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INCOMING C0410002  
TASK NO. 2703

**From:** "Davis, Mike" <MDavis@archcoal.com>  
**To:** "Hedberg, Wayne" <waynehedberg@utah.gov>  
**Date:** 12/19/2006 8:24:29 AM  
**Subject:** Sufco East Fork of Box Canyon Video Taping MRP Amendment

Wayne,

Attached is a scanned copy for your review of the Sufco Amendment for the East Fork of Box Canyon Video Taping to clarify the conflicting timing in the Sufco Mine MRP. The original and eight copies are being mailed to the Division to be incorporated into the Sufco MRP.

If you have any questions please email or give me a call at (435) 286-4421.

Thanks,

Mike

\*\*\*\*\* Email Disclaimer \*\*\*\*\*

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**CC:** "Hansen, Chris" <CHansen@archcoal.com>, "Byars, John" <JByars@archcoal.com>, "Fluke, Steve" <stevefluke@utah.gov>, "Pete Hess" <petehess@utah.gov>



Canyon Fuel  
Company, LLC.  
Sufco Mine

A Subsidiary of Arch Western Bituminous Group, LLC.

Ken May, General Manager  
397 South 800 West  
Salina, UT 84654  
(435) 286-4400 - Office  
(435) 286-4499- Fax

December 18, 2006

Mr. D. Wayne Hedberg  
Utah Coal Regulatory Program  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P. O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: East Fork of Box Canyon Video Taping, Canyon Fuel Company, LLC, SUFCO Mine  
C/041/002

Dear Mr. Hedberg:

Per your Division letter dated November 27, 2006, the enclosed eight complete clean copies of the East Fork of Box Canyon Video Taping Amendment are being submitted as requested to clarify the conflicting timing for the video taping as described in the Sufco Mining and Reclamation Plan (M&RP) to September 2008. Attached are DOGM forms C-1 and C-2 and appropriate pages.

If you have any questions or need additional information, please contact Mike Davis at (435) 286-4421.

Sincerely,  
CANYON FUEL COMPANY, LLC  
SUFCO Mine

A handwritten signature in cursive script that reads "Kenneth E. May".

Kenneth E. May  
General Manager

Encl.

KEM/MLD:kb

cc: DOGM Correspondence File

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** CANYON FUEL COMPANY, LLC

**Mine:** SUFACO MINE

**Permit Number:** C/041/002

**Title:** East Fork of Box Canyon Video Taping

**Description,** Include reason for application and timing required to implement:

Conflicting timing for the video taping as described in the Sufco Mining and Reclamation Plan (M&RP)

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?

*Explain:* \_\_\_\_\_

- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)**

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

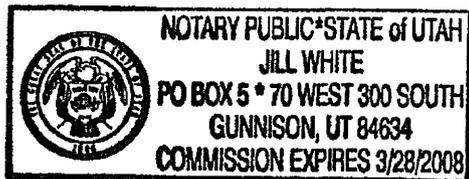
KENNETH E. MAY, MINE MANAGER  
Print Name

*Kenneth E. May* 12/19/06  
Sign Name, Position, Date

Subscribed and sworn to before me this 19<sup>th</sup> day of December, 2006

*Jill White*  
Notary Public

My commission Expires: \_\_\_\_\_, 20\_\_\_\_ }  
Attest: State of \_\_\_\_\_ } ss:  
County of \_\_\_\_\_ }



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Received by Oil, Gas & Mining



snails are present in the general area because of its isolated location and since the source of water only became available after the mine closed in the 1950's. Amphibians have not been reported in the area, possibly for the same reasons as those listed previously for the mollusks.

**East Fork Of Box Canyon.** Sufco intends to undermine portions of the East Fork of Box Canyon beginning in the Fall of 2003 through 2005 as they extract coal from the 3LPE and 4LPE longwall panels. Prior to the initiation of undermining and subsidence, a pre-subsidence qualitative evaluation of vegetation and channel conditions will be conducted in the East Fork of Box Canyon from the Joe's Mill Ponds downstream to a location above the west gate roads associated with the 3LPE panel. The survey will consist of video taping the condition of the stream channel paying particular note to surface flows and ground water discharge, vegetation types and conditions, animal species in the area including documenting the absence or presence of macroinvertebrates in the stream channel by filming the turning over of rocks or debris, general soil conditions, and the general geomorphology of the area. A qualified botanist will be used to identify and report in the video tape the major representative plant species along the stream channel. This will include riparian and spring locations found along the stream channel. Major hanging gardens will be identified and discussed. The general stream morphology will be discussed in the video including the width and depth of pools, height of natural drops, existing joints, cracks, and fractures, locations where flows naturally diminish or increase, etc.

