

Jim Smith

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United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

JUN 29 1984

DIVISION OF OIL
GAS & MINING

cc: Sue
Jim S.

JUN 27 1984

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A-1007/011
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JIM

JUL 06 1984

Dr. Dianne Nielson, Director
Division of Oil, Gas, and Mining
4241 State Office Building
Salt Lake City, Utah 84114

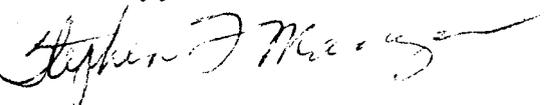
Dear Dr. Nielson:

Enclosed is the U.S. Fuel Company's "Plan of Action for Evaluation of Underground Reservoir," submitted to the Office of Surface Mining (OSM) on June 15, 1984. As stated in our June 5, 1984, letter to Mr. Errol Gardiner (forwarded to the Division on June 6, 1984), the existing underground water supply system is not in compliance with UMC 817.49 Hydrologic Balance: Permanent and Temporary Impoundments, UMC 817.50 Hydrologic Balance: Underground Mine Entry and Access Discharges, and UMC 817.55 Hydrologic Balance: Discharge of Water Into An Underground Mine. The applicant's evaluation plan is in response to concerns raised by OSM and the Mine Safety Health Administration (MSHA) concerning the stability and safety aspects of the water supply system.

U.S. Fuel's anticipated date for submittal of the stability analysis is September 21, 1984. OSM's scheduled date for completion of the permit decision document is September 7, 1984; therefore, evaluation of the data and a decision on the water system will not occur until after the current review process is completed. OSM will exclude approval of the water system from the pending permit decision and stipulate that the required information be submitted and approved by the regulatory authority and the Mine Safety and Health Administration (MSHA). A final decision on the retention of components of the water supply system (i.e. bulkheads, diversion, storage devices, etc.) will not be made until the stability issues are resolved and the requirements of UMC 817.133 Postmining Land Use are met.

It is recommended that since these issues will involve long-term consultation between OSM, U.S. Fuel, MSHA, and the Division, that your staff review and provide any necessary comments on the enclosed plan. If the Division has any comments, they should be relayed to OSM by July 9, 1984.

If you have any questions, please feel free to call me at (303) 844-3806.

Sincerely,

Stephen F. Manger
Utah Task Force Leader

orig file
cc Jim Smith
D. Daniels
D. Nielson

U. S. FUEL COMPANY
Hiawatha Mine Complex
Hiawatha, Utah

PLAN OF ACTION FOR EVALUATION OF
UNDERGROUND RESERVOIR

Submitted to the Office Surface Mining

June 15, 1984

PLAN OF ACTION FOR EVALUATION OF
UNDERGROUND RESERVOIR FOR U. S. FUELS
HIAWATHA NO. 2 MINE

U. S. Fuels presents herein, a plan of action to address The Office of Surface Mining (OSM) and The Mine Safety and Health Administration's (MSHA) concerns regarding the underground reservoir in the Hiawatha No. 2 Mine. The three major concerns addressed in this plan are:

1. To obtain data to confirm the stability of bulkhead structures.
2. Based on the collected data, to calculate maximum allowable hydrostatic head for the mine entries.
3. To present an operating plan detailing the reservoirs operation and bulkhead monitoring.

On June 8, 1984, U. S. Fuel Company and their consultants met with representatives in Denver. This meeting was suggested in the letter to U. S. Fuels, to allow discussions of stipulations and to allow a free exchange of ideas on how best to address the concerns raised by use of the underground reservoir. As a result of the June 8 meeting, it was decided by all parties that point 3 of OSM's stipulation letter requiring collection of necessary geohydrologic information, regarding inflow and outflow quantities through the reservoir, be dropped and that U. S. Fuel Company provide a description of reservoir operation and bulkhead monitoring in its place. It was also agreed by all parties present that the ultimate capacity of the reservoir would be

determined from the analysis of the bulkhead seals but shall not exceed approximately 24,000,000 gallons of water. Until the data for analysis is collected and evaluated, U. S. Fuel agrees that the reservoir capacity shall not exceed 15,000,000 gallons.

Bulkhead Evaluation

To allow evaluation of the fourth or east most bulkhead, the mine must be dewatered below the level of that bulkhead. Based on pressure readings taken at the beginning of June (approximately 10.7 psi), approximately 34,000,000 gallons of water are stored in the reservoir (see Exhibit III-18). The fourth seal is located in the mine just above the 22,000,000 to 23,000,000 storage volume level. This corresponds to a pressure reading of approximately 8.5 psi. To dewater the mine to the fourth seal would require a reduction in water volume of approximately 11,000,000 to 12,000,000 gallons of water.

Discussions with the mine foreman have indicated that the mine workings under Gentry Mountain over towards Mohrland can safely handle an additional discharge of approximately 200 gpm. While this system can probably pass more water, it cannot do so safely. At a rate of 200 gpm, the dewatering reduction of 11,000,000 to 12,000,000 gallons will take between 38 to 42 days.

U. S. Fuel will start the dewatering as soon as the mine workings can be set up to handle the additional flow. This should take approximately one to two weeks. Once the water level has been reduced to a level below the fourth seal, there will still be water in the entry behind the bulkhead. This can be

seen in Exhibit III-18. This entry will be drained by drilling a series of two to four inch diameter holes through the bulkhead, starting at the top and staggering across and down the bulkhead. Between drilling each hole, the water back up behind the bulkhead will be allowed to drain. This will allow safe drilling, as large volumes of pressure will not exist at the lower drill holes. This operation is expected to take approximately three to four days.

Following dewatering of the portal entry, a minimum of the three representative sections of the bulkhead wall will be collected for samples. These samples will be taken in accordance with the testing laboratory's directions to allow adequate material testing.

Following sampling, removal of the fourth seal will proceed. While this is underway, the condition of block and mortar will be recorded. Also, construction detail will be recorded. Information gathered will include the type and size of block, reinforcing used (if any), interior construction, block orientation, and mortar thickness and uniformity. Following removal of the blocks from the seal, efforts will be made to obtain representative core samples of native rock from within the mine entry. The core samples will be taken of top rock, bottom rock and the coal, as well as the concrete keys of the bulkhead seal set into sides, and top and bottom of the entry. Once samples of the block wall and samples of the native rock and concrete keys have been obtained, these samples will be sent to the lab for analysis. The information needed for evaluation of

the seal include compression, shear, condition, and competency of the block and native rock. Following engineering analysis of the samples, the data will be evaluated by Ford, Bacon & Davis to determine life of mine and long-term stability of the remaining bulkhead seals and to determine allowable head for each seal. This evaluation will assume the data from the fourth seal is applicable to the three remaining seals.

The process of removing the fourth seal, sampling the bulkhead material and evaluating the stability of the bulkhead should take approximately three to four weeks.

Reduction of Reservoir Capacity

Based on the results of the bulkhead evaluation, U. S. Fuel Company will review the storage volume required for continued mine operation. This information will be used to set a maximum "not to exceed" storage limit for the reservoir - which limit will not exceed 24,000,000 gallons. The fourth seal bulkhead once removed, will not be replaced and the entry will be chained or fenced to prevent access.

The method of maintaining a storage limit will depend on what that limit is. The methods that are being considered will probably consist of the following:

1. Maintain regular pressure reading at the main entryway bulkhead (use both the existing pressure gauges to ensure accuracy of reading).
2. Provide overflow using the fourth portal entry which was opened as a result of data collection and has been fenced to prevent access.

Operation Plan

U. S. Fuel Company commits to providing a description of the reservoir operations methods. This will consist of a description of inflow and outflow activity and pressure monitoring. The information provided for each will entail: who monitors and controls inflow and outflow; who is responsible to see that monitoring or inflow and outflow changes are made; when are the changes and monitoring to be undertaken; and how are those activities performed.

U. S. Fuel Company also commits to describing the inspection system for the bulkheads. This description will also include who is responsible to see inspections are undertaken, who inspects the bulkheads, when do those inspections take place and on what periodic basis, and how will the inspection be conducted.

Report Preparation

Following completion of the analysis and sampling of the bulkheads, and evaluations of the analysis results, which will take the longest period of time, a report will be prepared and submitted to OSM. This report will be submitted by September 21, 1984. To justify this date, U. S. Fuels submits the following schedule:

1. Dewatering will be started approximately the last week of June.
2. Allowing for the dewatering period. Dewatering will be approximately the first full week of August.
3. Allowing two to three weeks for sampling and analysis, this task will be completed the end of August.

4. Evaluation of analysis results and report preparation will take approximately two to three weeks, providing a mid-September completion date.

The report prepared for OSM will include description of bulkhead stability for life of mine and extended life, description of reservoir storage reduction methods, and a description of the operating plan for reservoir.

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JUN 29 1984

DIVISION OF OIL
GAS & MINING

June 27, 1984

James W. Smith, Jr.
Coordinator of Mined
Land Development
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

Attn: Susan C. Linner

RE: Revision to the Mining and Reclamation Plan, U.S. Fuel
Company, Hiawatha Complex, ACT/007/011, Folder No. 2,
Carbon County, Utah

In Reply Refer To Case No. E409

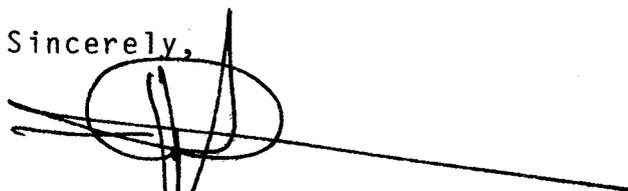
Dear Mr. Smith:

The Utah Preservation Office has received for consideration
your letter of June 22, 1984, transmitting the revision to
mining and reclamation plan for the Hiawatha Complex to our
office for review.

After consideration of the material, our office notes no
material on cultural resources. Therefore, our office has no
comment concerning this revision.

Since no formal consultation request concerning eligibility,
effect or mitigation as outlined by 36 CFR 800, 60 or 63, or
other pertinent regulations or guidelines, was indicated by you,
this letter represents a response for information concerning
location of cultural resources, and does not indicate a request
for further data gathering. If you have any questions or
concerns, please contact me at 533-7039.

Sincerely,



James L. Dykman
Cultural Resource Advisor

JLD:jrc:E409/0570V



SCOTT M. MATHESON
GOVERNOR

DC
ED

STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101-1182
TELEPHONE 801/533-5755

JIM

JUN 29 1984

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United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

RECEIVED

JUN 27 1984

DIVISION OF OIL
GAS & MINING

JUN 25 1984

File
ACT/007/011
Folder 2

*Original file
cc'd to
J. W. Smith
cc'd to
J. W. Smith*

JIM

JUL 06 1984

Mr. Robert Eccli
Senior Mining Engineer
U.S. Fuel Company
Hiawatha, Utah 84527

Dear Mr. Eccli:

This letter is in response to your June 11, 1984, letter concerning the retention of roads and the underground water supply system as postmining land use features at the Hiawatha Mines Complex. As stated in our May 30, 1984 letter to U.S. Fuel, it is necessary at this time to develop a bond amount which assumes that the roads and water system will be reclaimed. The primary reasons for this approach are: 1) the permit review schedule, and 2) the requirements of UMC 817.133 Postmining Land Use have not been met by the applicant.

On June 15, 1984, U.S. Fuel submitted a plan to evaluate the short and long-term stability of the existing water supply system, namely the bulkheads contained in the Hiawatha No. 2 mine. U.S. Fuel's anticipated date for submittal of the stability analysis is September 21, 1984. The Office of Surface Mining (OSM) scheduled date for completion of the permit decision document is September 7, 1984; therefore, evaluation of the data and a decision on the water system will not occur until after the current review process is completed. OSM will exclude approval of the water system from the pending permit decision and stipulate that the required information be submitted and approved by the regulatory authority and the Mine Safety and Health Administration (MSHA). A final decision on the retention of components of the water supply system (i.e. bulkheads, diversion, storage devices, etc.) will not be made until the stability issues are resolved and the requirements of UMC 817.133 are met.

Our May 30, 1984, letter stated that in order for the regulatory authority to approve an alternative postmining land use, the requirements of UMC 817.133(c)(1) through (6) must be met by the applicant. These UMC requirements are enclosed for your review. The applicant must develop a plan which addresses, among other things, the compatibility, feasibility and maintenance of the proposed postmining land use structures. The existing permit application package fails to demonstrate: 1) the long term stability of the water supply system, 2) the feasibility of the town of Hiawatha to physically and financially maintain the water system and access roads (see enclosed draft analysis), and 3) the compatibility of the postmining land use with land use trends and policies.

Based upon the result of the stability analysis of the existing water supply system, a decision will be made on the postmining retention of the system. An alternative to utilizing the existing water system, as suggested in your June 11, 1984, letter, may be approved after issuance of the permit decision if proper plans are submitted as a revision to permit application in accordance with the Utah State Program. Until such time that these requirements are met, it is necessary to determine a bond amount based upon reclamation of the roads and water supply system.

After a permit decision is issued, the Division of Oil, Gas, and Mining (DOGM) will be responsible for monitoring stipulations and reviewing revisions to the permit. It is suggested, therefore, that a meeting be held in Salt Lake City with representatives of DOGM, OSM and U.S. Fuel to discuss and clarify what is required to approve an alternative postmining land use plan in order to make adjustments to the bond amount.

If you have any questions, please contact Sarah Bransom or Steve Manger at (303) 844-3806.

Sincerely,



for Allen D. Klein
Administrator
Western Technical Center

cc: Dr. Dianne Nielson, UDOGM ✓
Susan Linner, UDOGM
Jack Elder, FBD
Mike Bishop, ES

strata which have been in the permit area prior to cessation or abandonment, the extent and kind of reclamation of surface area which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, underground opening closures and water treatment activities that will continue during the temporary cessation.

UMC 817.132 Cessation Of Operations: Permanent

(a) The person who conducts underground coal mining activities shall close or backfill or otherwise permanently reclaim all affected areas, in accordance with this Chapter and according to the permit approved by the Division.

(b) All surface equipment, structures, or other facilities not required for continued underground coal mining activities and monitoring, unless approved as suitable for the postmining land use or environmental monitoring, shall be removed and the affected lands reclaimed.

UMC 817.133 Postmining Land Use

(a) General. Surface land areas affected by mining activities shall be restored in a timely manner-

(1) To conditions that are capable of supporting the uses which they were capable of supporting before any mining; or

(2) To higher or better uses achievable under criteria and procedures of this Section.

(b) Determining pre-mining use of land. The pre-mining uses of land to which the postmining land use is compared shall be those uses which the land previously supported, if the land has not been previously mined and had been properly managed.

* (1) The postmining land use for land that has been previously mined and not reclaimed shall be judged on the basis of the highest and best use that can be achieved and is compatible with surrounding areas.

(2) The postmining land use for land that has received improper management shall be judged on the basis of the pre-mining use of surrounding lands that have received proper management.

(3) If the premining use of the land was changed within 5 years of the beginning of mining, the comparison of postmining use to premining use shall include a comparison with the historic use of the land as well as its use immediately preceding mining.

(c) Prior to the release of lands from the permit area in accordance with UMC 80.12(c) the permit area shall be restored, in a timely manner, either to conditions capable of supporting the uses they were capable of supporting before any mining or to conditions capable of supporting approved alternative land uses. Alternative land uses may be approved by the Division after consultation with the landowner or the land-management agency having jurisdiction over the lands, if the following criteria are met:

(1) The proposed postmining land use is compatible with adjacent land use and, where applicable, with existing local, State, or Federal land use policies and plans: A written statement of views of the authorities with statutory responsibilities for land use policies and plans shall have been submitted to the Division within 60 days of notice by the Division before underground mining activities begin. Any required approval of local State, or Federal land management agencies, including any necessary zoning or other changes required for the land use, shall have been obtained and shall remain valid throughout the underground mining activities.

(2) Specific plans shall be prepared and submitted to the Division which show the feasibility of the postmining land use as related to projected land use trends and markets and that include a schedule showing how the proposed use will be developed and achieved within a reasonable time after mining and be sustained. The Division may require appropriate demonstrations to show that the planned procedures are feasible, reasonable, and integrated with mining and reclamation, and that the plans will result in successful reclamation.

(3) Provisions of any necessary public facilities shall be ensured as evidenced by letters of commitment from parties other than the person who conducts underground coal mining activities, as appropriate, to provide them in a manner compatible with the plans submitted under UMC 784.15. The letters shall be submitted to the Division before underground coal mining activities begin.

* (4) Specific and feasible plans are submitted to the Division which show that financing and attainment and maintenance of the postmining land use are feasible and, if appropriate, are supported by letters of commitment from parties other than the person who conducts the underground coal mining activities.

(5) Plans for the postmining land use shall have been designed under the general supervision of a registered professional engineer, or other appropriate professional, who will ensure that the plans conform to applicable accepted standards for adequate land stability, drainage, vegetative cover, and aesthetic design appropriate for the postmining use of the site.

(6) The proposed use or uses will neither present actual or probable hazard to public health or safety nor will they pose any actual or probable threat of water flow diminution or pollution.

DRAFT

The Outlook for the Town of Hiawatha Through the Year 2014 and Beyond

The objective of this analysis is to provide a professional judgement on the likelihood of continued population growth in the town of Hiawatha through the year 2014, when the U.S. Fuel Company's Hiawatha Mines Complex ceases operation, and beyond.

The incorporated town of Hiawatha had a 1980 population of 249. This was 83 persons higher than in 1970, but well below the 1950 population of 1,421. According to Hiawatha's Postmaster and the town's Mayor, the population increased to about 350 in the early 1980's, but had declined to approximately 200 in the last year following layoffs at the mine. A local planning official also speculated that some of the population decline was attributed to the improved housing market (price and availability) in Price. Although approximately 20 miles distant from the mine, Price is an attractive residency choice due to its role as the largest city and commercial trade and services center in southeastern Utah. The Postmaster estimated that 8-10 of the 70 homes and 10 mobile home spaces in Hiawatha are currently vacant.

