

July 31, 2003

TO: Internal File

FROM: James D. Smith, Environmental Scientist and Team Lead

RE: Lawrence Reservoir Stipulation, Canyon Fuel Company, LLC, Skyline Mines, C/007/0005, Task ID # 1617

SUMMARY:

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.)

TECHNICAL MEMO

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 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. The Permittee has amended the MRP to describe the methods that will be used to provide the information stipulated in the May 5, 2003 letter approving amendment C/007/005-AM03E: the stipulated information is not provided, but the

methods for obtaining and reporting the information in the context of ongoing studies and monitoring are described.

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.

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.

TECHNICAL ANALYSIS:

OPERATION PLAN

SUBSIDENCE CONTROL PLAN

TECHNICAL MEMO

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.

Findings:

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

RECOMMENDATIONS:

The Permittee has amended the MRP to describe the methods that will be used to provide the information stipulated in the May 5, 2003 letter approving amendment C/007/005-AM03E: the stipulated information is not provided, but the methods for obtaining and reporting the information in the context of ongoing studies and monitoring are described. Approval of this amendment is recommended.