A video tape will be made of the same portion of the East Fork at the same time of the year on the third year following undermining during September of 2008. A comparison will be made of the two tapes using the parameters described above and any changes due to mining activities will be noted. The tapes will be submitted to the Division as part of the Annual Report; the Fall 2003 video tape will be submitted with the 2003 Annual Report and the comparison tape will be submitted with the 2008 Annual Report.

Fourteen sites have been identified and established during the qualitative pre-subsidence survey for use in a quantitative evaluation of site-specific vegetative and hydrologic conditions (See Chapter 7 Section 7.3.1.2) The site locations have been mapped and identified in the field with stakes and

surface water from the creek, sealing of these cracks will be done with bentonite grout. Use of bentonite grout for the sealing of the cracks in the channel floor is discussed in Section 3 of the Pines Tract FEIS (1999) and in more detail in the following section.

#### East Fork of Box Canyon Subsidence Monitoring and Mitigation

Portions of the East Fork of Box Canyon will be undermined and subsided as longwall panels 3LPE and 4LPE are extracted in 2003 through 2005. A monitoring plan that is more intensive than the general permit area has been proposed for monitoring vegetation, surface and ground water flows, and subsidence cracks and repair of the cracks in the portions of the East Fork to be undermined. The subsidence portion of the monitoring program is discussed in detail in the following text.

Prior to the initiation of undermining and subsidence, a presubsidence survey will be conducted in the East Fork of Box Canyon from the Joe's Mill Ponds downstream to a location above the west gate roads associated with the 3LPE panel. The survey will consist of video taping the condition of the stream channel paying particular note to surface flows and ground water discharge, vegetation types and conditions, animal life in the area including macroinvertebrates in the stream channel, soil conditions, and the general geomorphology of the area. A follow-up video survey will be made at the same time of year on the third year following undermining during September of 2008. A general comparison between the two tapes will be made to determine what, if any, effects to the parameters described above have occurred. The biological aspects of the video tape are discussed in greater detail in Section 3.2.2.2 while the monitoring of surface and ground water flows are discussed in Section 7.3.1.2.

The subsidence monitoring plan for the East Fork of Box Canyon will include frequent inspection of the stream channel during and after active subsidence. While mining is occurring under the stream channel and within the 15-degree angle-of-draw above the active longwall face, that area of the channel will be inspected twice a week for subsidence cracks or other related features. As the longwall face advances and the 15-degree angle-of-draw area follows, the portions of the channel that now lie outside the 15-degree angle-of-draw will be monitored for subsidence features on an every two week basis for eight weeks. Following the eight week period, the features will be monitored on a quarterly basis for two years following the cessation of subsidence related effects,

**APPENDIX 3-10**

**Monitoring and Mitigation Plan  
for Mining Under the East Fork of Box Canyon**

## Monitoring and Mitigation Plan for Mining Under the East Fork of Box Canyon

Implementation of the following mitigation plan will quickly identify surface disturbance or impacts from subsidence fractures intercepting spring and stream flows. Frequent monitoring to monitoring will establish the degree of impacts to water resources, vegetation, wildlife and other uses.

The monitoring and mitigation plan adopted by the permittee should provide sufficient data for all stockholders associated with these resources and lands to make a determination of the degree of impacts. Information and data collection will be continuous before the area is mined, throughout the mining period, and after mining is past, until impacts are not detectable.

### Hydrological and Subsidence Mitigation Plan for Mining Under Panels 3LPE and 4LPE in the East Fork of Box Canyon

#### Subsidence R645-301-525.454

- Conduct pre- and post-mining video surveys of the East Fork of Box Canyon stream channel over panels 3LPE and 4LPE. The Permittee must conduct a post-mining survey during September of 2008. This post-mining video survey must apply the same procedures as the video survey conducted September 2003.
  - o Videotape the stream channel from Joe's Mill Ponds to the west gate road of the 3LPE panel.
  - o Establish at least 10 stations to portray stream flow, vegetation, soils, etc. GPS coordinates shall be obtained for each site. Each site must be documented with fixed photo points that can be reproduced during subsequent monitoring intervals (see #4 below). Identify and survey in the Thalweg. Monitor at least two pools and associated falls in the perennial section of the channel. Two sites must include EFB9 and EFB11. Monitoring criteria must include width and depth of the pools, and height of fall structures.
  - o Establish location of perennial flow, gaining/losing reaches of the stream channel.
  - o Qualified botanist must participate in the taping of the channel video.
    - Identify major representative plant species along the stream channel and riparian and spring areas (5 springs: 2 have two separate discharge sites that merge into a single channel leading towards the stream).
    - Identify hanging gardens.
  - o Video tape and mention all animal species present:
    - Macroinvertebrate presence at water monitoring stations along the stream channel and riparian and spring areas.
    - All other animal species along the stream channel and riparian and spring areas.