The town is one of the last examples of what was once the prevailing type of municipality in Carbon County, the "company town". All land, buildings, and the water and sewer systems are owned by the U.S. Fuel Company. Many of the town's residents are employed at the Hiawatha Mine Complex. In fact, one or more members of a household must be employed by the company in order to occupy a company dwelling. The residents rent their homes from the company. Monthly rental rates range from \$37.00 to \$55.00. The company also provides water sewer services at no cost to the tenant. The tenants are responsible for the costs of electricity, telephone and heating fuel. Maintenance on the homes and other buildings, as well as the water and sewer systems, is performed by the company, at no cost to the occupants. Funding for law enforcement and street lighting are provided from the town's budget (since U.S. Fuel is the primary property taxpayer in the town, it indirectly pays for these functions too.) Fire protection and ambulance service are provided on a volunteer basis. The town is currently comprised of 70 homes, ten mobile home spaces and several commercial and public buildings. U.S. Fuel Company has indicated that there are no plans to undertake any new or additional residential construction in Hiawatha. (Apparent Completeness Review response, July 1983) It is assumed that the company's position likewise limits such development by a third-party.

The town has a current annual operating budget of about \$35,000.00. Approximately 80 percent of the budget is provided by property taxes on its \$1.8 million dollar assessed valuation. State assessments on the Hiawatha Mine Complex account for nearly 90 percent of the town's total assessed valuation. The second largest contribution to the budget is sales tax collection. Hiawatha's share of the local receipts, both county and municipal, is based on its share of Carbon County population. Other revenue sources include liquor taxes and state road improvement funds.

The economic viability of the community, both in terms of personal income, tax base and actual provision of services is thus extremely dependent upon the operation of the Hiawatha Mine Complex.

The issue currently under consideration is the likelihood of significant population growth occurring in Hiawatha through the year 2014 and beyond. There is obviously no single, objective answer. Rather, a subjective judgement can be reached based on professional opinion and reasonable assumptions and expectation. Several of the major factors considered in the analysis are discussed below.

The most significant factors affecting the analysis are: 1) the ownership of land and buildings by the company, 2) past and current trends and policies which have limited additional residential development, and 3) the company's eventual decision on divestiture of the property. These factors are the overriding issues for several reasons.

-In order to plan for the eventual closure of the mining complex, the company may choose to divest itself of the property by selling land and homes to its employees or the public and dedicating certain property to the town. Another alternative would be a decision by the company to remove all buildings when operations cease and return the land to its premining land use, i.e. wildlife habitat and grazing.

-As long as no additional housing is developed, local population is limited to a maximum of about 350 persons. The small population base indirectly limits expansion of the limited commercial base in Hiawatha. Note: The maximum population of 350 persons is based on currently available housing and mobile home spaces. According to local officials, numerous dwellings have been destroyed since the town's population was at 1,400 persons in 1950.

-Typically, fewer residential improvements and/or additions are undertaken by tenants than by owner-occupants. Thus, the overall quality of the housing stock will most likely remain stable or experience some deterioration over time.

-Even if the company does divest itself of the community, the tax base of the community will significantly diminish when operations of the mine cease.

-Given that many of the town's residents are employed at the mine and that the most of these employment opportunities will be lost when production ceases, it is possible that many households may leave Hiawatha in pursuit employment elsewhere and/or to relocate closer to new jobs.

-The company currently subsidizes the local water and sewer systems. As the major taxpayer, the company also provides most of the town's operating budget for law enforcement and lighting. Once operations cease, higher operations and maintenance burdens would have to be assumed by local households.

-There may be legal and residual liability considerations for the company to take into account in the decision to divest itself of the community, or to abandon it. These factors, if any, are beyond the scope of this analysis.

Telephone conversations were held with several local and state officials to solicit their opinions about the prospects for Hiawatha. The consensus of their perspectives are summarized below.

The primary issue is the company's policies and decision towards development and divestiture. The implications of these policies are discussed above.

It was one official's opinion that the reason for Hiawatha's growth during the 1975-1982 period was the tight housing market in the entire region. Higher prices, lack of availability and selection all discouraged employees at Hiawatha from living elsewhere. This is especially true when the typical monthly rental costs for a company-owned unit is considered. However, housing prices have recently declined in the Price area and the availability has improved. Thus, some employees are thought to be moving out of the Hiawatha into the Price-Helper-Wellington area. This official also felt that people would rather own than rent, if they could afford it. Finally, he thought that residents who were retiring from the mines would choose to leave Hiawatha.

Furthermore, past and current trends/policies of limiting growth in Hiawatha and the economic link between the community's residents and the mine, will limit economic diversification of the economy and expansion of the tax base. This would severely limit the community's financial capability to survive following cessation of coal production.

A Carbon County official indicated that he felt that Hiawatha would gradually decline to a near ghost-town, similar to the town of Clear Creek, once the mine closes. Some residents would move away immediately to search for new work, while others, for example, families near retirement age who considered Hiawatha their home, would remain. Over time, these residents would die or leave. He also thought that Hiawatha is too remote and isolated to attract developer's interest or that many people would desire to live there, even if the company did decide to sell land and buildings to the public. This perspective was tempered, however, by today's housing market conditions. If Carbon County's growth rate accelerates, significant additions to the local housing stock will be needed. If these additions are not available (implying a tight housing market), the same set of conditions would be in existence as occurred in the past several years, generating the possibility that there would be a demand for any available housing, including that in Hiawatha.

A somewhat opposite opinion was expressed by Hiawatha's Mayor. He felt that retiring employees would prefer to move away from Hiawatha and that it was the younger employees who earn less, have fewer savings and fewer housing options that would stay and buy homes in Hiawatha, if given the option.

In general, the attitude of these officials were that while the town might survive at this current population level following the closing of the mine, it would more likely slowly diminish to a small, virtually abandoned community.

The quality of the local housing stock is another consideration in the viability of the community and the residency choices of the local households. In the publication "Southeastern Utah Housing Element - 1981 Update", the South East Utah Association of Local Government (SEUALG) reported 70 conventional dwelling units in Hiawatha. Of the total, 19% were rated as "acceptable" (with no visible structural or appearance problems), 64% were "deficient" (with two or more relatively minor problems) and 17% were deemed "deteriorating" (with three or more minor problems or some structural problems). Comparable Carbon County data were 64% acceptable, 26% deficient, 8% deteriorating and 2% dilapidated (major structural problems).

Over the next 30 years, it is unlikely that the quality of Hiawatha's housing stock will improve significantly. In fact, it is not unreasonable to anticipate a slowly diminishing housing stock as some units deteriorate to the point that the company decides that particular units are beyond repair and are removed from the housing stock.

The SEUALG conducted an attitude survey among residents in 1979-80. These results provide some insight as to how the residents perceive their community and living environment.

The survey consisted of approximately 110 questions in several major groupings. One group asked respondents to indicate their level of agreement/disagreement with a series of statements about the effectiveness of local governments and the attractiveness of their community. Another group of questions focused on potential problem areas in the community and respondent's ratings of those problems, i.e., from "one of the big problems" to "no problem". Respondents were then asked to rank (from excellent to poor) the quality and availability of various public and private services and programs. The next group of questions allowed respondents to rank/prioritize the spending of tax dollars for improvement in these service areas. Finally, a group of classification and background questions, e.g., age, were included.

Among respondents in Hiawatha, the consensus disagreed with the following statements: "The local government is making every effort to make this community attractive", "The local government is effective in making my community attractive", and "The overall appearance of my community is excellent".

When ranking the problem area, Hiawatha respondents cited inadequate medical care, high cost of living, lack of recreation opportunities/facilities and inadequate shopping opportunities. Hiawatha respondents did not rate any local services as excellent and only three were cited as good. The remaining services were all rated fair or poor.

Most of the results on attitudes towards government and problem areas are reasonably consistent with those reported for many of the other small communities in Carbon County although other communities tended to rate their services somewhat more favorably than did Hiawatha. Finally, all communities tended to list housing, health care, fire and police protection and sewer and water improvements as the top priorities.

These results tend to reflect a general level of dissatisfaction among Hiawatha (and Carbon County) residents in regards to the availability and quality of services. The difference in the case of Hiawatha is that its limited financial resources and lack of available land restrict its ability to respond to desires for improvements. Once the mine closes, the tax base will be even more limited, further diminishing the viability of the community.

In conclusion, the future prospects for Hiawatha through the year 2014 depend on the continued operation of the Hiawatha Mines Complex. This provides the local employment opportunities and income for residents. It is also dependent upon a decision by the company to maintain the community, divest itself of the holding and making the homes and land available for purchase or return the town to its premining land use (wildlife and grazing) after mining ceases. As the population decreases, the ability of the town to provide and maintain public services and facilities will diminish. Beyond 2014, the prospects will continue for the town's dependence on the company or some other means to support the local infrastructure. Even so, the town's remote location from other job opportunities, public and commercial services, would probably eventually result in population declines or abandonment. Thus, without a coordinated effort between the company and local officials to improve the economic viability of the town, it is doubtful that Hiawatha will grow significantly in the foreseeable future and its existence beyond 2014 is highly questionable.



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

June 22, 1984

Mr. Melvin T. Smith
State Historic Preservation Officer
Division of State History
307 West 200 South, Suite 100
Salt Lake City, Utah 84101

RE: Revision to the Mining
and Reclamation Plan
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Smith:

Enclosed please find one (1) copy of U. S. Fuel Company's revision to the Mining and Reclamation Plan. This review is forwarded for review by the Division of State History in accordance with our Memorandum of Understanding (MOU).

As you may recall, the MOU between our Divisions' calls for the following:

B. Mining Plan:

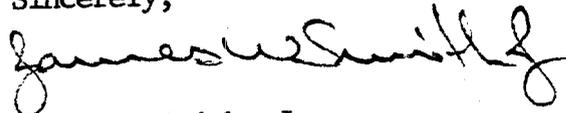
1. Upon submission of a coal mining and reclamation plan to the Division of Oil, Gas & Mining, the Division of Oil, Gas & Mining will notify the SHPO in writing of the need for consultation and evaluation of the plan with respect to historic and cultural resources. The Division of Oil, Gas & Mining will provide a copy of the relevant portion of the plan to the SHPO.
2. The SHPO will respond to the Division of Oil, Gas & Mining in writing within 30 days of receipt of the notification. The SHPO will include in such response an evaluation of the adequacy or inadequacy of the plan submitted by the operator to avoid, ameliorate or mitigate impacts of the proposed operation on historic and cultural resources.

Mr. Melvin T. Smith
ACT/007.011
June 22, 1984
Page Two

3. Where the proposed mining plan, will, in the judgment of the SHPO, adversely effect sites listed on, or potentially eligible for listing on the National Register of Historic Places, the SHPO shall proceed pursuant to 36 CFR 800. The SHPO will further assist the Division of Oil, Gas & Mining in its requirements set forth in MC 761.12(f) of the Coal Mining Regulations and make recommendations for survey and mitigation as appropriate.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan C. Limer of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/lk:jvb
Enclosure
00480



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

June 22, 1984

Mr. William H. Geer, Acting Director
Division of Wildlife Resources
1596 West North Temple
Salt Lake City, Utah 84116

RE: Revision to the Mining
and Reclamation Plan
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Geer:

Enclosed please find one (1) copy of U. S. Fuel Company's revision to the Mining and Reclamation Plan. This revision is forwarded for review by the Division of Wildlife Resources (DWR) in accordance with our Divisions' Memorandum of Understanding (MOU).

As you may recall, the MOU between our Divisions' calls for the following:

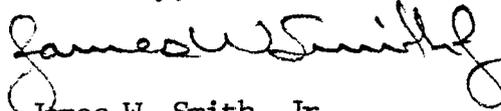
B. Mine Plan Review

1. Upon submission of a mining and reclamation plan to DOGM, the DOGM will notify the DWR in writing of the need for consultation in evaluation of the plan with respect to fish and wildlife resources as required by MC 786.17(a)(2). DOGM will provide a copy of such plan to DWR when available.
2. The DWR will respond to DOGM in writing within 60 days of receipt of the plan with an evaluation of the adequacy or inadequacy of the fish and wildlife plan submitted by the operator to avoid, ameliorate or mitigate impacts of the proposed operation on wildlife resources.

Mr. William H. Geer, Acting Director
ACT/007/011
June 22, 1984
Page Two

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan Linner of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/sl:jvb
Enclosure
00450



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

June 22, 1984

Mr. Dee C. Hansen
State Engineer
Division of Water Rights
1636 West North Temple
Salt Lake City, Utah 84116

RE: Revision to the Mining
and Reclamation Plan
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Hansen:

Enclosed please find one (1) copy of U. S. Fuel Company's revision to the Mining and Reclamation Plan. This revision is being forwarded for review by the Dam Safety and Water Rights sections of your office in accordance with our Divisions' Memorandum of Understanding (MOU).

As you will recall, the MOU between our Divisions' calls for the following for the Dam Safety Section:

B. Mine Plan Review:

1. Upon submission of a mining and reclamation plan to DOGM, the DOGM will forward a copy of the mining and reclamation plan to Dam Safety. If information additional to that contained in the operator's submission is required, Dam Safety is responsible for contacting the operator to obtain such information. Copies of such requests and also copies of the company's submittal in response to the request will be submitted to DOGM.
2. Within 30 days of receipt of the mining and reclamation plan, Dam Safety shall contact DOGM with their final response to the agency's proposed action on the operator's application.

Mr. Dee C. Hansen
ACT/007/011
June 22, 1984
Page Two

3. If Dam Safety proposes to reject the plan for failure to meet water retention safety standards, the DOGM will call a conference between the state and the operator at the earliest possible date.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan C. Linner of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/sl:jvb
Enclosure
00460



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

June 22, 1984

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

RE: Revision to the Mining
and Reclamation Plan
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Alkema:

Enclosed please find one (1) copy of U. S. Fuel Company's revision to the Mining and Reclamation Plan. This revision is being forwarded for review by the Division of Environmental Health of your office.

As you will recall, the MOU between our Divisions' calls for the following:

B. Mine Plan Review.

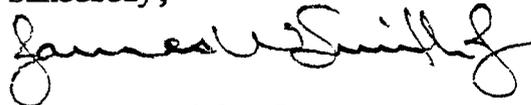
1. Upon submission of a mining and reclamation plan to DOGM, the DOGM, shall, in consultation with DOH, review the operator's list of licenses, permits or approvals to determine whether or not approvals from DOH have been issued.
2. If any permits or approvals from the DOH have not been issued, the DOGM will submit to the DOH those parts of the permit application containing matters within the DOH's jurisdiction or interest for review and response and inform the operator in writing that he must contact DOH for the appropriate permits and approvals.
3. If additional information is required by DOH for any permit or approval, the DOH shall contact the operator for such information. Copies of any such requests and the operator's response to such request shall be forwarded by DOH to DOGM.

Mr. Kenneth Alkema
ACT/007/011
June 22, 1984
Page Two

4. Within two weeks of receipt by DOGM of the mining operator's submission and any additional information requested, each DOH bureau shall contact the DOGM with preliminary written notification of the status of any outstanding permits or approvals. If DOH determines to reject the operator's permit application or has any major problems with the operator's mine plan, the DOGM may convene a conference between the state agencies and the operator as soon as possible.
5. The DOH will make every effort to have their response to the mine plan and any other DOH permits and approvals finally completed within 60 days of the DOH receipt for the operator's complete application for DOH permits and approvals.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan Linner of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/sl:jvb
Enclosure
00470



United States Department of the Interior
 OFFICE OF SURFACE MINING
 Reclamation and Enforcement
 BROOKS TOWERS
 1020 15TH STREET
 DENVER, COLORADO 80202

James Smith
~~File~~
 File if not
 already done
RECEIVED

orig. cc
all
D. Nielson
R. Daniels
J. Smith

Mr. Errol M. Gardiner
 Vice President
 U.S. Fuel Company
 Hiawatha, Utah 84527

JUN 15 1984

cc: **JIM**

JUN 18 1984

ACT/007/011
#2

JUN 25 1984

DIVISION OF OIL
 GAS & MINING

Dear Mr. Gardiner:

This letter is in response to your May 14, 1984, letter and June 1, 1984, submittal regarding the U.S. Fuel Company's proposed unit train loadout facility and highway underpass. The Office of Surface Mining (OSM) has partially completed the review of the supplemental information provided on June 1, 1984, and has determined the information to be incomplete. The results of the review are enclosed so that you may take action in completing the response.

As you requested in your May 14, letter, OSM will consider the unit train loadout facility as part of the current review process of the permit application. Please be aware, however, that due to other requirements for reaching a decision on the application, the completion of the permit decision document has been rescheduled for September 7, 1984. A decision on the mining plan by the Assistant Secretary for Land and Minerals Management is expected to be made within two to four weeks following completion of the decision document. The other issues that must be resolved prior to permit approval include: 1) resolution of the underground water impoundment issues as defined in our May 31, 1984, letter; 2) revision of the reclamation plan as discussed with Mr. Eccli at the OSM Western Technical Center on June 8, 1984; 3) determination of the bond amount for reclamation as required under UMC 805.11; and 4) provision of abatement plans or administrative action on the violations issued by the Utah Division of Oil, Gas, and Mining on May 11, 1984.

The technical analysis of the proposed facility will proceed as stated in the enclosed document. U.S. Fuel should complete the response to the noted deficiencies no later than July 13, 1984. If at any point action on the proposed facility jeopardizes the decision on the permit application, the loadout will be considered as a revision to the permit, when issued, as defined under UMC 788.12.

If you have any questions, please contact Sarah Bransom or Steve Manger at (303) 844-3806.

