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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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Salt Lake City, Utah 84180-1203
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March 30, 1989

(THIS LETTER WAS SENT TO THE FOLLOWING ATTACHED LIST)

Re: Revised Spring Monitoring Parameter List, U.S. Fuel Company,
Hiawatha Complex, ACT/007/011-89B, Folder #2, Carbon County, Utah

Enclosed are two (2) copies of U.S. Fuel Company's final approved plans for the referenced MRP Amendment, for the Hiawatha Complex Mines in Carbon County, Utah. This material should be used to update your file copy of the approved Mining and Reclamation Plan (MRP) for this mine.

The Division approved this permit change on March 28, 1989. If you have any questions please contact Lynn Kunzler, Reclamation Biologist or me.

Sincerely,

SC

Susan C. Linner
Reclamation Biologist/
Permit Supervisor

cl
Attachments
cc: L. Kunzler
J. Helfrich
BT53/33

Mr. Peter A. Rutledge, Chief
Division of Federal Programs
Western Field Operations
Office of Surface Mining
Brooks Towers, 1020 15th Street
Denver, Colorado 80202 Dear Mr. Rutledge:

Mr. Robert Hagen, Director
Office of Surface Mining, AFO
Reclamation and Enforcement
Suite 310, Silver Square
625 Silver Avenue, S. W.
Albuquerque, New Mexico 87102 Dear Mr. Hagen:

Mr. Mark E. Bailey
Resource Area Manager
Bureau of Land Management
Price River Resource Area Office
P. O. Box AB
Price, Utah 84501 Dear Mr. Bailey:

Mr. Randy Heuscher, Chief
Branch of Mining & Solid Minerals
Bureau of Land Management
Utah State Office
324 South State, Suite 301
Salt Lake City, Utah 87111-2303 Dear Mr. Heuscher:

Mr. Kenneth Alkema
Department of Health
Division of Environmental Health
P. O. Box 2500
Salt Lake City, Utah 84101 Dear Mr. Alkema:

Mr. Clark Johnson, Field Supervisor
U.S. Fish & Wildlife Service
Ecological Services
2060 Administration Bldg.
1745 West 1700 South
Salt Lake City, Utah 84104-5110 Dear Mr. Johnson:

Mr. Daron Haddock
Utah Division of Oil, Gas and Mining
451 East 400 North
Price, Utah 84501-2699 Dear Mr. Haddock:

Mr. George Morris, Forest Supervisor
U.S. Forest Service
Manti-LaSal National Forest
599 West Price River Road
Price, Utah 84501 Dear Mr. Morris:

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UMC 817.52 Groundwater Monitoring

U.S. Fuel Company currently monitors springs included in the monitoring program twice each year (normally in July and October, depending on accessibility). Data collected during each visit includes; flow, pH, water temperature, and specific conductance. Prior to 1986, spring samples were analyzed according to Table VII-5a. In order to bring the monitoring program into line with the Division's "Guidelines for Establishment of Surface and Ground Water Monitoring Programs", samples are now analyzed according to the Table VII-5b spring water quality parameter list.

Collection of samples during July and October of each year corresponds to high- and low-flow periods. The area is largely inaccessible during those months of the year before July and after October. Hence, the frequency of sampling (twice each year during high- and low-flow periods) complies with the letter and intent of both the regulations and the "Guidelines for Establishment of Surface and Groundwater Monitoring Programs" prepared by the Utah Division of Oil, Gas and Mining. Monitoring data is submitted to the regulatory authority on a quarterly basis.

Flow measurements will be made with V-notch weirs or by time volume on open springs and by the time-volume method where springs discharge from installed pipes. Water samples are analyzed according to Table VII-5a. Refer to Chapter VII-7.2 pages 6-9 for more information on the surface water monitoring plan.

The map included with this plan (Exhibit VII-1) shows the location of 14 numbered springs which U.S. Fuel has monitoring data for. Several of these locations have been deleted due to changes in the Mine Plan or changes made by OSM and are noted as discontinued on the map. Most of these springs were selected because of their location with respect to the mine workings and because they each had some flow during the drought year of 1977. Several others were selected to reflect a geologic variability of spring sources.

During the period between 1977 and 1984 U.S. Fuel monitored springs SP1-10. In 1984 based on a request from OSM to monitor "a representative number of springs that... reflect variability of springs issuing from the geologic source and local groundwater systems that may be affected by the King Mines." U.S. Fuel added SP 11, 12, 13 and 14. Each of these, with the exception of SP 14 issues from the Castle Gate sandstone, was within a zone of potential subsidence and shows signs of wildlife use.

TABLE VII-5b
SPRING WATER QUALITY PARAMETER LIST

Field Measurements:

Flow
pH
Specific Conductivity
Temperature

Laboratory Analyses:

Total Dissolved Solids
Total Hardness (CaCO₃)
Carbonate
Bicarbonate
Calcium
Chloride
Iron (Diss.)
Magnesium
Manganese
Potassium
Sodium
Sulfate