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United States Department of the Interior  
OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
[Redacted]  
DENVER, COLORADO 80202

Brooks Towers  
1020-15th Street

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*MKS*  
*LES*  
*79*  
*MAN*  
*JWS*  
*TIS*

May 1, 1980

#7  
c/ACT/041/002  
**RECEIVED**  
MAY 5 1980

Mr. Ron Daniels  
Coordinator of Mined Land Development  
Department of Natural Resources  
1588 West North Temple  
Salt Lake City, Utah 84116

DIVISION OF  
OIL, GAS & MINING

Dear Mr. Daniels:

Enclosed please find copies of on-site inspection reports. The inspections were conducted within Convulsion Canyon Mine during the period of February 25, 1980.

If you have any questions or problems, please contact this office.

Sincerely,

Murray I. Smith  
Chief, Division of Inspection & Enforcement

REGION V ON SITE INSPECTION REPORT

SOUTHERN/UTAH FUEL COMPANY  
CONVULSION CANYON MINE  
P.O. Box P  
Salina, Utah 84654

DATE: February 25, 1980  
TIME: 9 a.m.  
WEATHER: Cold and snowing  
COUNTY & STATE: Sevier County, Utah  
COMPANY OFFICIALS: Kerry Frame and John Ashurst  
STATE OFFICIAL: Joe Helfrich  
OSM OFFICIAL: Gary Fritz  
STATE PERMIT NO: ACT/041/002  
MSHA I.D. NUMBER: 42-00089  
TYPE OF INSPECTION: Bi-annual

GENERAL COMMENTS

Violation Numbers 3 and 4 of Notice of Violation #79-5-5-2 are still outstanding because the company's proposal for abatement has not been approved. The company was required to send the sediment pond construction plan for approval by the regulatory authority.

The State of Utah's Division of Oil, Gas, & Mining, the U.S. Forest Service, and the State Health Department have approved the plans. OSM has not because the sediment control plan was included in an amendment for additional acres to mine; therefore, extensive study and research is required prior to granting of approval for the site.

An inspector from the Division of Oil, Gas, & Mining made a full inspection of the mining facility the week prior to my inspection and notified me of his concern with the unacceptable quality of the mine water discharge. Mr. Frame was questioned about the problem by the State inspector as well myself. He said they had had a couple of water related problems at the mine that caused the excess effluent discharge. Their concrete sediment trap filtering system is constantly being blocked. The trap is designed to control and treat runoff from the main yard area. It has an initial pooling stage area that allows the heavier sediments to settle. The water then flows through a series of baffles, which removes oil and floating debris.

The last stage of treatment in this sediment trap involves a set of filters that restricts suspended solids above five microns in size from being discharged. According to Mr. Frame, these filters also filter out some of the oil that gets past the baffles. The frequency of maintenance has been an increasing problem. According to Mr. Frame, the company decided to drain the filter trap to work on it, so the maintenance frequency could be reduced. They have a bypass valve that is used to drain the system by aborting the last filtering stage. Consequently, by opening the bypass, they added an abnormal amount of sediment in the water leaving the mine permit area.

SOUTHERN UTAH FUELS CO/CONVULSION CANYON MINE

After reviewing the problem and plausible solutions, the company decided to increase the mesh size of the filters in the sediment trap from five microns to 50 or 100 microns, to reduce the frequency of maintenance. According to Mr. Frame, the discharge from this system will not exceed the limits outlined in their discharge permit, even though the filter system limits have been increased.

The second problem related to the excess sediment load was caused when the company pumped down a large underground sump. An oil skimmer system in the sump was not operating properly. Since it continued to malfunction they decided to lower the water in the sump to build a better system. The water in the sump system is normally held so suspended solids will settle out to acceptable levels.

The two related problems when combined resulted in a discharge of water from the mine that had suspended solids above the accepted limits of the company's discharge permit. They reported this violation to the State Environmental Protection Agency (EPA) in writing on November 12, 1979. They also indicated they would make changes to prevent the excess effluent discharge from happening again.

COMPLIANCE WITH INTERIM REGULATIONS

717.11 Copies of Applicable Permits

A copy of the September 14, 1977 letter from Ron Daniels that notified the company they could commence mining, was available for review. The company also had their mine water discharge permit for East Spring Canyon (UT-0022918) available. It expires June 29, 1980.

There was some question about the number of discharge points authorized by the permit. After reviewing the permit, I came to the conclusion that the company had the right to discharge mine water and water from the concrete sediment trap, which in the latter case, is identified as an ancillary discharge point.

The company has another discharge point that is not permitted. There is a sump below the exhaust fan on the upper pad. Occasionally they have to drain it to prevent flooding. Water from condensation and seepage from the hillside will fill a sump in the fan building, so it has to be pumped to keep from drowning out the fan. They were not discharging from this point on the day of my inspection; otherwise, it would have been a violation of the interim regulations. Water from this sump should be treated prior to discharge from the affected area.

Kerry Frame was unfamiliar with the EPA discharge permit or the points covered. After discussing it, he said that the permit would be reviewed and an application would be made for any unpermitted points that were not included on the current permit.

717.12 Signs and Markers

The sign identifying the mining operation was posted and contained all of the necessary data. A new sign was also noted on the road coming up Spring Canyon, which is seasonally used by ranchers to herd livestock in and out of the high country behind the mine.

717.14 Backfilling and Grading

No additional backfilling or grading has been done since the last inspection.

A temporary tipple area was roughed out prior to my last inspection but no additional work has been done on it. The company still plans to complete it, but at the present time they are trying to increase the capacity of the crushing facility so they can reduce the size of area needed for the tipple. Studies are being conducted to check the stress capacity of the main structures, before the company decides to change the size of the crusher or the proposed tipple area.

717.15 Disposal of Spoil and Waste

Mine waste is still being stored in the mine, however, the company is considering hauling some of it out to a public dump. According to Mr. Frame, the dumping site has not been approved by the county, so they are continuing their old practice of keeping waste in the mine.

Waste from the concrete sediment trap is being stored on the surface, also until the company has an opportunity to dispose of it along with underground development rock and waste.

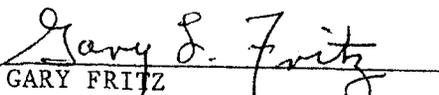
717.17 Water Quality and Effluent Standards

I reviewed copies of the company's surface water monitoring samples. The sampling points are distributed both above and below the mine and in adjoining drainages.

Groundwater monitoring is in the development stages of being standardized. Mr. Frame said he was going to Salt Lake City on the following Monday to review the preliminary monitoring proposals and results by Hydrometrics, a firm located in Helena, Montana. Mr. Frame also stated that the proposal was going to be presented to the company's parent firm in Salt Lake City. Several drill holes are being utilized at this time for the groundwater monitoring until a new program is implemented.

717.20 Topsoiling and Revegetation

Permanent cover was planted on the outcrops of some of the disturbed areas in June. If this did not take, attempts should be made to establish growth on the outcrops this spring. Success of revegetation should be checked on the next inspection.

  
GARY FRITZ  
RECLAMATION SPECIALIST