Sincerely,

Allen D. Klein
 Allen D. Klein
 Administrator
 Western Technical Center

cc: Dr. Dianne Nielson, DOGM
 Susan Linner, DOGM
 Jack Elder, FBD

Determination of Adequacy
Proposed Unit Train Loadout
Response to June 1, 1984 Submittal

UMC 782.15(a) Right of Entry and Operation Information

The applicant sent a letter to the Utah Railway Company on May 14, 1984 requesting their views on the proposed train loadout. The Utah Railway Company responded on May 22 by stating they will lease sufficient land to U.S. Fuel for the facility. This section is now complete.

UMC 782.19 Identification of Other Licences and Permits

The applicant states it is not aware of any licenses or permits required to construct/operate the facility. According to UMC 782.19, it is the applicant's responsibility to provide this information; therefore, this response is incomplete. County and state permits potentially are needed for the road relocation, as well as a state of Bureau of Air Quality permit. The MSHA identification number, date of approval, etc. for the existing refuse pile must be provided. In addition, the applicant must notify MSHA that U.S. Fuel intends to modify the refuse pile in order to construct the loadout facility. The applicant must determine if MSHA approval is required to build the facility.

The applicant must define: a) the type of permit required; b) name and address of issuing authority; c) identification numbers of applications for permits or, if issued, the identification numbers of the permit; and d) if the decision has been made, the date of approval or disapproval of each issuing authority.

UMC 783.12 General Environmental Resources Information

The application does not identify the timing of construction (commencement, completion and operation) as required under UMC 783.12(a). The applicant provides a construction schedule under UMC 784.11 "Operation Plan;" however the schedule conflicts with what is provided in a May 10, 1984 letter to the Bureau of Air Quality (BAQ). The operation plan states that construction will begin in July 1984 and be completed in October; operation is to begin in September 1984. The BAQ letter states construction will begin in July and be completed "eight months later"; operation is to begin in September 1985. Because of the confusion, the response is incomplete.

As stated in the enclosed letter to the applicant, the Office of Surface Mining (OSM) will incorporate the proposed unit train loadout into the current review of the permit application package (PAP). It is anticipated that the permit decision document, which will include the unit train loadout, will be completed in September 1984.

The applicant provided a geotechnical report, completed in January 1983, that discusses a proposed preparation plant and thickener facility, in addition to the loadout and stockpiles. It is unclear if the applicant intends to build these facilities under this permit action. The applicant must clearly define what is being proposed for construction under this permit action. (Also see discussion under UMC 784.11).

UMC 783.16(a) Surface Water Information

The applicant provides cross sections of drainage ditches and catch basins used to contain runoff from the affected area (Exhibit III-3 and III-20A). Technical adequacy of the existing surface water control system will be confirmed by OSM in the technical analysis of the PAP.

UMC 783.24(b) Maps: General Requirements

The applicant has not included the loadout facility (silo) within the disturbed area boundary (Exhibit III-3). The response is incomplete.

UMC 784.11 Operation Plan: General Requirements

The applicant has provided an operation plan describing the proposed facility. Two problems exist with the plan: 1) Exhibit III-20A conflicts with Exhibit III-3 with regard to existing and proposed access to the stockpiles; and 2) the plan states that "construction materials will be basically concrete and steel".

Exhibit III-20A indicates that a road will be located on the west side of the railroad tracks in order to access the silo and stockpiles. The applicant must clarify its intentions with regard to constructing and/or relocating roads to access the facility.

The applicant has not provided a description of the structures to be built in sufficient detail to confirm or calculate the bond (see comments under UMC 784.13(1)(2)(3)).

The operation plan conflicts with the January 1983 geotechnical analysis. The plan states that two 25,000 ton coal stockpiles will be built; the geotechnical report discusses an 18,000 ton and a 2,500 ton stockpile. Also, the report does not include the proposed silo. The applicant must clearly state and describe in the operation plan what facilities are proposed for construction. In addition, the consultants who prepared the geotechnical report offer many recommendations concerning the construction of the proposed facility; however, the applicant has made no commitment to follow these recommendations. The applicant must clearly define in the operation plan what engineering techniques will be utilized to construct the loadout facility as required under UMC 784.11(a).

UMC 784.12(a) and (b) Operation Plan: Existing Structures

The applicant states that a description of the coal refuse pile may be found in Chapter XII of the PAP. A March 9, 1976 letter from the applicant to MSHA references that "maps and plans are attached" however, these items are not provided. The applicant must provide the appropriate maps, plans and narrative that describes the current dimensions, condition, type(s) of material present and estimated volume of material present in the coal refuse pile.

The compliance plan is incomplete. There is no topsoil removal and storage plan for the proposed highway underpass as required by UMC 817.22 through UMC 817.25. The applicant states that "topsoil removed from the site of the railroad underpass will be sampled, stored and protected in accordance with the recommendations of UDOGM". In order to assess compliance with UMC 817.22 through 817.25 under this permit action, the applicant must immediately provide this information to OSM.

The Determination of Adequacy (DOA) response (1/9/84, p. 59) provides a reclamation plan for the loadout area which is now under consideration by OSM and the applicant. The applicant must incorporate into the PAP the revised reclamation plan which must account for the modification of the refuse pile as necessary to construct the loadout facility.

The applicant states in the compliance plan that construction will be carried out "in accordance with UMC 817.85"; however, no details are given (see comments under UMC 784.11). The geotechnical report recommends excavating and replacing the coal refuse with backfill material, however, no information is provided on how the refuse will be compacted once removed/replaced (UMC 817.85(a)(2)). This information must be provided. The technical adequacy of the geotechnical report will be confirmed by OSM in the technical analysis of the PAP.

No plan is provided for control of fugitive dust under UMC 817.95 (see comments under UMC 784.26).

The compliance plan generally discusses the preparation of the coal refuse site for the loadout facility; however, specific details are lacking. The applicant must incorporate the appropriate recommendations made in the geotechnical analysis into the compliance plan (see comments under UMC 784.11).

The applicant states that no further information is required regarding the existing refuse pile because MSHA approved the facility in 1976. Although the existing pile was approved by MSHA in 1976, the requirements of UMC 817.81 through 817.88 must be met. Specifically, the applicant must include a plan for site inspections for the pile (UMC 817.82) and greater detail as to how the pile will be modified (excavated and recompacted) in order to construct the loadout facility (see comments under UMC 784.11).

UMC 784.13(1)(2)(3) Reclamation Plan: General Requirements

The 1981 reclamation plan and the bond estimate (Table III-13) do not provide descriptions of the structures (i.e. thickness of concrete silos, construction of towers) which are needed to confirm/calculate the bond. OSM is currently developing a bond amount based on assumptions regarding the facility's construction (size, type materials, etc.).

UMC 784.14(a) and (b) Reclamation Plan: Protection of Hydrologic Balance

The adequacy of the existing sedimentation control system is being confirmed by OSM. If the existing system requires modification, the reclamation plan will need to be revised.

UMC 784.15 Reclamation Plan: Postmining Land Use

The facility will be reclaimed with the exception of the underpass. The applicant must state who will be responsible for postmining maintenance of the structure and what provisions, if any, are necessary to transfer ownership and maintenance responsibility to the appropriate jurisdiction (transfer of deed, maintenance agreement, etc.). (Also see comments under UMC 782.19 for identification of applicable permits).

UMC 784.23(c) Operation Plan: Maps and Plans

This section is complete; plans are now certified by a professional engineer.

UMC 784.26 Air Pollution Control Plan

This section is incomplete. OSM must independently assess compliance with UMC air quality control requirements, therefore, the applicant must provide a description of the measures proposed for control of fugitive dust as required under UMC 817.95. These measures may also be used to satisfy and receive a permit from the state Bureau of Air Quality (see comments under UMC 782.19).

UMC 784.18 Relocation or Use of Public Roads

The applicant has sent letter to the Utah Department of Transportation (UDOT) and Carbon County regarding relocation of Highway 122 and county road 338. The UDOT responded by stating they had no objections to the underpass, but wanted to review final plans and enter into proper agreements for the relocation.

Archie Hamilton, UDOT, confirmed that a permit is required to prior to reconstruction of the road. No correspondence from the county is included in the submittal. Also, the applicant has not notified the Board of Oil, Gas, and Mining of its plans to relocate the road; therefore public participation requirements of UMC 761.12(d) have not been initiated. The applicant must provide the appropriate correspondence and approval information as required under this section (also see comments under UMC 782.19).

Ford, Bacon & Davis
Incorporated
Engineers-Constructors



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JUN 15 1984

DIVISION OF OIL
GAS & MINING

File ACT/007/011

Folder #2, 13

June 14, 1984

Ms. Sarah Bransom
Office of Surface Mining
Reclamation & Enforcement
Brooks Towers
1020 15th Street
Denver, CO 80202

Re: Plan of Action for U. S. Fuels Reservoir Evaluation

Dear Sarah:

Enclosed are seven copies of the plan of action for evaluation of U. S. Fuel Company's underground reservoir in the Hiawatha No. 2 Mine.

It is hoped that this plan of action adequately addresses the concerns of OSM and MSHA regarding the underground reservoir. Also, it is hoped that the time frame required for this plan is acceptable.

If you have any questions, please call.

Sincerely,

Thomas J. Suchoski/aw

Thomas J. Suchoski
Hydrologist

TJS/aw

Enclosures

cc: Bob Eccli, w/enc. (2 copies)
✓DOGM, w/enc. (2 copies)

U. S. FUEL COMPANY
Hiawatha Mine Complex
Hiawatha, Utah

PLAN OF ACTION FOR EVALUATION OF
UNDERGROUND RESERVOIR

Submitted to the Office Surface Mining

June 15, 1984

PLAN OF ACTION FOR EVALUATION OF
UNDERGROUND RESERVOIR FOR U. S. FUELS
HIAWATHA NO. 2 MINE

U. S. Fuels presents herein, a plan of action to address The Office of Surface Mining (OSM) and The Mine Safety and Health Administration's (MSHA) concerns regarding the underground reservoir in the Hiawatha No. 2 Mine. The three major concerns addressed in this plan are:

1. To obtain data to confirm the stability of bulkhead structures.
2. Based on the collected data, to calculate maximum allowable hydrostatic head for the mine entries.
3. To present an operating plan detailing the reservoirs operation and bulkhead monitoring.

On June 8, 1984, U. S. Fuel Company and their consultants met with representatives in Denver. This meeting was suggested in the letter to U. S. Fuels, to allow discussions of stipulations and to allow a free exchange of ideas on how best to address the concerns raised by use of the underground reservoir. As a result of the June 8 meeting, it was decided by all parties that point 3 of OSM's stipulation letter requiring collection of necessary geohydrologic information, regarding inflow and outflow quantities through the reservoir, be dropped and that U. S. Fuel Company provide a description of reservoir operation and bulkhead monitoring in its place. It was also agreed by all parties present that the ultimate capacity of the reservoir would be

determined from the analysis of the bulkhead seals but shall not exceed approximately 24,000,000 gallons of water. Until the data for analysis is collected and evaluated, U. S. Fuel agrees that the reservoir capacity shall not exceed 15,000,000 gallons.

Bulkhead Evaluation

To allow evaluation of the fourth or east most bulkhead, the mine must be dewatered below the level of that bulkhead. Based on pressure readings taken at the beginning of June (approximately 10.7 psi), approximately 34,000,000 gallons of water are stored in the reservoir (see Exhibit III-18). The fourth seal is located in the mine just above the 22,000,000 to 23,000,000 storage volume level. This corresponds to a pressure reading of approximately 8.5 psi. To dewater the mine to the fourth seal would require a reduction in water volume of approximately 11,000,000 to 12,000,000 gallons of water.

Discussions with the mine foreman have indicated that the mine workings under Gentry Mountain over towards Mohrland can safely handle an additional discharge of approximately 200 gpm. While this system can probably pass more water, it cannot do so safely. At a rate of 200 gpm, the dewatering reduction of 11,000,000 to 12,000,000 gallons will take between 38 to 42 days.

U. S. Fuel will start the dewatering as soon as the mine workings can be set up to handle the additional flow. This should take approximately one to two weeks. Once the water level has been reduced to a level below the fourth seal, there will still be water in the entry behind the bulkhead. This can be

seen in Exhibit III-18. This entry will be drained by drilling a series of two to four inch diameter holes through the bulkhead, starting at the top and staggering across and down the bulkhead. Between drilling each hole, the water back up behind the bulkhead will be allowed to drain. This will allow safe drilling, as large volumes of pressure will not exist at the lower drill holes. This operation is expected to take approximately three to four days.

Following dewatering of the portal entry, a minimum of the three representative sections of the bulkhead wall will be collected for samples. These samples will be taken in accordance with the testing laboratory's directions to allow adequate material testing.

Following sampling, removal of the fourth seal will proceed. While this is underway, the condition of block and mortar will be recorded. Also, construction detail will be recorded. Information gathered will include the type and size of block, reinforcing used (if any), interior construction, block orientation, and mortar thickness and uniformity. Following removal of the blocks from the seal, efforts will be made to obtain representative core samples of native rock from within the mine entry. The core samples will be taken of top rock, bottom rock and the coal, as well as the concrete keys of the bulkhead seal set into sides, and top and bottom of the entry. Once samples of the block wall and samples of the native rock and concrete keys have been obtained, these samples will be sent to the lab for analysis. The information needed for evaluation of

the seal include compression, shear, condition, and competency of the block and native rock. Following engineering analysis of the samples, the data will be evaluated by Ford, Bacon & Davis to determine life of mine and long-term stability of the remaining bulkhead seals and to determine allowable head for each seal. This evaluation will assume the data from the fourth seal is applicable to the three remaining seals.

The process of removing the fourth seal, sampling the bulkhead material and evaluating the stability of the bulkhead should take approximately three to four weeks.

Reduction of Reservoir Capacity

Based on the results of the bulkhead evaluation, U. S. Fuel Company will review the storage volume required for continued mine operation. This information will be used to set a maximum "not to exceed" storage limit for the reservoir - which limit will not exceed 24,000,000 gallons. The fourth seal bulkhead once removed, will not be replaced and the entry will be chained or fenced to prevent access.

The method of maintaining a storage limit will depend on what that limit is. The methods that are being considered will probably consist of the following:

1. Maintain regular pressure reading at the main entryway bulkhead (use both the existing pressure gauges to ensure accuracy of reading).
2. Provide overflow using the fourth portal entry which was opened as a result of data collection and has been fenced to prevent access.

Operation Plan

U. S. Fuel Company commits to providing a description of the reservoir operations methods. This will consist of a description of inflow and outflow activity and pressure monitoring. The information provided for each will entail: who monitors and controls inflow and outflow; who is responsible to see that monitoring or inflow and outflow changes are made; when are the changes and monitoring to be undertaken; and how are those activities performed.

U. S. Fuel Company also commits to describing the inspection system for the bulkheads. This description will also include who is responsible to see inspections are undertaken, who inspects the bulkheads, when do those inspections take place and on what periodic basis, and how will the inspection be conducted.

Report Preparation

Following completion of the analysis and sampling of the bulkheads, and evaluations of the analysis results, which will take the longest period of time, a report will be prepared and submitted to OSM. This report will be submitted by September 21, 1984. To justify this date, U. S. Fuels submits the following schedule:

1. Dewatering will be started approximately the last week of June.
2. Allowing for the dewatering period. Dewatering will be approximately the first full week of August.
3. Allowing two to three weeks for sampling and analysis, this task will be completed the end of August.

4. Evaluation of analysis results and report preparation will take approximately two to three weeks, providing a mid-September completion date.

The report prepared for OSM will include description of bulkhead stability for life of mine and extended life, description of reservoir storage reduction methods, and a description of the operating plan for reservoir.

File ACT/007/011
Folder #2

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

RECEIVED

JUN 11 1984

June 7, 1984

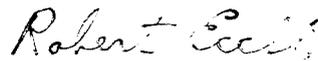
DIVISION OF OIL
GAS & MINING

Mr. Allen D. Klein
Administrator, Western Technical Center
Office of Surface Mining
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Dear Mr. Klein;

As per your clarification letter of June 4, 1984 relating to road maintenance at the Hiawatha Mine Complex, please find seven (7) copies of our Road Maintenance Program enclosed.

Sincerely,



Robert Eccli
Sr. Mining Engineer

RE:lj

Enclosure

cc: Jim Smith, DOGM



APPENDIX III-8

ROAD MAINTENANCE PROGRAM

Class I and Class II roads will be maintained such that approved design standards are met throughout the life of the entire transportation facility including surface, shoulders, parking and side areas, approach structures, erosion control devices, cut-and-fill sections, and such traffic-control devices as are necessary for safe and efficient utilization of the roads.

Class I road maintenance will include repairs to the road surface such as blading, filling of potholes and replacement of gravel or asphalt on an as-needed basis. Revegetating, brush removal, watering for dust control and minor reconstruction will be performed as needed. Erosion control devices and drainage systems will be cleaned and repaired once a year, in the spring, and as needed throughout the year.

Class I roads damaged by catastrophic events such as floods or earthquakes will not be used until reconstruction of damaged road elements. The reconstruction will be completed as soon as practicable after the damage has occurred.

Class II road maintenance will include basic custodial care as required to protect the road investment and prevent damage to adjacent resources. Erosion control and drainage systems will be cleaned and repaired once a year, in the spring, and as-needed throughout the year. Repair of structures, replacement of surface and restoration of the road prism will be performed as needed.

Class III road maintenance will be performed as needed to ensure minimization of erosion for the life of the road. Class III roads will not be used if climatic conditions are such that usage may cause degradation of water quality.

June 5, 1984

Memo to Coal File

RE: Field Observations
Hiawatha Complex
U.S. Fuel Company
ACT/007/011
Folder #2
Carbon County, Utah

On May 9, 1984 and June 1, 1984 the question of reclamation requirements for the coal processing waste/slurry pond area of the Hiawatha complex was explored in the field. On the former date Randy Gainer and Frank Anderson consultants for U.S. Fuels Jean Semborski of the company and Lynn Kunzler and Tom Portle of the Division were present. On the latter date Randy Gainer and Jean Semborski represented the company and were accompanied by Susan Linner and Tom Portle of the Division and Walt Swain of OSM.

