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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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Dee C. Hansen, Executive Director
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May 31, 1985

CERTIFIED RETURN RECEIPT REQUESTED
(P402 457 170)

Mr. Glen Zumwalt
Vice President
Utah Fuel Company
P. O. Box 719
Helper, Utah 84526

Dear Mr. Glen Zumwalt:

RE: Notice of Violation #2 of 3, N84-2-24-3, Abatement Plans and Minor Amendment to MRP (Mine Water Discharge into Sediment Pond), Skyline Mine, ACT/007/005, #3 and #7, Carbon County, Utah

The Division of Oil, Gas and Mining (DOGM) has reviewed Utah Fuel Company's April 12, 1985 response addressing NOV #2 of 3, N84-2-24-3, and deficiencies listed in the DOGM review letter dated April 9, 1985. Based upon the information submitted on January 11, 1985 and April 12, 1985, and the NPDES discharge reports available from the State Health Department, the Division is prepared to grant approval of the current mine discharge operation for termination of the notice of violation referenced above. The company has provided information which demonstrates that the mine discharge that is currently pumped into the pond is adequately treated under the current operating conditions based upon NPDES monitoring requirements. However, the company has not adequately satisfied the request for additional information associated with the proposed minor amendment to update the Mining and Reclamation Plan (MRP) which is required by UMC 788.12(a)(1) due to the increase in mine water from that originally approved in the MRP. This information is also necessary to address the continued use of the pond under current operating practices should the pond receive increased discharges of mine water above the maximum average volume of 230,507 gpd reported to date.

The following comments and informational requirements must be addressed before the Division can consider acceptance of the amendment to the MRP:

Insufficient information was provided regarding the quality and quantity of the mine water and sediment pond discharges to accurately identify historical trends and in order to estimate future projections of mine water production. This information is necessary to demonstrate that the treatment efficiency of the sediment pond will be maintained over time should mine water production increase.

The method used to determine average flow for mine water discharge does not give an accurate indication of maximum flow events for mine water discharge on a daily basis. The sizing of detention storage for mine water must not be based on average values, but maximum (worst case) values projected over a treatment period of time.

Utah Fuel Company has not offered any indication of where mine water is being produced (reference to Item 1, Part C, DOGM letter dated April 9, 1985, i.e., potential for crossing major water producing faults, dikes, perched aquifers, etc.). The decreasing trend, as shown in Figure 1 of the April 12, 1985 submittal, does not accurately predict maximum flow or characterize anticipated discharges from the mine.

If Utah Fuel Company elects to continue to utilize the sediment pond in an unmodified state to treat mine water discharges under the current operating conditions and volumetric constraints (i.e., full capacity, first water in - first water out), the following proposed by the Division in order for Utah Fuel Company to obtain final approval:

1. Utah Fuel Company must initiate an indepth testing period and maintain daily flow meter records of mine water discharge for a one year period. This will determine if maximum flows occur which are not reflected in the averaged daily flow records generated to date from monthly totals. Maximum daily flow values are necessary to determine if the design of the sediment pond is adequate.

Monitor total suspended solids (TSS) readings for each scenario of sediment pond discharge via overflow conditions (as described below), for the same one year period (referenced above), to determine if trends occur under different discharge conditions. Using the information provided to date by Utah Fuel Company, DOGM has calculated the number of samples required to adequately describe the population parameters for effluent values. This program will consist of the operator taking two dual samples (i.e., total of four samples) per week for one year. The dual samples will consist of one sample taken 20 minutes after pond discharge begins and 20 minutes before pond discharge ends. Under this program, sampling of the various discharge scenarios will document and confirm the operating efficiency of the sediment pond. The following discharge scenarios must be sampled and noted on sample reports:

Sediment pond discharges due to:

A. mine water;

B. mine water plus runoff from snowmelt;

C. mine water plus runoff from rainfall.

In addition to taking these dual samples twice a week, the operator must provide information regarding the flow rates entering and leaving the pond (from mine water and runoff) as well as detention times for these waters for each sample obtained during the year. The time of day that mine water is discharged into the pond will be a significant variable that will affect pond effluent quality. The operator must document the interaction between pond effluent quality and time of day. This information must be summarized and submitted quarterly as outlined below.

The requested information and all sampling data must be submitted to DOGM quarterly. An accurate determination, regarding treatment methodology, can be made at the end of the year based upon the requested sampling and information.

2. A detailed calculation of theoretical effluent limitations under all potential inflow scenarios (worst case situations) for design storm runoff, equivalent snowmelt and mine water discharge to the pond.

   These calculations would require the following baseline information for input into a computer program which will generate the theoretical effluent levels which would be expected under said conditions:

   A. inflow hydrographs for surface runoff, mine water discharge and snowmelt runoff;

   B. stage-capacity and stage-discharge relationships for the sediment pond;

   C. particle size distribution of an undispersed soil sample for those areas which will contribute sediment to the pond.

If the Company wishes to propose an alternate plan to address the continued use of the existing pond under the current operating conditions, that plan will receive due consideration by the Division.

Utah Fuel Company must provide a written response to the deficiencies identified above within two weeks of receipt of this letter.

If you have any questions regarding the above, please do not hesitate to contact me for assistance.

Thank you for your cooperation in resolving these remaining concerns.

Sincerely,

Lowell P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

REVIEW CHRONOLOGY:

A. Operator Submissions
1. 1/11/85
2. 3/13/85
3. 4/19/85

B. DOGM Responses
1. 2/26/85
2. 3/22/85
3. 5/31/85

TM/btb
cc: Steve McNeal
Allen Klein
Donna Griffin
Ron Daniels
Wayne Hedberg
Joe Helfrich
Tom Munson
Sandy Pruitt
Rick Summers
Tom Suchoski
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