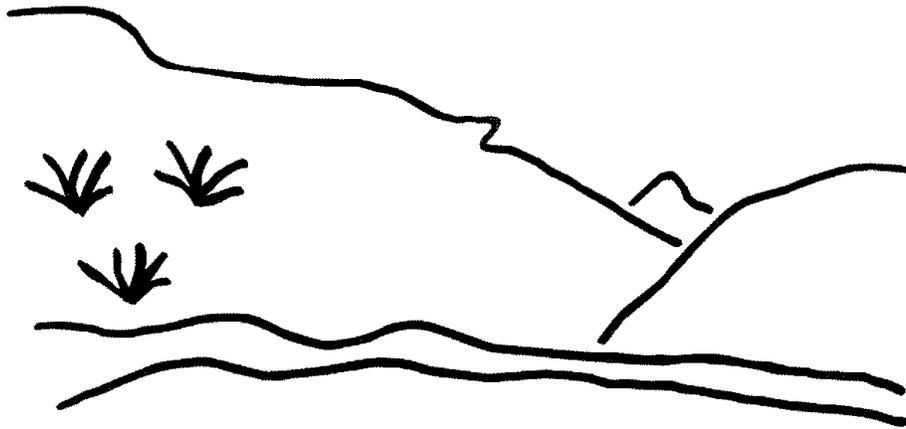
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Enclosure

cc: Ranvir Singh, OSM  
Jim Kohler, BLM  
Melissa Blackwell, USFS  
Mark Page, Water Rights w/o  
Dave Ariotti, DEQ w/o  
Derris Jones, DWR w/o  
Price Field Office

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# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Skyline Mines  
Lawrence Reservoir Stipulation  
C/007/0005, Task ID # 1617  
Technical Analysis  
July 31, 2003



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## TECHNICAL ANALYSIS

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# TECHNICAL ANALYSIS

The Division regulates the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings, which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference, which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

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**TECHNICAL ANALYSIS**

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## INTRODUCTION

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## INTRODUCTION

The Lawrence Reservoir - proposed in 1938 - was never built and the Utah State Engineer's Office closed the case file on August 8, 1961. When Federal Coal Lease UTU-044076 was initially issued, the area projected to be covered by the proposed Lawrence Reservoir was excluded from the lease, but on March 27, 2001 the BLM added the area to the lease. Copies of the March 27 letter from the BLM adding the reservoir site to Federal Coal Lease UTU-044076 and stating the stipulations was included as Exhibit 1.14-3 in the current MRP.

On April 8, 2002, BLM approved the Minor Modification to develop longwall panels 12 Left "A" and 12 Left "B" except for the mining under the old "Lawrence Reservoir site". Inclusion of the reservoir site in the Skyline Mine MRP was conditionally approved by the Division in TA C/007/005-02F dated July 16, 2002, but only first mining was allowed. Final approval was on August 14, 2002.

The BLM determined that impacts related to subsiding this area had been adequately addressed in previous NEPA documents, and in a certified letter to Skyline Mine dated March 17, 2003, the BLM approved longwall recovery of the 12 Left "A" panel that underlies a portion of the now-abandoned Lawrence Reservoir site. (NOTE: the March 17 letter contained a typographical error and stated that longwall recovery in panel 12 Left "B" had been approved, while the accompanying map correctly showed panel "A". BLM sent an amended version of the letter that approved longwall recovery in panel 12 Left "A" to the Permittee on May 6, 2003, and a copy was received by the Division on May 8, 2003.)

On April 17, 2003 the Permittee submitted an amendment to allow subsidence of a portion of the Lawrence Reservoir site (received by the Division on April 21, 2003.) Approximately 2.5 acres of the abandoned Lawrence Reservoir site within Burnout Canyon will be mined with the longwall method. (This amendment included a copy of the March 17 letter from the BLM.) The remainder of the abandoned reservoir site will not be undermined or affected by the proposed mining.

The BLM has stipulated that the area be monitored for surface effects due to subsidence. The 2.5 acres are within the mine's subsidence monitoring area. The Permittee stated in the April 17 cover letter to the amendment that while there are underground mining operations in this area – expected to last approximately 45 days - weekly site visits to inspect the ground surface would be done; however, this specific commitment was not in the MRP.

Water monitoring sites in Burnout Canyon are in place and are part of both the MRP and USFS monitoring requirements. The Permittee has asserted that no additional water monitoring

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sites are needed to monitor potential impacts of subsidence in this area of Burnout Canyon Creek, and stated in the cover letter to the amendment that semi-weekly monitoring of the flows in Burnout Canyon will continue, although this specific commitment is not found in the MRP. Also, impacts due to mining-induced subsidence are to be reported immediately to the Division, BLM, and Forest and impacts to the stream and ground surface will be mitigated employing the mitigation techniques described in the existing MRP.