The objective was to evaluate the success of reclaimed waste banks and other areas as well as invasion of all areas in an attempt to ascertain feasible reclamation methods and assist in test plot design. It is hoped that these meetings have facilitated the resolution of outstanding concerns/obstacles relevant to the permitting process.

Observations, potential resolutions of permitting and DOGM recommendations follow.

Observations:

- Coal processing waste material consisting of carbonaceous shales and mudstone is somewhat variable (though from what appears on the surface) it seems to break down rapidly, often it can be crushed by hand. Although more durable channel sandstones were noted they were a minor constituent. Mechanisms for breakdown appear to be: 1) passes by equipment; 2) frost-freeze cycles; 3) geochemical weathering and 4) biological effects such as root action, organic acids, etc.
- A large amount of fines and coal lumps were visible (possible improvements in the processing plant could aid in reducing this volume.

- The carbonaceous shale also acted in a sponge-like fashion to hold moisture. Russian thistle roots were observed penetrating along layers in this material to a large degree. Such roots were also observed to penetrate to a large degree. Such roots

were also observed to penetrate to at least 18 inches in weathered coal processing waste by slurry pond #1.

- Little pyrite and associated staining were observed.

-Reclamation works on the north bank of slurry pond #1 (in coal processing waste) has displayed moderate to good success. Alluvial soils (silt loams and silty clay loams) had been deposited on the waste banks at depths ranging from 6 inches to in excess of 18 inches. Species observed were wild lettuce, Russian thistle, crested wheatgrass, Penstemon palmeri, Erigeron spp, Astragalus, spp., Carex spp., Bromus inermis, Sphaeralcea spp., Oryzopsis hymenoides, Kochia spp., sagebrush and rabbitbrush was found in thinner soil situations.

- Data do not indicate any potential for chemical toxicity from coal processing waste materials nor were any toxicity symptoms noted in plants.

- Areas of high clay were found in one hole on pond #1 on June 1.

- Generally no plant growth was observed in the more coarse fresh coal processing waste.

- Wind blown fines had covered soil in one area on pond #1 (east portion of retopsoiled area).

- It may be reasonable to expect that pre-1970 waste would have a higher concentration of fines since there was not a developed market prior to this. U. S. Fuel began harvesting fines in the mid-1970's.

- Indian ricegrass was commonly observed even in pure coal fines. Stipa comta, Sporobolus spp, Sitanion hystrix, Bouteloua gracilis, Hilaria jamesii and sagebrush were observed on various disturbed untopsoiled locations.

- Warm season grasses such as Bouteloua, Hilaria and Sporobolus were noted growing at relatively high (7200 feet) elevation in dark waste materials possibly due to the warmer environment earlier in the season.

- Roots were commonly observed to 18 inches and were able to move into the waste material below the soil:waste interface.

- This was to be expected and has been noted by various field researchers (1,2,3). Greater root and foliage production as a function of increasing soil depth and poorer root production have been noted in spoil materials (3,4).

- The occurrence of the more mesic Carex in these materials was noteworthy. A possible explanation may be the concentration of moisture at the soil:waste interface. The potential for retarded moisture movement at the interface has been suggested by Merrill and others (1980).

It is important to note that Barth (1983) suspected a relationship between increasing content of carbonaceous material and reduced plant growth.

The lack of nutrients in spoil was cited as the probable cause for poor plant growth in these materials (3) while a problem regarding the availability of N even when it was added to spoil materials was observed by Reeder and Berg (1977).

It was agreed by all on the trip that the goal of reclamation test plots should be to identify treatments which will result in optimum versus maximum reclamation. Revised test plot designs which best accommodate the permitting requirements will be forthcoming contingent on agreement by all parties on the range of test conditions necessary.

- Quantification of the weathered processing waste was discussed although this may be eventually abandoned for more pragmatic and economically feasible methods.

Recommendations:

1) Test plot conditions should be implemented in a manner so as to best emulate proposed reclamation procedures.

2) Soil amendments should be provided to the underlying coal processing waste materials to increase the suitability of this material.

3) The relationship between carbonaceous materials and plant growth should be considered.

4) Every effort should be made to identify successful techniques in the test plot scheme so as to avoid the disruption of the productive alluvial sage flat north of Miller creek which would result from its use as a topsoil borrow area.

5) The objectives of the test plotr should be clearly identified, stated and actual test plot conditions should parallel these objectives.

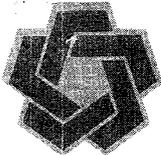
Thomas L. Portle *TLP*
Reclamation Soils Specialist

TLP/jvb

cc: Randy Gainer, Earth Fax
Walt Swain, OSM (Denver)
Jean Semborski, U. S. Fuel
Sue Linner, DOGM
Lynn Kunzler, DOGM
91590

Literature

- 1) Barth, R.C., Soil-depth requirements to reestablish perennial grasses on surface-mined areas in the Northern Great Plains. 1984 Mineral and Energy Resources v. 27(1).
- 2) Merrill, S.D., Sandoval, F.M., Power, J.F., and Doering, E.J., 1980. Salinity and sodicity factors affecting suitability of materials for mine-land reclamation: in Adequate Reclamation of Mined Lands; Symposium Proceedings, Soil Conservation Society of America. Billings, Montana, (3) pp 1-25.
- 3) McGinnies, W.J., and Nicholas, P.J., 1980. Effect of topsoil thickness and nitrogen fertilization on the revegetation of coal mine spoils. Journal of Environmental Quality. Vol. 9, pp 681-685.
- 4) Nicholas, P.J., and McGinnes, W.J., 1982. An evaluation of 17 grasses and 2 legumes for revegetation of soil and spoil on a coal strip mine. Journal of Range Management 35 (3), pp 288-293.
- 5) Reeder, J.D., and Berg, W.A., 1977. Plant uptake of indigenous and fertilizer nitrogen from a cretaceous shale and coal mine spoils. Soil Science Society of America Journal 41:919-921.



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Wildlife Resources

1596 West North Temple • Salt Lake City, UT 84116 • 801-533-9333

May 15, 1984

Dr. Dianne R. Nielson, Director
Utah Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, UT 84114

Attention: James Smith

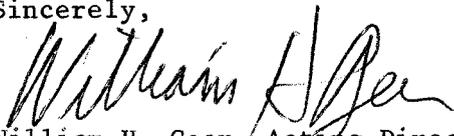
Dear Dianne:

The Division has evaluated U.S. Fuel Company's April 5, 1984, response and April 6, 1984, addendum for the Mining and Reclamation Plan at Hiawatha Complex. Enclosed are the Division's specific comments. Generally speaking, our concerns are oriented to loss of water and loss of wetland habitat. There are numerous ways to mitigate for these impacts. Development of a well or other flowing water source and a pipe delivery system to replenish lost flows is practical. But the loss of wetlands may only be mitigated on a short-term basis, considering that the mine one day will be abandoned. An obvious question is, "Who will maintain the mitigation facility after abandonment of the mine?" Development of guzzlers to replace drinking water in areas of reduced or lost flows has been suggested. Guzzlers are satisfactory and would be expected to have few maintenance problems, but long-term maintenance remains a question. Also, the loss of critical valued wildlife habitat (wetland vegetation) is not mitigated with a guzzler.

In an effort to help resolve or provide a mitigation solution to the problem of lost wetland vegetation, the Division may consider development of a wetland unit at our Desert Lake Waterfowl Management Area in Emery County. We have calculated the net gain in acreage of wetland habitat, as well as total cost to develop the unit. In situations where mitigation is needed and it is deemed by the regulatory agency that a mine cannot reasonably develop appropriate wetland vegetation on or adjacent to their mining facility, a company could financially participate in the mitigation development at Desert Lake. Such a procedure would satisfy the Division's and the U.S. Fish and Wildlife Service's mitigation policies.

Thank you for an opportunity to review the MRP and provide comment.

Sincerely,


William H. Geer, Acting Director
DIVISION OF WILDLIFE RESOURCES

Enclosure

To file *copy to J. Smith*
cc file

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Douglas F. Day, Division Director

FILE ACT/007/011
Folder 2

copy to Sue Lynn

RECEIVED

MAY 17 1984

DIVISION OF OIL
GAS & MINING

JIM
MAY 22 1984

Dr. Dianne Nielson
May 15, 1984
Page 2

UTAH DIVISION OF WILDLIFE RESOURCES' COMMENTS
RELATIVE TO U.S. FUEL COMPANY'S APRIL 6, 1984 ADDENDUM
FOR THE MINING AND RECLAMATION PLAN (MRP)
AT THE HIAWATHA COMPLEX

Page 110, last paragraph

At which time that riparian habitat to be or already lost is more fully defined and a mitigation plan developed, the Division would like an opportunity to review. This habitat type is of critical value to wildlife.

Page 131E - Potential impacts to hydrologic resources from subsidence remains a concern. Impacts to wildlife from reduced or lost flows in channels or at seeps and springs lie within two areas. The first is the reduction or loss of drinking water for the animals. The second is the reduction or loss of the associated riparian-wetland habitat. As you know, these habitats formally classified as wetlands are ranked as being of critical value to a local area's wildlife. The company must develop a specific mitigation plan. The Division would like an opportunity to review such a plan.

To Sue
File Act 1007/11
Folder #2

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

RECEIVED

May 14, 1984

MAY 16 1984

DIVISION OF OIL
GAS & MINING

Mr. Stephen F. Manger
Utah Task Force Leader
United States Department of the Interior
Office of Surface Mining
Brooks Towers
1020 15th Street
Denver, Colorado 80202

JIM

MAY 16 1984

Dear Mr. Manger;

This is in response to your letter of April 27, 1984 regarding additional information on the Middle Fork and South Fork haul roads near Hiawatha.

Enclosed are seven (7) copies of Exhibits XIII-2C, 2D and 3E. These exhibits give as-built longitudinal profiles of the roads. Plan view showing the horizontal configurations and drainage as well as cross sections showing surfacing, width and crown were previously submitted in our July 1983 submittal (see Exhibits XIII - 2A and 2B and XIII - 3A, 3B, and 3D). Both roads were constructed prior to the Act and no pre-construction profiles of the original ground surface are available, therefore, no cut and fill volumes can be determined with reasonable accuracy. Rough estimates of cut and fill volumes can be inferred from the plan view contour maps mentioned above.

We cannot find a regulation specifying the need for a written road maintenance program. UMC 784.24 does not mention it. UMC 817.155 specifies maintenance procedures which must be followed but does not specify a written plan. Also, it is our understanding that UMC 817.50 through 817.176 has been suspended by the Secretary of the Interior or the Court of Appeals. Please provide legal clarification of these issues. We will submit our road maintenance program immediately upon receipt of reference to legal justification.

Sincerely,



Robert Eccli
Sr. Mine Engineer

RE:lj

Enclosure

cc: James Smith, DOGM



RECEIVED

MAY 10 1984

DIVISION OF OIL
GAS & MINING

To Sue
File Act/007/011
Folder #2
3482
SL-025431
(U-921)

MAY 8 1984

JIM

MAY 10 1984

Memorandum

To: Utah Senior Project Manager, OSM, Denver

Attn: Ms. Sarah Bransom

From: Chief, Branch of Mining Law and Solid Minerals
BLM-SO, Salt Lake City

Subject: United States Fuel Company, Hiawatha Complex, Carbon and
Emery Counties, Utah, Permit Application Package (PAP)

Six submittals of subject information identified and listed below have been reviewed for completeness and technical adequacy:

1. Information included and attached to United States Fuel Company letter dated March 22, 1984, (Eccli to McKean) and identified as response to BLM memo dated March 16, 1984, and telephone conversation of March 22, 1984, (Eccli to McKean).
2. Maps and pages forwarded with your letter dated March 30, 1984, and identified as "02/13/84 receipt of revisions for mining and reclamation plan."
3. Maps and pages forwarded with your letter dated April 02, 1984, and identified as "03/15/84 submittal as revised maps and narrative for mining and reclamation plan in response to OSM DOA of 03/02/84."
4. Three maps forwarded with your letter dated April 11, 1984, and identified as "04/06/84 submittal of revisions for mining and reclamation plan in response to 03/29/84 request regarding unit train loadout proposal."
5. Two maps and pages forwarded with your letter dated April 12, 1984, and identified as "04/05/84 submittal of revisions for mining and reclamation plan in response to OSM inquiry of 03/29/84."
6. Two maps and pages forwarded with your letter dated April 23, 1984, and identified as "04/12/84 submittal of revisions for mining and reclamation plan in response to OSM's inquiries of 04/06/84."

We have determined that the information received with the above submittals is compatible with 43 CFR 3482.1(c) rules and regulations and will not affect proposed coal recovery procedures or cause conflicts with future recovery of the resource.

The total PAP on file in this office consists of the following:

1. Four Permit Application Volumes dated March 1981 (amended).
2. Three Mining and Reclamation Plan Volumes dated November 7, 1983, (amended).
3. Three Apparent Completeness Review Response Volumes dated July 1983 (largest volume amended).
4. One Mining Plan Volume dated May 5, 1977.

We have determined that the Resource Recovery and Protection Plan (R2P2) or underground mining part of the subject PAP on file in this office and listed above, conforms with 43 CFR 3482.1(c) rules and regulations. The proposed coal recovery procedures should safely obtain maximum economic recovery of the coal resource within the plan area by following the planned technology and by using the types of equipment listed in the plan. The R2P2 part of the PAP is adequate for BLM administration of the associated Federal coal leases.

cc: Moab District
✓ DOGM
US Fuel Co.

/s/ JACKSON W. MOFFITT



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

Day J. Smith
cc file

RECEIVED

MAY 4 1984

DIVISION OF OIL
GAS & MINING

MAY 0 1 1984

Mr. Robert Eccli
Senior Mining Engineer
U. S. Fuel Company
Hiawatha, Utah 84527

JIM
MAY 14 1984

~~To file~~
File
ACT/007/011
Folder 2

Dear Mr. Eccli:

This letter is in response to your March 9, 1984, letter requesting clarification of the Office of Surface Mining (OSM) position on the equipment storage yard, located east of slurry impoundment No. 5. This office has re-evaluated the July 11, 1978, opinion provided by the OSM Regional Solicitor and we have determined that the equipment storage area must be designated as a disturbed area within the permit area boundary. OSM's site visit on April 12, 1984, to the Hiawatha Mines Complex confirmed that the storage area is: 1) actively used, 2) located adjacent (approximately 500 feet) to the mine operation, and 3) its use is incidental to the operation of the mine; thus, this area falls within the definition of surface coal mining activity under UMC 700.5 (Definitions: Surface coal mining activities). Further clarification of the definition of support facilities and surface mining activities may be found in OSM's recently revised regulations Section 701.5, 30 U.S.C. 1201 et seq., October 30, 1983.

In addition to this area, OSM's visit with the state inspectors confirmed that three other areas are being used as mining support facilities, yet are not designated as a disturbed area within the permit area boundary. The equipment storage area and building located directly south of the mine offices are being actively used in conjunction with coal mining activities (see attached map for approximate boundary); therefore, this area must be included within the disturbed area boundary. In addition, the corridors located on the east and west side of the Utah Railroad lines are actively being used by U.S. Fuel to haul, transport, and store coal prior to shipment, and must be included in the disturbed area boundary.

The third area in question is the use of Slurry Ponds No. 2 and No. 3. Our site visit confirmed that these ponds are currently being used as sedimentation control structures to contain runoff from Slurry Pond No. 4; therefore, the Slurry Pond No. 2 and No. 3 areas shown on Exhibit III-3 as being abandoned prior to 1975 must now be addressed for reclamation in accordance with UMC 784.13.

Enclosed you will find a list of information requirements for each of these areas that must be provided by the U.S. Fuel Company. We have referenced those items that have been requested in previous Determination of Adequacy (DOA) documents.

A response to these items must be received no later than May 11, 1984. Please contact us immediately if you have any difficulty in meeting this schedule. If you have any questions, please contact Sarah Bransom or Steve Manger at (303) 837-3806.

Sincerely,

AS

Allen D. Klein
Administrator
Western Technical Center

Enclosure

cc: Dr. Dianne Nielson, DOGM ✓
Jack Elder, FBD

Determination of Adequacy (DOA)

U. S. Fuel Company

Hiawatha Mines Complex

UMC 783.24: Maps: General Requirements

The applicant must provide a revised Exhibit III-3 (and all other appropriate exhibits) and narrative to describe and include the areas listed below as designated disturbed areas within the permit area in accordance with UMC 783.24, 784.23, and 784.12.

I. Equipment Storage Yard - (East of Slurry Pond No. 5)

UMC 784.13 RECLAMATION PLAN: GENERAL REQUIREMENTS

A reclamation plan has not been provided for the equipment storage yard located east of Slurry Pond No. 5 and immediately south of Highway 122. U. S. Fuel must provide a postmining topography map and a reclamation plan in accordance with the requirements of this regulation (March 2, 1984 DOA). The plan is to include:

- o An analysis of soil characteristics present on the yard (chemical and physical) to determine the suitability of the soils for reclamation (UMC 783.13(b)(4) and 817.21).
- o A complete, detailed discussion of how topsoil or substitute topsoil material was removed (UMC 784.13(b)(4) and 817.22).
- o Discussion of how topsoil was stockpiled and how it is being protected (UMC 784.13(b)(4) and 817.23).
- o Plans for topsoil or substitute topsoil redistribution (UMC 784.13(b)(4) and 817.24).
- o A commitment to test at the time of reclamation for nutrient deficiencies and recommended rate of fertilizer/amendment application, or based on current analyses, provide test results with the proposed rates of fertilizer/amendment application.
- o Identification of the seed mixture and rates to be used for reclamation of this area (UMC 784.13(b)(5)).

