



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

December 26, 1984

CERTIFIED RETURN RECEIPT REQUESTED  
(P396 996 939) P402 457 089

Mr. Kerry Frame  
Chief Engineer  
Southern Utah Fuel Company  
P. O. Box P  
Salina, Utah 84654

Dear Mr. Frame:

RE: Approval Requirements for the Convulsion Canyon Mine,  
Southern Utah Fuel Company, Convulsion Canyon Mine,  
ACT/041/002, #3, Sevier County, Utah

The stream channel restoration has been and still is a source of concern as well as confusion. This letter enumerates the chronology of events and the information that must be supplied to the Division no later than January 18, 1985.

The Division's technical staff has reviewed the proposals for stream channel restoration plans submitted to the Division on April 5 and May 11, 1984 by Southern Utah Fuel Company (SUFCo). These review comments and concerns were included in a Technical Analysis stipulation and forwarded to OSM, Denver, in July 1984, for their review and concurrence. OSM's concerns along with both the Fish Lake and Manti-LaSal forests were received by the Division in the early part of December 1984.

As there were some significant concerns regarding the stream channel restoration plans, a meeting with OSM and Fish Lake National Forest was held on December 13, 1984 at the Division offices. The major concern was the high energy that the stream would have in its restored configuration. The

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proposed uniform riprapped channel on steep slopes (10 - 37 percent) did not provide sufficient protection to allow the Division and OSM to make a finding that the plans complied with UMC 817.44(d).

During this meeting, Forest Service personnel, Mr. Darrel Hintze and Mr. Bob Marchant, indicated they had met with SUFCo in April 1984 to discuss the plans submitted to the Division on April 5, 1984. The Forest Service indicated that SUFCo's representatives had agreed to modify the plans to reduce the channel slope by including gabion drop structures in the channel at selected locations. The configurations and gabions would dissipate the stream energy in free-fall over the gabions and would allow use of smaller diameter riprap in the stream reaches between the drops.

Mr. Hintze described the proposed gabion drop structures:

Durable riprap of uniform size (approximately 1.5 ft diameter) wrapped in chain-link fence or similar enclosing material.

The gabions laid in two offset layers, similar to stairs up the channel. The upper gabion would reduce flow velocity by a ponding action behind the gabion, while the lower gabion would act as an energy dissipation structure for the water flowing over the upper gabion to impact on.

The stability of the gabions is insured by keying into the channel sides a minimum of six feet and the channel bottom a minimum of two feet.

The upper gabions should be raised to three quarters of the expected flow depth during the design event to provide adequate velocity dissipation.

Confusion arose because SUFCo apparently did not make any of the modifications in the plans requested by the Forest Service and did not forward the updated plans to the Division and OSM. The Forest Service could not understand the concerns of OSM and the Division concerns and OSM and the Division could not understand why the Forest Service was not concerned. Thus, the delay since July 1984.

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The December 13, 1984 meeting clarified the agency confusions about the stream channel restoration. Based on the meeting discussion and comments from the regulating agencies, the following items must be addressed by SUFCo:

- (a) The plans for stream channel restoration must be revised to include the gabion drop structures as proposed by the Forest Service (Fish Lake). Calculations must be submitted (1) demonstrating an acceptable velocity can be maintained through the restored stream channel, (2) demonstrating that flow through the transition zones (the significant slope changes where the upper drainages flow onto the fill pad, where the slope of the fill increases, and where the drainage from the fill meets the natural stream channel) could be adequately handled, (3) the sizing of riprap for both the gabions and the channel reaches between the gabions were adequate.
- (b) The applicant must demonstrate that the side slope stability of the stream channel is acceptable and that the revegetation plan will adequately protect the integrity of the sideslopes against erosion.
- (c) The applicant shall address the concerns of the Manti-LaSal Forest regarding subsidence and hydrologic monitoring (addressed in the November 15, 1984 letter from Reed C. Christensen, Forest Supervisor, to Allen Klein, Administrator, OSM, Denver) (copy enclosed).
- (d) The applicant must address the concerns of OSM, the Fish Lake Forest, and the Division, regarding fill regrading. It appears that more fill will be cut than can be used in the regrading of the pad for the proposed channel configuration. The applicant must either show that excess material will not result or indicate where the additional material will be placed.

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The above required information must be supplied to the Division no later than January 18, 1985. A minimum of 15 copies of the requested information must be supplied to aid in obtaining an expeditious review from the involved agencies. If you have any questions please contact Sue Linner, Tom Suchoski, or Randy Harden of the Division Staff.

Best regards,



Ronald W. Daniels  
Acting Administrator  
Mineral Resource Development  
and Reclamation Program

btb  
Enclosure  
cc: Allen Klein  
Bill Kovacic  
Darrel Hintze  
Reed Christensen  
Ron Daniels  
Randy Harden  
Wayne Hedberg  
Sue Linner  
Tom Suchoski

0078R



United States  
Department of  
Agriculture

Forest  
Service

Manti-LaSal  
National Forest

599 West Price River Drive  
Price, Utah 84501

copy to Sue  
Linn  
File ACT/04/1882  
E/M/2

Reply to: 2820

Date: November 15, 1984

Allen Klein, Administrator  
OSM - Reclamation and Enforcement  
Brooks Towers - 1020 15th Street  
Denver, Colorado 80202

Dear Mr. Klein:

Two letters sent to the OSM Office in Denver by the Manti-LaSal National Forest dated January 11, 1984 and January 26, 1984, discussed concerns with the Convulsion Canyon Mine development on Federal Coal Leases U-062453 and U-28297. The concerns identified were: (1) the integrity of Quitcupah Creek be maintained downstream from the private property where undermining of the creek has taken place, (2) the escarpments be protected in such a manner that failure resulting from mining activities does not occur, and (3) that Southern Utah Fuel Company establish a subsidence monitoring plan that meets the need of the Forest Service and the intent of the regulations. The Forest Service has been and is willing and available to work with Southern Utah Fuel Company to develop such a subsidence monitoring plan.

To continue our cooperative efforts, I will consent for the Manti-LaSal National Forest to the Convulsion Canyon Mining and Reclamation Plan subject to the Forest receiving satisfactory responses to the above mentioned concerns.

Sincerely,

REED C. CHRISTENSEN  
Forest Supervisor

RECEIVED  
DEC 13 1984

DEPARTMENT OF  
OIL, GAS & MINING