The USFS had concerns that subsidence could result in reversal of stream gradient in lower Burnout Canyon Creek, formation of stream channel pools, loss of fish spawning habitat, impacts to riparian vegetation and fish habitat, and erosion of the stream channel (letter dated May 2, 2003 and received May 5, 2003.) In the letter approving the amendment to subside the Lawrence Reservoir area (May 5, 2003) the Division included a stipulation that:

Canyon Fuel must provide detailed stream (thalweg) profiles of the lower portion of Burnout Creek with photographic documentation (before and after subsiding the area) of stream channel changes, as well as flow monitoring. This information should tie in with the ongoing Burnout Creek study including macroinvertebrate population studies. An amendment to Canyon Fuel's MRP that addresses these stipulations, documents the current conditions and commits to mitigation for damages, must be submitted by June 30, 2003.

The Permittee submitted an amendment (Division Task # 1617, received June 26, 2003) that adds language to the MRP to address the Division stipulations and the USFS concerns. The changes are on pages 2-42, 2-42a, and 2-42b.

Using existing aerial photographs of the stream from its confluence with Huntington Creek upstream to the downstream end of the existing stream profile, the Permittee has obtained a presubsidence baseline survey of the lower sections of Burnout Canyon. The accuracy of the profile generated through the use of aerial photographs is at a minimum of +/- 0.2 feet (cover letter). This new profile of Burnout Creek has been tied into the stream profile generated when the Burnout study began, and it will be included with the annual study data submitted to the USFS.

Photographic evidence of changes to Eccles Creek that are caused by subsidence will continue to be collected. Thirteen photo-documentation sites have been established along Burnout Creek, and two sites, established in October 1998 and revisited and photographed in October of each year, are located within the Lawrence Reservoir area. If significant changes are noted in the stream profile between the 13 currently established documentation points, new photo locations will be created and photographs will be submitted to the USFS.

The Permittee will continue the macroinvertebrate studies in lower Burnout Canyon, as currently described in Section 2.8.1 of the MRP, to determine if any impacts occur to the macroinvertebrate populations as a result of mining activities.

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Water monitoring will continue in the canyon as specified in the Burnout Creek study and any damage to the canyon or its waters will be mitigated, as necessary, as currently described in the permit. Flow monitoring will also occur in accordance with the modified Burnout Canyon subsidence monitoring study. In Section 2.5.3 of the MRP, the Permittee has already committed to mitigate any damage to State appropriated waters in the Burnout Creek drainage.

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## INTRODUCTION

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## OPERATION PLAN

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# OPERATION PLAN

## SUBSIDENCE CONTROL PLAN

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

### Analysis:

#### Performance Standards For Subsidence Control

Using existing aerial photographs of the stream from its confluence with Huntington Creek upstream to the downstream end of the existing stream profile, the Permittee has obtained a presubsidence baseline survey of the lower sections of Burnout Canyon. The accuracy of the profile generated through the use of aerial photographs is at a minimum of +/- 0.2 feet (cover letter). This new profile of Burnout Creek has been tied into the stream profile generated when the Burnout study began, and it will be included with the annual study data submitted to the USFS.

Photographic evidence of changes to Eccles Creek that are caused by subsidence will continue to be collected. Thirteen photo-documentation sites have been established along Burnout Creek, and two sites, established in October 1998 and revisited and photographed in October of each year, are located within the Lawrence Reservoir area. If significant changes are noted in the stream profile between the 13 currently established documentation points, new photo locations will be created and photographs will be submitted to the USFS.

### Findings:

The permittee has met minimum requirements for the Subsidence Control Plan section.

## FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

**Analysis:**

The Permittee will continue the macroinvertebrate studies in lower Burnout Canyon, as currently described in Section 2.8.1 of the MRP, to determine if any impacts occur to the macroinvertebrate populations as a result of mining activities.

**Findings:**

The permittee has met minimum requirements for the Fish and Wildlife Information section.

**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.

**Analysis:**

**Groundwater nitoring**

There are two monitored springs and two water-monitoring wells higher in the drainage (Dwg. No. 2.3.6-1). The Permittee feels no additional water monitoring sites are needed to monitor potential impacts of subsidence in this area of Burnout Canyon Creek.

**Surface Water nitoring**

Burnout Creek is monitored at station CS-7 just below the Lawrence Reservoir site, and there are four other flumes higher in the drainage (Dwg. No. 2.3.6-1). The Permittee feels that no additional water monitoring sites are needed to monitor potential impacts of subsidence in this area of Burnout Canyon Creek.

Water monitoring will continue in Burnout Canyon as specified in the Burnout Creek study, and any damage to the canyon or its waters will be mitigated, as necessary, as currently described in the permit: in Section 2.5.3 of the MRP, the Permittee has already committed to mitigate any damage to State appropriated waters in the Burnout Creek drainage. Flow monitoring will also occur in accordance with the modified Burnout Canyon subsidence monitoring study.

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## OPERATION PLAN

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### **Findings:**

The permittee has met the minimum requirements of the Hydrologic Information section.

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