UMC 784. 16 RECLAMATION PLAN: PONDS, IMPOUNDMENTS, BANKS, DAMS, AND EMBANKMENTS

Exhibit III-3 shows a storage yard about 500 feet east of Slurry Pond No. 5 and immediately south of Highway 122. No runoff control plan has been provided for the area. U.S. Fuel must provide a runoff/sedimentation control plan for this area for both during mining and during reclamation activities (March 2, 1984 DOA). These plans must demonstrate that the runoff leaving the disturbed area will meet effluent limitations and that all sediment control structures comply with UMC 817.45, 817.46, 817.47, and 817.49.

UMC 805.11 PERFORMANCE BOND

The applicant must provide the estimated costs for reclamation of this area in accordance with UMC 784.13.

II. Equipment Storage Yard - (South of Mine Office Building)

UMC 784.16 RECLAMATION PLAN: PONDS, IMPOUNDMENTS, BANKS, DAMS, AND EMBANKMENTS

A runoff control plan must be provided for this area in accordance with UMC 784.16, 817.45, 817.46, 817.47, and 817.49.

UMC 817.133 POSTMINING LAND USE

The applicant must provide postmining land use plans for this area in accordance with UMC 817.133(c).

III. Railway Corridor

UMC 784.16 RECLAMATION PLAN: PONDS, IMPOUNDMENTS

A runoff/sedimentation control plan must be provided for the area that is currently being used within the railroad corridor to haul, store, and load coal. Specifically, as-built drawings must be provided for the ditches east of the tracks and the catch basin draining the area north of Slurry Pond No. 2, east of the tracks.

UMC 784.13 RECLAMATION PLAN: GENERAL REQUIREMENTS

The applicant must clearly define on a revised Exhibit III-3 (and on all other appropriate exhibits) which areas are used for coal haulage and storage within the railroad corridor. Those areas being used which are not within the railroad right-of-way must be addressed for reclamation as required by UMC 784.13. A postmining land use plan for the railroad corridor and adjacent areas currently being utilized by U.S. Fuel must be provided in accordance with UMC 817.133(c).

IV. Slurry Ponds No. 2 and No. 3

UMC 784.13 (b)(4) RECLAMATION PLAN: GENERAL REQUIREMENTS

Slurry Ponds No. 2 and No. 3 are currently being used to contain runoff from Slurry Pond No. 4; therefore, the applicant must amend the reclamation plan to include these areas. The soil test data submitted to OSM (Table VIII-12) indicates that the sample taken in Slurry Pond No. 3 contains 80 percent organic matter. As was done for Slurry Pond No. 1, the applicant must confirm that the sample taken in Slurry Pond No. 3 is representative of the subsoil that will remain in the area after the coal refuse material is removed. If the sample is not representative of the material to be reclaimed, new samples must be taken and the analyses submitted to OSM.

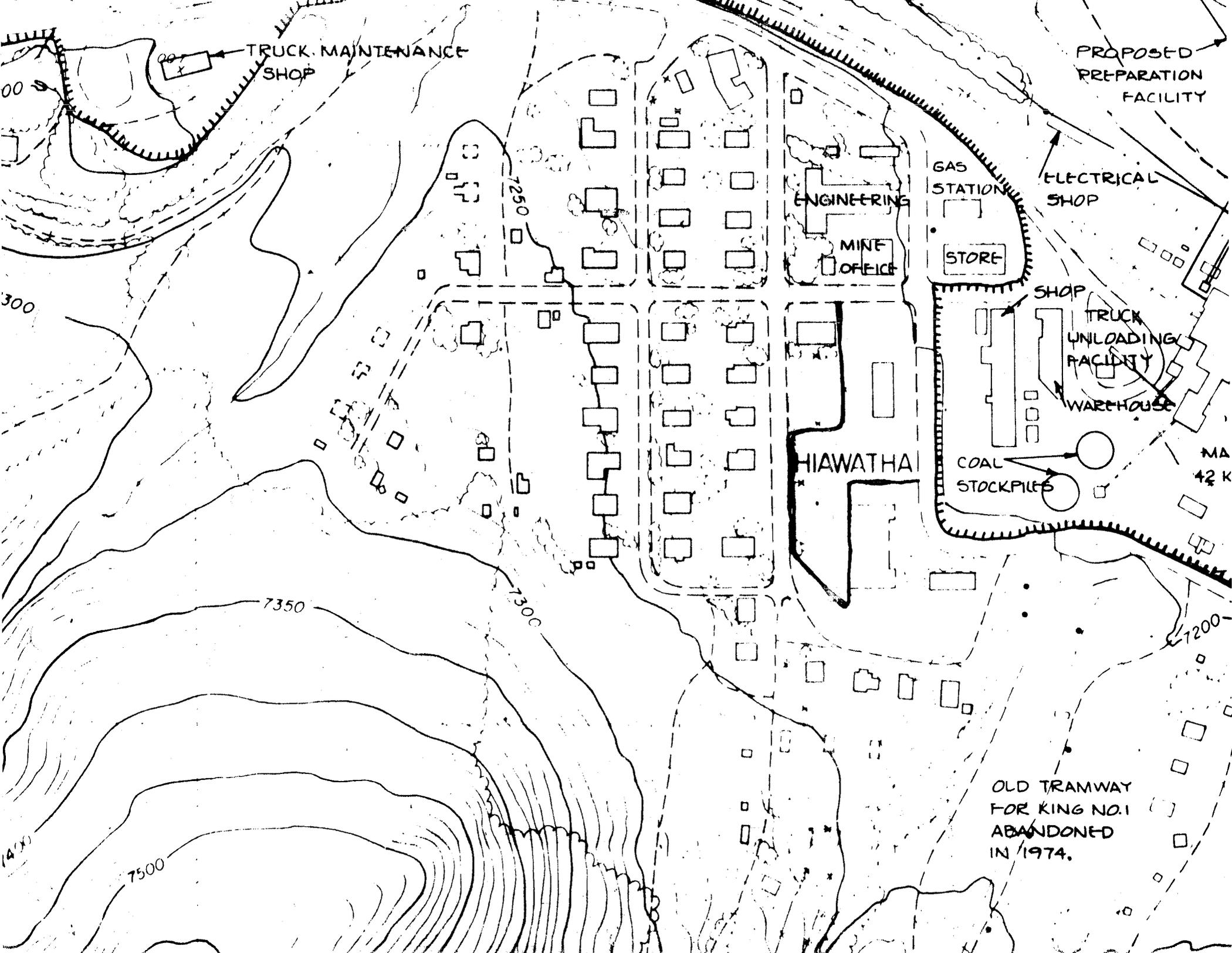
Based on the information provided for Slurry Pond No. 3 (Table VIII-12), as compared to the data submitted for Slurry Pond No. 1 (Table VIII-18), it is concluded that Pond No. 3 contains the worst-case materials to be reclaimed. Therefore, the applicant must submit a revised test plot design and location that

accounts for the worst-case materials present in Slurry Pond No. 3 (UMC 817.22(e)) (March 2, 1984).

The data submitted in Table VIII-12 for Slurry Ponds 1, 3, 4, and 5 indicate that there are 0 percent coarse fragments greater than 2 millimeters (mm) in size. Table VIII-18 provides revised test results for Slurry Pond No. 1 and indicates that 54 percent and 27 percent of the coarse fragments present in Samples A and B, respectively, contain coarse fragments greater than 2 mm in size. Based on this data and the April 12, 1984, site visit, OSM has determined that the majority of the materials to be reclaimed are of a gravelly-loam texture and contain a fairly high concentration of coarse fragments. The nature of this material will affect its ability to retain moisture and nutrients.

Recently published studies report that when 27 inches of silt loam topsoil was placed over a nonsaline, nonsodic gravelly-sandy loam spoil, vegetation yields were only 85 percent of maximum yields obtained with the same topsoil thickness over a fine-textured spoil. These data suggest that a total depth of at least 36 to 42 inches of medium-textured material would be required over gravelly-sandy loam spoil for maximum yields (Halvorson, G. A., Melsted, S. W., and Doll, E. C., 1982, Topsoil and subsoil requirements of land reclaimed over nonsaline, nonsodic overburden: Madison, Wisconsin, Agron. Abst., American Society of Agronomy).

Based on the revised data provided in Table VIII-18, OSM's technical analysis, and our recent site visit, we have determined that a field plot design testing for 6 and 12 inches of substitute material is not adequate to allow us to make the findings required under UMC 786.19(b). A field trial testing several thicknesses of topsoil ranging from 6 through 42 inches over the final thickness of refuse material would be more representative of an appropriate depth to ensure successful reclamation. If the test plot were to fail at the currently proposed 6 and 12 inch thicknesses, the requirements of UMC 817.85 would become applicable to reclamation of the coal slurry area; hence, 4 feet of cover would be required. To demonstrate the feasibility of reclamation, the applicant must either commit to covering the slurry impoundments with 4 feet of cover, or revise the test plot design to test a variation in thickness of substitute material over the coal refuse material that includes depths in the 30-42 inch range. (February 1984 DOA)



TRUCK MAINTENANCE SHOP

PROPOSED PREPARATION FACILITY

ENGINEERING

GAS STATION

ELECTRICAL SHOP

MINE OFFICE

STORE

HIAWATHA

SHOP

TRUCK UNLOADING FACILITY

WAREHOUSE

COAL STOCKPILES

OLD TRAMWAY FOR KING NO. 1 ABANDONED IN 1974.

00

300

7250

7300

7350

7200

7500

MA 42 K



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

Rec'd.
5-3-84

To Sue
File
ACT/007/011
Folder 2,3
cc: Wayne

MAY 0 1 1984

Mr. Errol Gardiner
Vice President
U.S. Fuel Company
Hiawatha, Utah 84527

JIM

MAY 14 1984

Dear Mr. Gardiner:

This letter is in response to your April 6, 1984 submittal of materials pursuant to the U.S. Fuel Company's proposed unit train loadout. In order to review and assess the proposed facility in terms of its compliance with the applicable regulations, additional information is required. Our major concerns include the following:

1. removal of the existing coal waste material and preparation of the site for construction,
2. demonstration of right-of-way,
3. the need to obtain approvals from state and county authorities for the proposed highway underpass,
4. requirements for approval from the Utah Bureau of Air Quality for the unit train facility, and
5. reclamation of the facility.

The enclosed document defines the information requirements needed to perform the technical analysis of this proposal. Although this is a previously disturbed area, the original 1981 permit application and supplemental volumes do not specifically address the proposed unit train loadout facility. The information provided to date is incomplete and to include this proposal in the current review of the permit application would cause significant time delays and place the permitting of the existing mine operation in jeopardy. Therefore, the Office of Surface Mining (OSM) has determined that the unit train loadout facility should be treated as a revision to the permit, when issued, as defined under UMC 788.12.

OSM encourages the U.S. Fuel Company to begin obtaining the necessary clearances and approvals from state and local authorities in order to avoid further delays in your development plans. Upon submittal of the required information, the regulatory authority will take action on the permit revision.

If you have any questions regarding this decision, please contact Steve Manger or Sarah Bransom at (303) 837-3806.

Sincerely,

A handwritten signature in black ink, appearing to read "Allen D. Klein". The signature is written in a cursive style with a large initial "A" and a distinct "K".

Allen D. Klein
Administrator
Western Technical Center

Enclosure

cc: Dr. Dianne Nielson, UDOGM ✓
Mr. Montie Keller, Bureau of Air Quality
Mr. Jack Elder, FBD

DETERMINATION OF ADEQUACY
U.S. FUEL COMPANY
HIAWATHA MINES COMPLEX
PROPOSED UNIT TRAIN LOADOUT

UMC 782.15(a) Right of Entry and Operation Information

The applicant has not provided documentation that supports the right to construct and operate the unit train loadout within the Utah Railroad property.

UMC 782.19 Identification of Other Licenses and Permits

The applicant has not identified the licenses and permits required under applicable State and Federal laws and regulations to construct and operate the unit train facility.

UMC 783.12 General Environmental Resources Information

The application does not identify the timing of construction (commencement, completion and operation) as required under UMC 783.12(a).

UMC 783.16(a) Surface Water Information

The applicant must provide as-built drawings, location (UMC 783.25 (i)), and description (UMC 784.11(6)) of the ditches and catch basin currently used to contain runoff from the disturbed area proposed for construction of the unit train loadout. The applicant must demonstrate that the current sedimentation control system will accommodate the unit train loadout facility.

UMC 783.24(b) Maps: General Requirements

The applicant must designate the area proposed for the unit train loadout facility as a disturbed area within the permit area boundary. All applicable exhibits must be revised to indicate a revision of the disturbed area boundary.

UMC 783.25 (i) and (k)(3) Cross-Sections, Maps and Plans

Based upon the April 12, 1984 field tour, it is apparent that an undefined amount of coal waste is presently occupying the proposed site for the coal stockpiles, transfer tower, and conveyor. The applicant must provide plans for preparing the existing surface material (removal on or off site, grading, etc.) as needed to construct the proposed facility (UMC 784.11(4)) (UMC 784.13(4)). Pre- and post-construction contour maps must be provided.

UMC 784.11 Operation Plan: General Requirements

The applicant must provide a narrative describing the construction and operation of the loadout facility. Included in this narrative must be a description of each component (including all access routes) of the loadout system (dimensions, capacity, material construction, etc.).

UMC 784.12 (a) and (b) Operation Plan: Existing Structures

The disturbed area coal refuse pile is considered as an existing structure under this UMC requirement. In constructing the unit train loadout, the applicant is modifying or reconstructing this area; therefore, the applicant must provide a compliance plan in accordance with UMC 784.12 (a) and (b). The applicant must provide a description of the refuse pile (dimensions, current condition, type of material present, estimated volume of refuse, etc.). The applicant must also provide a compliance plan in accordance with UMC 784.12 (b) (1) through (4) and UMC 817.81 through 817.83, and UMC 817.180 and 817.181. The compliance plan must include: a) a demonstration showing that the surface runoff does not degrade surface or ground water in accordance with UMC 817.42 and 817.83 (d); b) foundation designs supported by a geotechnical analysis which demonstrates that the refuse pile will safely support the structures which are proposed to be constructed on the site (UMC 784.12 (b)(1), and c) slope protection measures to minimize surface erosion (UMC 817.83 (c)).

UMC 784.13 (1)(2)(3) Reclamation Plan: General Requirements

The applicant must specifically include the reclamation of the proposed facility in the existing permit application reclamation plan. A timetable for removal of the facility, detailed estimate of the cost to remove and reclaim the facility area and a plan for backfilling, soil stabilization, grading, etc. must be provided. A revised bond estimate must be provided that includes the dismantling and removal of the structures, in accordance with UMC 800.5.

(4) and (5) The reclamation plan must include the reclamation of the corridor (not within the Utah Railroad right-of-way) that is currently used and is proposed to be used by the applicant in conjunction with the unit train loadout facility.

UMC 784.14 (a) and (b) Reclamation Plan: Protection of Hydrologic Balance

The applicant must provide a reclamation plan for the drainage ways, catch basin, and ditches to be used as sedimentation control structures in connection with the proposed facility in accordance with this regulation and UMC 784.16(b) and 817.49.

UMC 784.15 Reclamation Plan: Postmining Land Use

The applicant has not provided a postmining land use plan for the unit train facility area. The applicant must include the comments of the owner of the affected property concerning the postmining land use plan.

UMC 784.23 (c) Operation Plan: Maps and Plans

The designs submitted of the unit train facility must be certified by a qualified professional engineer.

UMC 784.26 Air Pollution Control Plan

According to Mr. Montie Keller, Bureau of Air Quality, the applicant has not filed a "Notice of Intent" to construct the unit train loadout facility in accordance with Section 3.1 of the Utah Air Conservation regulations. Mr. Keller confirmed that approval of the Bureau is required to construct and operate the facility. Approval takes a minimum of 60 days. The requirements of UMC 784.26 and UMC 817.95 (fugitive dust control plan) must be submitted by the applicant.

UMC 784.18 Relocation or Use of Public Roads

The applicant proposes to relocate a portion of state highway 122 and county road 338 to accommodate a proposed overpass for the rail line. The applicant has confirmed (4/25) that the overpass is needed for the loadout system to avoid train blockage of the access to the town when coal is being loaded. The applicant must meet the requirements of 761.12(d) which includes obtaining the necessary approvals of the authority with jurisdiction over the public road(s).



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

April 30, 1984

Ms. Sarah Bransom
Office of Surface Mining
Brooks Towers
1020 Fifteenth Street
Denver, CO 80202

RE: Draft TA Comments
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Ms. Bransom:

The Division's technical staff have reviewed the Draft Technical Analysis (TA) for the Hiawatha Complex, received April 10, 1984. Several comments and concerns regarding the content and format of the TA have surfaced during the review and are detailed in this letter.

The general format of the TA is a major concern. The TA discusses the content of the Permit Application Package (PAP) and references the PAP extensively. However there is too little analysis of technical compliance with the performance standards, which is supposed to be the main purpose of a TA document. Also, many of the proposed "Conditions" to permit approval appear to require the acquisition of baseline information, which must be obtained prior to any permit approval being granted (ref. Conditions #1, #6, #9, #10, #12, #13 and #15).

Other specific concerns are enumerated as follows:

1. Reclamation procedures should include scarification and/or ripping of the surface prior to placement of topsoil. The TA should also discuss disposal of contaminated surface materials during reclamation and reclamation of all soil borrow areas.
2. The TA repeatedly references OSM rather than the more generic term "regulatory authority".

3. The TA mentions in several places a new Utah groundwater monitoring policy and a DOGM/OSM agreement on such a policy. DOGM has not entered into any such agreement. Site specific recommendations were made regarding the Hiawatha Complex; however, this does not constitute a new groundwater monitoring policy for DOGM.
4. During a field inspection with DOGM, OSM and their consultants it was pointed out by a DOGM inspector that a stream of sewage water enters Slurry Ponds 5 and 5A. This should be taken into account in the analysis of compliance.
5. The permanent diversion is referred to as being in compliance, however, field observations have shown that this is not the case since the diversion isn't riprapped as required.
6. Condition #7 requires that sediment control structures be implemented for the equipment storage yard upon reclamation. Such additional disturbance for a small flat area seems unnecessary. It is recommended that it be handled as a Small Area Exemption.
7. Condition #11 requires plans to be submitted for a topsoil storage site for an area that has already been disturbed without saving of topsoil, and is therefore unnecessary.

Middle Fork Sediment Pond

A cross culvert to the sediment pond should be installed underneath the existing Class I haul road to provide adequate drainage to this headpond from the combination undisturbed disturbed areas. The sediment pond needs to be cleaned and a sediment stake should be installed in the pond to properly identify the height of a 60% sediment load in the pond. How does the applicant propose to monitor the sediment level for this and the other existing ponds in the permit application? A commitment for periodic survey of the sediment level or installation of sediment level markers in the ponds will be required.

Small Area Exemptions

At present there are approximately six small disturbed areas at the Hiawatha Complex that are not mentioned in the Technical Analysis.

Small areas are:

1. Area just below the Middle Fork Sediment Pond.
2. The area just below the Middle Fork Sediment Pond on the opposite side of the road.
3. The area in Middle Fork Canyon adjacent to the drain field used for Timber storage.

4. The area in Middle Fork Canyon used for slag and salt storage.
5. The area presently used for refueling the coal trucks.
6. The area used for scrap metal storage and dynamite magazine. A lower portion of this area has been addressed by the company. The onsite inspection of April 12, 1984 revealed that additional permitting needs to be done to address the topsoil protection and drainage control of the upper portion of the area.

These areas should be addressed in the Permit Application Package and reviewed as part of the current Technical analysis.

ROADS

All Class I haul roads should be permitted as required under UMC 817.151-.156.

Conveyor

The Technical Analysis addresses the conveyor at the King VI area as a proposal and not part of the existing permitting action. It should be known that the conveyor is presently installed and should be addressed as required under UMC 817.180 and .181. The areas at the lower end of the conveyor designated for interim reclamation test plots have not been addressed in the Technical Analysis.

Upper Coal StockPile Pad

Erosion along the inslope of the sediment pond designed to handle drainage for the upper coal stockpile pad should be corrected by the installation of flexible culverting. Additional sediment control is needed in the area located between the downslopes of the stockpile pad and the existing railroad tracks.

King VI

Existing undisturbed diversion culvert is disjointed and in need of repair. According to John Nadolski, Consultant for OSM, the sediment pond for the conveyor in that loadout area should be surveyed. It appeared as though the emergency spillway was higher than the pond embankment.

Ditches

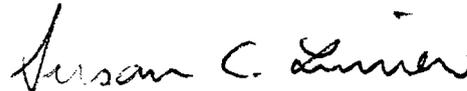
Although all ditches were not observed during this tour, two appeared to be inadequately sized (visual inspection only, no calculations have been reviewed). The road ditch draining to culvert #1 which flows to slurry ponds #4 and 5 and the ditch above the sediment pond at King #6 (near conveyor) appear to be incorrectly constructed or undersized in the design phase. Have

Ms Sarah Branson
April 30, 1984
Page 4

the designs been checked for adequacy in the technical analysis? If so, then this will become an onsite compliance issue that the inspection staff will pursue.

A copy of the Draft TA with additional staff comments is enclosed. Please contact me for further clarification.

Sincerely,



Susan C. Limer
Reclamation Biologist/
Permit Supervisor

SCL/jvb
85850

Enclosure

cc: Jim Smith, DOGM
Rick Summers, DOGM
Dave Darby, DOGM
Shannon Storrud, DOGM
Lynn Kunzler, DOGM
Tom Portle, DOGM
Dave Lof, DOGM
Joe Helfrich, DOGM



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

To Sue
File ACT/007/011
Folder #2

JIM
MAY 01 1984

APR 27 1984

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APR 30 1984

DIVISION OF OIL
GAS & MINING

Mr. Bob Eccli
Senior Engineer
U.S. Fuel Company
Hiawatha, Utah 84527

Dear Mr. Eccli:

During the Office of Surface Mining (OSM) April 12, 1984 site visit to the Hiawatha Mines Complex, the issue of compliance of the existing Middle Fork and South Fork haul roads was brought to our attention. Specifically, the state inspectors cited problems with the existing drainage system allowing for uncontrolled runoff. Compliance with the applicable Utah regulations must be addressed in OSM's technical analysis (TA); however, no information has been provided by the applicant to allow us to proceed with assessment of the compliance of these roads. In order for OSM to complete our analysis, the applicant must provide the following information:

UMC 817.150-.155 Roads

U.S. Fuel must provide as-built plans and specifications for the existing Middle Fork and South Fork haul roads. The information must demonstrate compliance with UMC 817.150-.155, and at a minimum must include: a longitudinal profile and plan showing grade, locations and volumes of cuts and fills and drainage; cross sections showing surfacing, width, crown, and drainage; and a maintenance program.

It is assumed that these plans are available; however, it is understood that if they are not available, it will take U.S. Fuel some time to generate the needed information. In order to maintain the permit schedule, we request that the information be submitted by May 18, 1984. If you have any difficulty in meeting this schedule, please contact this office immediately.

If you have any questions, please contact me or Sarah Bransom at (303) 837-3806.

Sincerely,

Stephen F. Manger
Utah Task Force Leader

cc: Jim Smith, DOGM
Jack Elder, FBD



M E M O R A N D U M

April 25, 1984

TO: Susan C. Linner, Permit Supervisor
FROM: Thomas L. Portle, Reclamation Soils Specialist *TLP*
SUBJECT: OSM Hiawatha TA, ACT/007/011, Folder #2

| <u>LOCATION</u> | <u>COMMENT</u> |
|---------------------|---|
| Page 9 | Typo - "unavailable" not unavoidable. |
| Page 13 line 13 | Scarification and/or ripping should be included in reclamation procedures. |
| Page 13 line 19 | Typo - cessation only 1 "t". |
| Page 13 line 24 | Where are details pertaining to the reclamation of soil borrow areas found - is this bonded for ? |
| Page 14 | Why is OSM used rather than the regulatory authority (RA)? |
| Page 16 line 17 | OSM should not be able to dictate what "standardized" water monitoring program is for Utah mines with or without input from State! No State input in this case! |
| Page 21 line 1 | Based on a Field inspection with OSM, S & I and DOGM a stream of sewage water was pointed out by Mr. David Lof, OGM inspector. This should be taken into account as it enters the input to Slurry Pond 5 and 5A. |
| Page 22 Condition 7 | This is requesting that a sediment structures be used to control drainage from a nearly flat relatively small area upon reclamation. Certainly any additional disturbance associated with any structure would be unwarranted. |

| <u>LOCATION</u> | <u>COMMENT</u> |
|---|--|
| Page 24 bottom | Although the permanent diversion is shown as being rippapped field observations revealed it was not. This should be scrutinized. |
| Page 25 top | It is found to be in compliance. When based on the field tour of April 12, 1984 it is not in compliance. |
| Page 35 lines 8-11 | Utah has made no such agreement or a "new groundwater monitoring policy". |
| Page 35 line 19 | OSM has a condition requiring that U. S. Fuel change their monitoring schedule based on alleged OSM/DOGM guidelines. This should be amended to reflect the true situation. |
| Page 37 - 38 Condition #9 | This is baseline information and must be in hand before a permit is granted! |
| Page 40 Condition #10 | The material requested by this stipulation is baseline information and must be in hand before a permit is granted. |
| Page 41 | Since no future disturbance is proposed at the equipment storage yard the location of a topsoil storage site appears irrelevant. This stipulation should be dropped. |
| Page 56 UMC 784.19 UMC 817.71 - .74 | What will be the fate of the large volume of contaminated materials which is found on the operational pads. This material should be scraped from the surface and properly disposed of. |



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

J. Smith
File
ACT/007/011
Folder 2
cc: Sue
Dave D.
Rick
Summers

APR 24 1984

RECEIVED

Mr. Mark Page
Area Engineer
Department of Natural Resources and Energy
Division of Water Rights
74 West Main Street
Price, Utah 84501

JIM
MAY 15 1984

APR 27 1984
DIVISION OF OIL
& MINING

Dear Mr. Page:

This letter is a follow-up to our site visit to the Hiawatha Mines Complex on April 12, 1984 with Mr. Louis Chadwick of your office. As you know, the Office of Surface Mining (OSM) is currently evaluating the U.S. Fuel Company's plans to retain the current water storage and supply system upon completion of mining. The water supply system is proposed to be used by the town of Hiawatha. The system includes a surface impoundment on the North Fork of Miller Creek, an underground reservoir and bulkheads, and water discharge structures on the Middle Fork of Miller Creek and on Cedar Creek. We discussed with Mr. Chadwick the need for your office to provide OSM with a response to the following questions:

1. What approvals are required to transfer the water rights from the company to the town of Hiawatha upon completion of mining? What is the appropriate timing of such approvals, i.e. should the transfer occur now or at the termination of mining?
2. What involvement does the Division have in the inspection of the North Fork diversion and underground impoundment, both currently and after mining ceases? If the Division of Water Rights is not involved, please identify the appropriate state office having jurisdiction over inspection of these structures.

This office requests your review of the company's proposal in light of these questions. Please provide us with any additional information that you feel is warranted concerning the Division's approval and jurisdiction over the company's proposal. In order to maintain our schedule, we would appreciate your response by May 4, 1984.

If you have any questions, please feel free to contact me or Sarah Bransom at (303) 837-3806.

Sincerely,

A handwritten signature in cursive script, appearing to read "Stephen F. Manger".

Stephen F. Manger
Utah Task Force Leader

cc: Dr. Dianne Nielson, DOGM



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 • 801-538-6771

April 24, 1984

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

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Alkema:

Enclosed please find one (1) copy of the above referenced Mining and Reclamation Plan (MRP) Addendum. This Addendum is being forwarded for review by the Division of Environmental Health of your office.

As you will recall, the MOU between our Divisions' calls for the following:

B. Mine Plan Review.

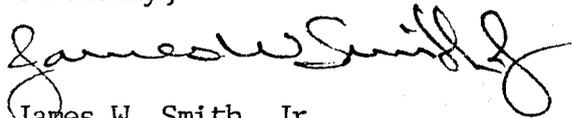
1. Upon submission of a mining and reclamation plan to DOGM, the DOGM, shall, in consultation with DOH, review the operator's list of licenses, permits or approvals to determine whether or not approvals from DOH have been issued.
2. If any permits or approvals from the DOH have not been issued, the DOGM will submit to the DOH those parts of the permit application containing matters within the DOH's jurisdiction or interest for review and response and inform the operator in writing that he must contact DOH for the appropriate permits and approvals.
3. If additional information is required by DOH for any permit or approval, the DOH shall contact the operator for such information. Copies of any such requests and the operator's response to such request shall be forwarded by DOH to DOGM.

Mr. Kenneth Alkema
ACT/007/011
April 24, 1984
Page Two

4. Within two weeks of receipt by DOGM of the mining operator's submission and any additional information requested, each DOH bureau shall contact the DOGM with preliminary written notification of the status of any outstanding permits or approvals. If DOH determines to reject the operator's permit application or has any major problems with the operator's mine plan, the DOGM may convene a conference between the state agencies and the operator as soon as possible.
5. The DOH will make every effort to have their response to the mine plan and any other DOH permits and approvals finally completed within 60 days of the DOH receipt for the operator's complete application for DOH permits and approvals.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan C. Limer of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/LK: jvb
00470

Enclosure



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 • 801-533-5774

April 24, 1984

Mr. Douglas F. Day, Director
Division of Wildlife Resources
1596 West North Temple
Salt Lake City, Utah 84116

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Day:

Enclosed please find one (1) copy of the Mining and Reclamation Plan Addendum (MRPA) referenced above. This MRPA is forwarded for review by the Division of Wildlife Resources (DWR) in accordance with our Divisions' Memorandum of Understanding (MOU).

As you may recall, the MOU between our Divisions' calls for the following:

B. Mine Plan Review

1. Upon submission of a mining and reclamation plan to DOGM, DOGM will notify the DWR in writing of the need for consultation in evaluation of the plan with respect to fish and wildlife resources as required by MC 786.17(a)(2). DOGM will provide a copy of such plan to DWR when available.
2. The DWR will respond to DOGM in writing within 60 days of receipt of the plan with an evaluation of the adequacy or inadequacy of the fish and wildlife plan submitted by the operator to avoid, ameliorate or mitigate impacts of the proposed operation on wildlife resources.



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

April 24, 1984

Mr. Dee C. Hansen
State Engineer
Division of Water Rights
1636 West North Temple
Salt Lake City, Utah 84116

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Hansen:

Enclosed please find one (1) copy of the above referenced Mining and Reclamation Plan (MRP) Addendum. This Addendum is being forwarded for review by the Dam Safety and Water Rights sections of your office in accordance with our Divisions' Memorandum of Understanding (MOU).

As you will recall, the MOU between our Divisions' calls for the following for the Dam Safety Section:

B. Mine Plan Review:

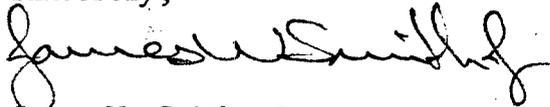
1. Upon submission of a mining and reclamation plan to DOGM, the DOGM will forward a copy of the mining and reclamation plan to Dam Safety. If information additional to that contained in the operator's submission is required, Dam Safety is responsible for contacting the operator to obtain such information. Copies of such requests and also copies of the company's submittal in response to the request will be submitted to DOGM.
2. Within 30 days of receipt of the mining and reclamation plan, Dam Safety shall contact DOGM with their final response to the agency's proposed action on the operator's application.

Mr. Dee C. Hansen
ACT/007/011
April 24, 1984
Page Two

3. If Dam Safety proposes to reject the plan for failure to meet water retention safety standards, the DOGM will call a conference between the state and the operator at the earliest possible date.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact myself or Susan C. Linner of my staff.

Sincerely,



James W. Smith, Jr.
Administrator
Mineral Resource Development
and Reclamation Program

JWS/LK:jvb
00460

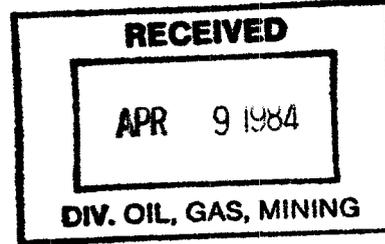
Enclosure



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

To Sue
File ACT/007/011
Folder #2

Mr. Errol Gardiner
Vice President
U.S. Fuel Company
Hiawatha, Utah 84527



APR 6 1984

JIM
APR 19 1984

Dear Mr. Gardiner:

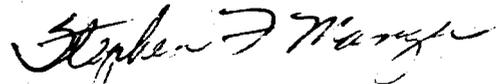
The Office of Surface Mining (OSM) has identified several problems with the information the U.S. Fuel Company has submitted regarding reclamation of disturbed areas. In addition, OSM is attempting to eliminate as many stipulations as possible by requesting information prior to the finalization of the technical analysis (TA). These problems have been discussed with Mr. Eccli and representatives from Ford, Bacon and Davis. Specifically, the following discrepancies and problems need to be resolved immediately so that OSM may proceed with the technical analysis of the permit application package (PAP):

1. Exhibit IX-3B does not show the location of substitute topsoil area "C". In order to confirm its relative location in the Middle Fork pad area, this exhibit must be updated.
2. The information provided for the South Fork area (p. 55A 4/6/84 DOA response) indicates that approximately 7.65 acres are currently being utilized for the loadout and facility area. A source of substitute topsoil material (approximately 5,000 cubic yards) has not been identified to reclaim this area with a minimum of six inches of cover. The applicant must provide for this area a set of calculations supported by appropriate exhibits which identifies the source(s) of topsoil (areal extent), the volume of available topsoil material, and the area to be reclaimed (topsoiled).
3. OSM has planimetered Exhibits III-1b and III-3 to calculate the acreage of disturbed area included in the preparation plant facility area. OSM estimates a total of 97 acres are included in this area. The applicant states on page 40A (4/6/84 Determination of Adequacy response) that 91.14 acres are disturbed in this area. OSM will assume a disturbed area of 97 acres unless the applicant provides documentation that a different figure should be used.
4. Revised Exhibit III-3 (March 15, 1984) still indicates that the applicant proposes to reclaim Slurry Ponds 2 and 3. OSM will assume that the applicant is planning to reclaim these areas unless the applicant provides a revised exhibit indicating that these areas are not to be reclaimed.

5. The applicant states on page 5, Attachment 3 of the 3/16/84 DOA response that the field trial study will be placed on the worst-case materials. The applicant must identify a specific location (i.e. provide appropriate exhibit) for the slurry pond area field trial study.
6. The design and construction of power transmission and distribution lines have been reviewed by the U.S. Fish and Wildlife Service and have been found to be acceptable to protect raptors (letter dated March 5, 1984 from Utah Division of Oil, Gas and Mining). However, the applicant has not committed to designing future power transmission and distribution lines in a manner that protects raptors. The applicant must provide a commitment to follow and incorporate the guidelines set forth in Environmental Criteria for Electric Transmission Systems (USDI, USDA 1970) and Rural Electric Administration Bulletin 61-10, Powerline Contacts by Eagles and Other Large Birds, in all future design and construction activities involving electric power transmission and distribution lines.
7. The applicant states on page 60 of the January 1984 DOA response that sedimentation ponds for the upper coal storage area and Slurry Ponds 1, 3, 4, and 5 will be left in place until the end of regrading operations. This is not in compliance with UMC 817.46(u) which requires that sedimentation ponds not be removed until revegetation requirements are met. U.S. Fuel must commit to leaving these ponds in place and active through the regrading and revegetation period.

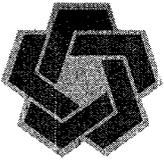
Clarification of these items must be provided no later than April 13, 1984. If you have any questions, please contact me or Sarah Bransom at (303) 837-3806.

Sincerely,



Stephen F. Manger
Utah Task Force Leader

cc: Dr. Nielson, DOGM
Jack Elder, FBD



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Wildlife Resources

1596 West North Temple • Salt Lake City, UT 84116 • 801-533-9333

File ACT/007/011
Fold #2 copy TO ~~SMR~~ Lynn

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Douglas F. Day, Division Director

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APR 17 1984

DIVISION OF OIL
GAS & MINING

April 4, 1984

Dr. Dianne R. Nielson, Director
Utah Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

JIM
APR 19 1984

Dear Dianne:

We have evaluated U. S. Fuel Company's Hiawatha Complex MRP addendum of February 24, 1984 and March 15, 1984.

The Division has no further specific comments or recommendations. Generally speaking, the company adequately recognizes wildlife values associated with their project and proposes a sufficiently detailed and specific mitigation plan.

Thank you for an opportunity to review the MRP and provide comment.

Sincerely,

Douglas F. Day
Director

DFD:db

Hiawatha Draft TA

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APPENDIX A: CUMULATIVE HYDROLOGIC IMPACT SUMMARY

TECHNICAL ANALYSIS

I - INTRODUCTION

United States Fuel Company (U.S. Fuel) , a wholly owned subsidiary of Sharon Steel Corporation, submitted a permit application to Utah Division of Oil, Gas, and Mining (UDOGM) and the Office of Surface Mining (OSM) on 23 March 1981 in order to bring its Hiawatha Mines Complex into compliance with the permanent Utah State Coal Program for the next 5 years of mining. This original submittal, in conjunction with the Apparent Completeness Review (ACR) response (14 June 1983) and applicant responses to Determinations of Adequacy (DOAs) (7 November 1982, 9 January 1983, 13 February 1984, 16 March 1984) comprise the permit application package (PAP) for the Hiawatha Mines Complex. The Hiawatha Mines Complex consists of the King 4, 5, and 6 Mines and coal handling and processing facilities adjacent to the town of Hiawatha. The following technical analysis (TA) evaluates this permit application (UT0006-24).

In addition to providing the application requirements for a Utah coal mining permit, the PAP includes the information required for the Secretary of the Interior to make a decision on U.S. Fuel's mining plan for its Hiawatha Mines Complex. The proposed Surface Mining Control and Reclamation Act (SMCRA) Permit Area and the proposed area of mining plan approval (which is identical to the resource recovery and protection plan boundary) are shown in Figure 1. The 5-year progressions of mining for the King 4, 5, and 6 Mines within the proposed SMCRA Permit Area are shown in Figures 2 through 7. The proposed life of mine boundaries for the Hiawatha Mines Complex (see Exhibits II-1 and II-2 of the PAP) are shown in Figure 1. This permitting action does not include redevelopment of the Mohrland area (King 7 and 8) to the south of the SMCRA Permit Area or construction of a new unit train loadout facility. Unless otherwise indicated, all references in this TA are to the Utah Regulations Pertaining to the Surface Effects of Underground Coal-Mining Activities (UMC 700 et seq. and UMC 800 et seq.).

The Hiawatha complex is located on the east side of the Wasatch

Plateau in central Utah, about 15 miles southwest of Price, in Carbon and Emery counties (Figure 8). The life of mine area encompasses 19,211 acres and is located within: T.15S., R.7E., SLM, sections 12, 24, 25, 36; T.15S., R.8E., SLM, sections 17-21, 26-35; T.16S., R.7E., SLM, sections 1, 12, 13; and T.16S., R.8E., SLM, sections 3-11, 15-22. Of this area, approximately 5,726 acres (approximately 30 percent) of coal are held by U.S. Fuel in the form of leases with the Federal government. The leases involved are: SL-025431 (2,370.26 acres), SL-069985 (2,356.09 acres), and the combined leases U-058261 and U-026583 (1,000 acres). Most of the remainder of the coal in the life of mine area (9,833 acres) is owned by U.S. Fuel. The applicant does not have rights to approximately 3,650 acres of coal within the life of mine area.

The SMCRA permit area includes 12,660 acres in T.15S., R.7E., SLM, sections 12, 24, 25, 36; T.15S., R.8E., SLM, sections 17-21, 26-35; T.16S., R.8E., SLM, sections 3-6, 8, 9,. Of these, 2,543 acres involve Federal coal and comprise the mining plan area. All of the Federal leases are involved in the mining plan area, although they also include areas outside of the current SMCRA permit area. In addition to the lands for which it already has a right to mine, the applicant has expressed an interest in three Federal coal lease tracts adjacent to the permit area and has applied for a short-term by-pass coal lease on another parcel. These areas, and the Mohrland area, however, are not included in this application.

The Hiawatha Mines Complex is a consolidation of the original King, Hiawatha, Blackhawk, and Mohrland mines, which began mining coal in the late 1890's. U.S. Fuel was organized in 1915 and began operation in 1916 when it took over the properties of the Consolidated Fuel Company, Castle Valley Coal Company, and Black Hawk Coal Company, all of which are located within the current mine plan area boundary. The current five-year permit application applies to three underground mines (King 4, 5, and 6) which are existing operations. Mining will remove coal from the A (King 4, 5, and 6) B (King 4 and and 5), and Hiawatha (King 6) seams of the Blackhawk formation.

Approval of both the SMCRA permit by the State of Utah and the

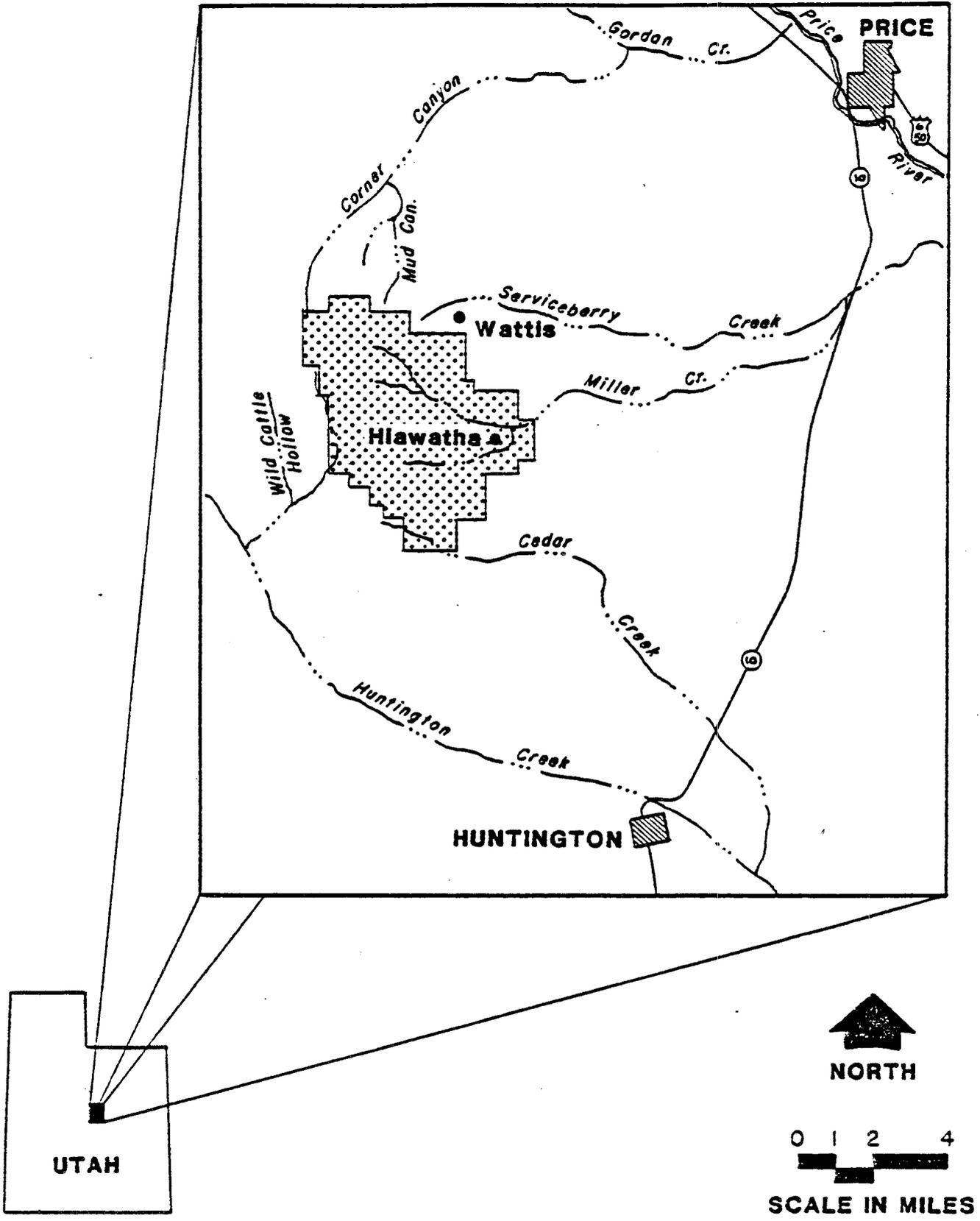


Figure 8
AREA MAP
HIAWATHA MINES COMPLEX

mining plan by OSM would provide for mining at the Hiawatha Mines Complex through the year 1989 at a maximum rate of 1.759 million tons per year. U.S. Fuel currently ships all coal from the Hiawatha complex by rail to an electric generation plant in Nevada and military facilities in the northwestern United States. U.S. Fuel currently employs approximately 281 people at the Hiawatha Mines Complex. Employment would increase to 500 during the period of maximum production.

The environmental assessment (EA) on the mining plan which accompanies this TA was prepared pursuant to the National Environmental Policy Act (NEPA). The EA and TA frequently reference one another.

II - DESCRIPTION OF THE EXISTING ENVIRONMENT

Topography and Geology

The Hiawatha complex is located on the east side of the Wasatch Plateau, at elevations ranging from 6750 to 9600 feet, in an area characterized by steep canyons and high plateaus. Miller and Cedar Creeks drain the mine plan area.

The geologic formations of the mining plan area are Cretaceous, Tertiary, and younger in age. The generally lenticular coal seams of interest are contained within the Cretaceous Blackhawk formation. The beds are relatively flat with a slight dip to the southwest. The strata are generally undisturbed in the vicinity of Mohrland but become disturbed in the western portion of the mining plan area where the Pleasant Valley fault zone is present. This fault zone trends north-south through the head of Bear Canyon, with displacements of up to 250 feet, and marks the western limit of past U.S. Fuel mining.

Climate and Air Quality

The climate of the Hiawatha Mines Complex area is typical of canyon areas of central Utah. Summer temperatures range from 40° to 95° F while winter temperatures average around 25° F. The average annual precipitation is 12 inches. Winds in the mine plan area are affected by the area's topography, although general wind directions over a broader region are from the north-northeast in the winter and

the south-southwest in the summer.

Central Utah is primarily rural with some light or dispersed industrial activity. Existing air quality is generally excellent, although high total suspended particular values result from travel on unpaved roads. Carbon monoxide, ozone, lead, and hydrocarbons are not monitored in the region, but it is expected that they are within the National Ambient Air Quality Standards (NAAQS) (BLM 1983).

Hydrology

The area is divided into hydrologic units by structural elements such as the Book Cliffs, San Rafael Swell and Wasatch Plateau which, in turn, are modified by subsidiary folds, faults, intrusions and, in upper formations, deeply cut drainage systems. The deep drainage system in some areas drains the exposed bedrock. The upper water-bearing beds are discontinuous and partially void of water near cliff faces. The upper formations of the Wasatch Plateau have been reported as the water bearing formations. Field surveys show that most of the springs and seeps outcrop in the Price River, Star Point, and Castlegate Sandstone formations. The Flagstaff Limestone and North Horn Formation yield water to wells for municipal use in Price, Utah. The Ferron Sandstone Formation has yielded drinking water to Emery and water to underground mine workings.

Ground water in the region around the Hiawatha Mines Complex is recharged principally by direct infiltration of precipitation in the higher plateau, infiltration from perennial streams that flow into Mancos Shale lowlands, and, to a limited extent, by infiltration in outcrops.

Contact with the Bear Canyon Fault at several points in old mine workings has resulted in large flows of water and accounts for most of the mine water presently discharged from the Old Mohrland portal. One water-producing contact with the fault which is accessible in the King 4 Mine is presently used for fire protection and dust suppression in that mine. Generally, mine water flows southerly, away from active mining, and is discharged by gravity flow at the old Mohrland portal. Some of this water is diverted for culinary and industrial use at

Hiawatha, and the remainder flows into Cedar Creek. No other mine discharge or dewatering activities are anticipated by U.S. Fuel.

Water Supply

Water in the mine is of fairly high quality. Mine water is used by U.S. Fuel for fire prevention and dust suppression in King 4 and by the town of Hiawatha for culinary purposes. These uses are covered by water rights claimed by U.S. Fuel for 4758 gallons per minute (gpm) (3746 gpm in surface water rights and 1012 in ground water rights). Mine water discharge from the old Mohrland portal is regulated under National Pollutant Discharge Elimination System (NPDES) permit no. UT-0023094. Water supply information on the area surrounding the Hiawatha Mines Complex is not currently available.

Water Quality

Water in the vicinity of the Hiawatha complex is felt to be of high quality. However, the water quality data provided in Table VII-6 (original submittal) infrequently slightly exceed drinking water standards for TDS and oil and grease.

Soils

Within the proposed permit area the dominant soils at elevations of 7000 to 8500 feet have cool temperature regimes and are moist except for significant periods during the growing season. Slopes generally range from 30 to 60 percent and at times exceed 70 percent. Soils within the proposed permit area generally are cobbly loam in texture and are derived from a variety of sedimentary rock. Some have dark colored, organically rich surface horizons. The lighter colored soils have significant accumulations of carbonates in the subsoil.

Below 7000 feet, the soils have moderate temperature regimes and are usually dry during the growing season. Slopes are generally less than 30 percent. Most of these soils are loam to cobbly loam in texture and have developed from alluvium and mass wasting derived from a variety of sedimentary rocks. Many of these soils have accumulations of carbonates in the subsoil. Vegetative production in and adjacent to the Hiawatha Mines Complex is limited by the lack of available moisture during the growing season. Natural sediment production is high.

Because of the age of the Hiawatha Mines Complex, very little topsoil has been salvaged for reclamation purposes. Instead, soil will be borrowed from areas below 7000 feet in elevation for reclamation at the portal areas above 8000 feet. The borrow areas will yield sufficient material to reclaim previously disturbed areas as well as the borrow areas.

Vegetation

The U.S. Fuel SMCRA Permit Area includes about 12,660 acres and incorporates a large diversity of elevation, topography, aspect, temperature, and moisture conditions. As a result, a large number of plant community types have developed. Ten vegetation types have been identified and mapped within the permit area. The ten types, ranked in order of approximate decreasing abundance by percent composition are: (1) mixed conifer forest (41.1 percent); (2) pinyon-juniper woodland (15.4 percent); (3) mixed conifer-aspen forest (13.9 percent); (4) mountain brush (11.8 percent); (5) high elevation sagebrush-grassland (7.2 percent); (6) grassland (5.5 percent); (7) sagebrush (1.8 percent); (8) aspen (1.8 percent); (9) riparian woodlands (1.4 percent); and (10) barren land (0.1 percent). As these characteristics indicate, the basic vegetation nature of the permit area is one of forests and shrublands. Conifer, mixed conifer-aspen, and aspen stands occur at high and intermediate elevations on northern exposures, while pinyon-juniper, sagebrush, and mountain brush stands generally occur at lower mountain and foothill elevations with southern or western exposures. Riparian woodlands are confined to narrow corridors flanking major permit area streams, such as Miller and Cedar Creek and their tributaries.

Of the 12,660 acres in the total permit area, approximately 332 acres of vegetation has been lost or disturbed by past, as well as current, mining activities. Past mining activities were concentrated in the stream valleys and lower mountain slopes. Consequently, only five vegetation types were affected: mixed conifer, mountain brush; sage brush; pinyon-juniper woodlands, and riparian woodlands. Future reclamation activities will disturb an additional 24 acres of pinyon-juniper woodlands. There are no known occurrences of threatened

or endangered plant species or designated critical habitats for such species in the permit area.

Wildlife and Fisheries

The mine permit area occurs in the Transition and Canadian life zones and provides habitat for approximately 234 species of wildlife, including 6 amphibian species, 18 reptilian species, 139 bird species, and 71 mammal species.

Miller Creek and Cedar Creek drainages are the two major perennial stream systems present. However, neither drainage supports fish populations. Cedar Creek supports an aquatic invertebrate community and it is assumed that Miller Creek does also although there was no data included in the PAP to confirm this.

The permit area contains approximately 8,360 acres of critical deer and elk winter range, 3,335 acres of high-priority deer and elk summer range, and 1,017 acres of high-priority elk winter range. Past and current mining activities have affected the critical and high-priority deer and elk winter ranges.

Springs and seeps are scattered throughout the area and provide an important habitat feature for many wildlife species. Riparian habitats are restricted to the narrow floodplains of major streams like Miller and Cedar Creeks. Riparian woodlands constitute about 1.4 percent of the permit area.

The golden eagle, great horned owl, and sparrow hawk are probably the most common raptors in the permit area. No known active nest or roost sites are present. The bald eagle and American peregrine falcon may occasionally wander through the area. There are no known occurrences of threatened or endangered species or designated critical habitats present in the permit area.

Land Use

Land uses in the permit area include mining, logging, livestock grazing, wildlife habitat, watershed, oil and gas exploration, and recreation. Most of these uses have existed since early in the 20th century and are expected to be maintained without disruption by

continued mining at the Hiawatha complex.

Cultural Resources

The cultural resources of the Hiawatha Mines Complex impact areas have been partially inventoried. To date, no historic or archaeological sites have been recorded within the permit area. Prior to 31 December 1984, the applicant has agreed to provide an historical background study of the town of Hiawatha and to complete a pedestrian inventory of proposed direct impact areas associated with the processing plant, waste disposal sites, and substitute topsoil locations. The applicant, in consultation with OSM and the Utah State Historic Preservation Office (SHPO), has proposed measures to ensure that no adverse effects to any significant cultural sites which may be located within the permit area will occur as a result of mining operations.

Transportation

The permit area is accessible from Utah Highway 122 and existing paved, all weather haul roads up the Middle Fork and the Left Fork of Miller Creek. The town of Hiawatha is the terminal point of Utah Highway 122 and the lower portions of the haul roads also receive use by the public. The haul roads also provide access to water diversion, storage and service facilities for potable water for the town of Hiawatha. Coal which is mined is hauled by truck or transported by conveyor to the processing plant site at the town of Hiawatha. There the coal is loaded on rail cars for shipment over the Utah railroad system.

Socioeconomics

The Hiawatha Mines Complex straddles the Carbon-Emery County line in central Utah in the midst of an area commonly referred to as "Coal Country" or "Castle Country". Coal mining has occurred in the vicinity of the Hiawatha complex since the late 1890's. Today, the entire region is linked to mining and energy resource development. The 1980 population of the two counties was about 33,650, a 62 percent increase over 1970. Most of this growth was a result of the renewed energy development. In 1983, nearly one-third of the total employment in the

two counties was involved in the mining, transportation and utilities sectors.

The nearby town of Hiawatha, owned by U.S. Fuel, developed during World War I. At one time, the town's population reached nearly 1,500, but in the mid-1950's and 1960's the population declined to about 150, in response to the diminished national importance of coal as an energy source.

Residency information for the current workforce reveals that 24 percent reside in Hiawatha while 46 percent live in the Price area. Of the remaining 30 percent, 18 percent live in other communities in Carbon and Emery Counties, with the place of residence not known for 12 percent of the workforce.

Numerous community problems could be intensified with the mining expansion:

- . North Sanpete, Carbon, and Emery Counties' school districts are all at or exceeding the capacity of permanent school facilities;
- . Housing is almost unavoidable in much of the region;
- . The water supply, treatment, and storage systems, and/or the sewage treatment systems are at, or exceeding, capacity in several communities;
- . Insufficient medical facilities currently exist in northern Sanpete County.

At the present time, several local plans are being considered to address these problems.

III - SUMMARY OF THE OPERATIONS AND RECLAMATION PLAN

Because of poor market conditions, only the King 4 Mine is currently producing coal. U.S. Fuel has utilized the room and pillar method with both full and partial extraction, depending on roof characteristics. Longwall mining is proposed for part of King 5.

King 4 and 5 Mines share the same surface facilities in the Middle Fork of Miller Creek and were opened in 1974 and 1978, respectively.

From the loading facility, coal is hauled 3 miles to the processing plant in Hiawatha. The access corridor from the town of Hiawatha to the Middle Fork facilities contains the haul road, a powerline and a proposed overland conveyor system. The proposed conveyor will be constructed alongside the haulroad from the truckloading facility to the processing plant and is not part of this permitting action.

Facilities for the King 6 Mine are located in the South Fork of Miller Creek mine yard. Coal is conveyed approximately 2400 feet from the mine mouth down South Fork canyon to a coal stockpile where it is loaded onto trucks and hauled 3 miles to the processing plant.

The processing plant, built in 1938, is located immediately north of the town of Hiawatha. It has the capacity to wash, size, and thermal dry 400 tons of coal per hour. Slurry discharged from the plant is channeled through a froth flotation resin recovery process. The slurry is then discharged into impoundments constructed of coal washing refuse material where it is stored, allowed to dry, and eventually reclaimed for shipment to coal markets.

With the exception of mine roads, all areas affected by surface operations will be backfilled, stabilized and graded within two years following the cessation of mining. Diversion ditches, berms, and sediment ponds will be maintained until that time. Some disturbed areas will be returned to the approximate original contour while others (particularly yard areas in steep narrow canyons) will be left as currently graded to prevent erosion, assist plant growth, and provide better access for wildlife and livestock. Cut and fill terraces will be used where flatter slopes are not possible. Water lines from the King 3 and old Mohrland portals will be left in place to supply the town of Hiawatha, although both of these portals will be sealed. The Hiawatha No. 2 portal will not be sealed in order to allow access to valves, gauges, and a chlorination unit within the portal. Revegetation will follow backfilling, grading, and replacement of topsoil using seed mixes recommended by Utah Division of Wildlife Resources. Seeding will be accomplished by hydroseeding, drilling, and broadcast/raking and mulch will be used where necessary. Wildlife habitat will be the primary postmining landuse with some cattle grazing

near the town of Hiawatha.

The applicant wishes to leave most roads following mining. This will require the dedication of these roads to the town of Hiawatha and a commitment for continued maintenance after mining.

IV - LEGAL, FINANCIAL, AND COMPLIANCE INFORMATION UMC 782.13, 782.14, 782.15, 782.16, 782.17, 782.18, 782.19, AND 782.21.

UMC 782.13 IDENTIFICATION OF INTERESTS

Most information required by this rule is provided in the original submittal (Volume I, Chapter II, pages II-2 to II-5) and the DOA response (Volume I, Chapter II). The applicant is in compliance with UMC 782.13.

UMC 782.14 COMPLIANCE INFORMATION

Information required by this rule is provided in the original submittal (Volume I, Chapter II, pages II-6 to II-7). The applicant is in compliance with UMC 782.14.

UMC 782.15 RIGHT OF ENTRY AND OPERATION INFORMATION

Information required by this rule is provided in the original submittal (Volume Exhibits I, Chapter II, page II-8) and the DOA response (Volume I, Chapter II). The applicant is in compliance with UMC 782.15.

UMC 782.16 RELATIONSHIP TO AREAS DESIGNATED UNSUITABLE FOR MINING

Information required by this rule is provided in the original submittal (Volume I, Chapter II, page II-9) and the DOA response (Volume I, Chapter II). The applicant is in compliance with UMC 782.16.

UMC 782.17 PERMIT TERM INFORMATION

Information on permit term is provided in the original submittal (Volume I, Chapter II, page II-10) and the DOA response (Volume I, Chapter II). The applicant is in compliance with UMC 782.17.

UMC 782.18 PERSONAL INJURY AND PROPERTY DAMAGE INSURANCE INFORMATION

The applicant has provided evidence of insurance coverage which

complies with the requirements of UMC 806.14 in its DOA response (Volume I, Chapter II, page 3 and 4).

UMC 782.19 IDENTIFICATION OF OTHER LICENSES AND PERMITS

The applicant has provided information on its other licenses and permits in the original submittal (Volume I, Chapter II, page II-13) and the DOA response (Volume I, Chapter II). The applicant is in compliance with UMC 782.19.

UMC 782.20 IDENTIFICATION OF LOCATION OF PUBLIC OFFICE FOR FILING OF APPLICATION

The public offices where the application has been filed are listed in the original submittal (Volume I, Chapter II, page II-14). The applicant is in compliance with UMC 782.20.

UMC 782.21 NEWSPAPER ADVERTISEMENT AND PROOF OF PUBLICATION

Information on the required newspaper advertisement and proof of publication are provided in the original submittal (Volume I, Chapter II, page II-15) and the DOA response. The applicant is in compliance with UMC 782.21.

V - LAND USE - UMC 783.22, 784.15, AND 817.133

Information on land use in the proposed permit area is located in the original submittal (Volume I, Chapter IV), the July 1983 ACR response (Chapter IV), and the DOA response (Volume I, page 85). The applicant is in compliance with UMC 783.22.

The applicant has not, however, provided the information required under UMC 784.15 and 817.133(c) for alternative land uses or for the reclamation of roads as required by UMC 87.156, 817.166, and 817.176. The applicant must comply with Condition No. 1.

Condition No. 1

If the applicant wishes to leave the roads in the permit area following the cessation of mining, it must provide the alternative land use information required by UMC 784.15 and 817.133(c) within 90 days of permit issuance.

If a change in land use is not requested and the applicant will reclaim the roads, the information required by UMC 817.156, 817.166, and 817.176 must be provided within 90 days of permit issuance. Such information must include a plan and agreement for the maintenance of all diversions, bulkheads, and pipe works located within the North, Middle, and South Fork of Miller Creek. In addition, if a change in land use is not requested, U.S. Fuel must also provide the following to the regulatory authority within 60 days of permit issuance:

- . A revegetation plan for all haul roads in accordance with the requirements of UMC 817.111 to 817.117;
- . A plan for reclaiming and revegetating all haul roads so that restoration of wildlife habitats will be achieved;
- . Complete data on proposed backfilling, grading and compaction for the reclamation and restoration of existing haul and access roads as required by UMC 784.13(b)(3), 817.12, 817.73, 817.74, and 817.101. U.S. Fuel shall provide a commitment to reclaim and restore to a condition resembling the original terrain, all areas now occupied by haul and access roads immediately following the cessation of mining operations. The commitment shall contain complete data on the proposed final configuration of the areas to be restored and those which are disturbed during the restoration procedure. Data shall include final topographic contour maps, cross sections of restored areas, topsoiling requirements, drainage modifications, and details of revegetation procedures as required by UMC 817.156, 817.166, and 817.176.

VI - CULTURAL AND HISTORIC RESOURCES - UMC 761.11(a)(3), 783.12(b) and 784.17

Cultural and historical resources information is presented in Volume I, Chapter V, of the original submittal, in the ACR response and the January and February 1984 DOA responses. In addition, OSM archaeologist Foster Kirby has had several telephone communications with the applicant concerning cultural resources compliance.

At present, no archaeological or historic sites are known to exist

within proposed direct impact (ground surface disturbance) areas included under this permit. However, the applicant has yet to complete the following studies which are necessary to assess the effect of the proposed mining on the cultural environment:

- . Historical background survey of the town of Hiawatha and archaeological assessment of the processing plant and waste disposal sites;
- . Cultural resources inventory of substitute topsoil locations (Exhibit VII - 4A);
- . Additional cultural resources studies as may be determined necessary in the future by OSM, UDOGM, and/or the Utah SHPO to assess the effects of subsidence on cultural sites in the areas over the underground workings.

The applicant has agreed to complete the first two studies by 31 December 1984. The subsidence studies will be conducted as the need arises. On the basis of the information submitted by the applicant, and the stipulations suggested, OSM will request SHPO concurrence with a Finding of No Adverse Effect (See Section 6.3 of the FSD). When this concurrence is received, the proposed operation will be in compliance with the requirements of UMC 761.11(a)(3), 783.12(b) and 784.17. The following conditions are included as requirements of this permitting action.

Condition No. 2

Prior to initiating any ground surface disturbance within 100 feet of an archaeological site, the operator shall ensure, in consultation with OSM and the Utah SHPO, that the site is properly evaluated in terms of National Register of Historic Places (NRHP) eligibility criteria. Where a significant site will be affected by mining, the applicant will consult with OSM and the SHPO to develop and implement appropriate impact mitigation measures according to a mutually agreed upon schedule.

Condition No. 3

If any previously unidentified historic or archaeological site is discovered during mining operations, the operator shall cease disturbance in the vicinity of the site and shall notify the regulatory authority. The operator shall further ensure that the site is properly evaluated in terms of NRHP eligibility criteria. If a resource is determined to be eligible for listing on the NRHP, the operator shall consult with and obtain the approval of the regulatory authority concerning the development and implementation of appropriate impact mitigation measures.

VII - GEOLOGY - UMC 783.13 AND 783.14

The description of geology can be found in the PAP in Volume II, Chapter VI, and in the volume containing the 1983 ACR Response, Chapter VI. The description of geology provided in the previously mentioned volumes of the PAP defines the geologic strata down to the lowest aquifer that may be affected by mining (i.e. the Star Point Sandstone). In addition, the primary geologic structure in the area, the Bear Canyon Fault, is also thoroughly discussed. The description of geology is sufficient to support the description of ground water resources in UMC 783.15 (see Chapter IX). Therefore, the PAP is in compliance with UMC 783.13 and 783.14 concerning the geology in the vicinity of the Hiawatha Mines Complex.

VIII - HYDROLOGIC BALANCE: SURFACE WATER - UMC 783.16, 784.16, AND 784.22

783.16 Surface Water Information

Baseline surface water information is provided in the original submittal (Volume II, Chapter VII pages VII-9 through VII-16) and the ACR and DOA responses. This information has been determined to be complete.

Completeness was evaluated with regard to sections UMC 783.16 and 783.24(g) (Maps: Cross-sections, Maps, and Plans). Compliance was determined as it relates to the technical adequacy of surface water sections UMC 817.52 (Hydrologic Balance: Surface and Ground Water Monitoring) and 817.54 (Hydrologic Balance: Water Rights and

Replacement).

Surface water monitoring data have been collected since June 1978 for seven stations. The applicant expanded the surface water monitoring network to include an additional six stations. The applicant committed to making these six additional stations become a permanent part of the surface water monitoring program in the November 1983 DOA response.

According to their existing surface water monitoring program, water quantity and quality are monitored once a month when accessible. Water quality is sampled under two analytical schedules: a comprehensive analytical schedule for the month of August (see Table VII-7 Volume II) and an abbreviated analytical schedule for all other months (see Table VII-3 Volume II).

In addition to the surface water monitoring program, the Hiawatha Mines Complex has eight sedimentation ponds, three mine water discharge points, and a discharge for the town's excess water all under the NPDES monitoring system.

OSM has standardized the surface water monitoring program for Utah mines and U.S. Fuel was required to accept this program in a letter from OSM dated 13 February 1984 (see permit Condition No. 4). The surface water monitoring program includes monthly monitoring during the period from April through August according to an abbreviated analytical schedule (i.e. sodium, calcium, magnesium, potassium, sulfate, bicarbonate, carbonate, chloride, total dissolved solids, total suspended solids, pH, field specific electrical conductance, field temperature, and stream flow). Twice a year (snowmelt and low flow) the full scale of water quality parameters (according to UDOGM guidelines) will be analyzed.

U.S. Fuel rejected OSM's program and proposed a modification to their surface water monitoring program (DOA response of 16 March 1984). In that proposal, U.S. Fuel requested reduction of the current monthly monitoring to quarterly monitoring. U.S. Fuel argues that these changes are justified because there have been no significant changes or variations in the monitoring results and that the major water quality

problem in the basin is salt production rather than heavy metals.

OSM agrees that dissolved salts and suspended sediment are major water quality concerns. In the Cumulative Hydrologic Impact Assessment (CHIA) for Miller Creek, OSM has documented an increase in dissolved salts and suspended sediment due to coal mining activities. The increases are not to the level of material damage, and U.S. Fuel has designed their mining and reclamation plan to minimize impacts on the hydrologic balance. However, there is strong doubt whether quarterly monitoring will be sufficient to provide the necessary data to analyze these changes in water quality. Therefore, Condition No. 4 is necessary.

U.S. Fuel has accepted OSM's required analytical schedule which deletes total and dissolved iron, alkalinity, and oil and grease. Analyses in the Miller Creek CHIA documented that dissolved iron is naturally high throughout the study area, and the dissolved iron concentration is sometimes higher below the mine disturbance than above it. The CHIA concluded that more long-term data are needed for dissolved iron. Therefore, dissolved iron must be kept in the routine sampling analytical schedule (see Condition No. 4).

In previous correspondence (letter dated 23 July 1981), the Manti LaSal National Forest requested that U.S. Fuel include alkalinity in the Hiawatha Mines Complex water monitoring program. Therefore, alkalinity should be included in the surface water monitoring program (see Condition No. 4).

U.S. Fuel also proposes to delete radioactivity (gross alpha and gross beta). This is acceptable because radioactivity has not been found to be a problem either at the Hiawatha Mines Complex or for the Wasatch Plateau Coal Field.

U.S. Fuel will include a suite of heavy metal and other parameters in the comprehensive analytical schedule. These parameters are aluminum, cadmium, boron, chromium, copper, lead, mercury, molybdenum, nickel, ammonia, phosphate, and sulfide. It is assumed that the dissolved constituent of all of these parameters will be measured. U.S. Fuel needs to commit to monitoring using the comprehensive

analytical schedule twice a year (see Condition No. 4).

All of the records from the surface water monitoring program indicate that surface water monitoring is being conducted according to the existing plan and that the plan is adequate to measure and record changes in surface water quantity and quality as caused by coal mining activities. Modification of the surface water monitoring program as proposed by U.S. Fuel should not reduce the quality of the monitoring data if Condition No. 4 is followed. Therefore, U.S. Fuel will be in compliance with UMC 817.52(b) for the Hiawatha Mines Complex with the following Conditions. In addition, U.S. Fuel is in compliance with UMC 783.16, 784.16, 784.22, 783.24(g), 817.52, and 817.54.

Condition No. 4

U.S. Fuel conduct monthly sampling at all surface water monitoring stations during the period of April through August in accordance with the routine sampling analytical schedule listed below:

- Flow rate
- Temperature (air and water)
- pH
- Specific conductance
- Total suspended solids
- Total dissolved solids
- Sodium
- Calcium
- Magnesium
- Potassium
- Sulfate
- Bicarbonate/carbonate
- Chloride
- Alkalinity
- Dissolved iron
- Oil and grease

Twice per year, once during snowmelt flow and once during low flow, the samples will be analyzed using the comprehensive analytical schedule listed in UDOGM guidelines. Data will be submitted quarterly

to UDOGM. An analyses and summary of the data will be submitted annually.

UMC 784.16 RECLAMATION PLAN: PONDS, IMPOUNDMENTS, BANKS, DAMS, AND EMBANKMENTS

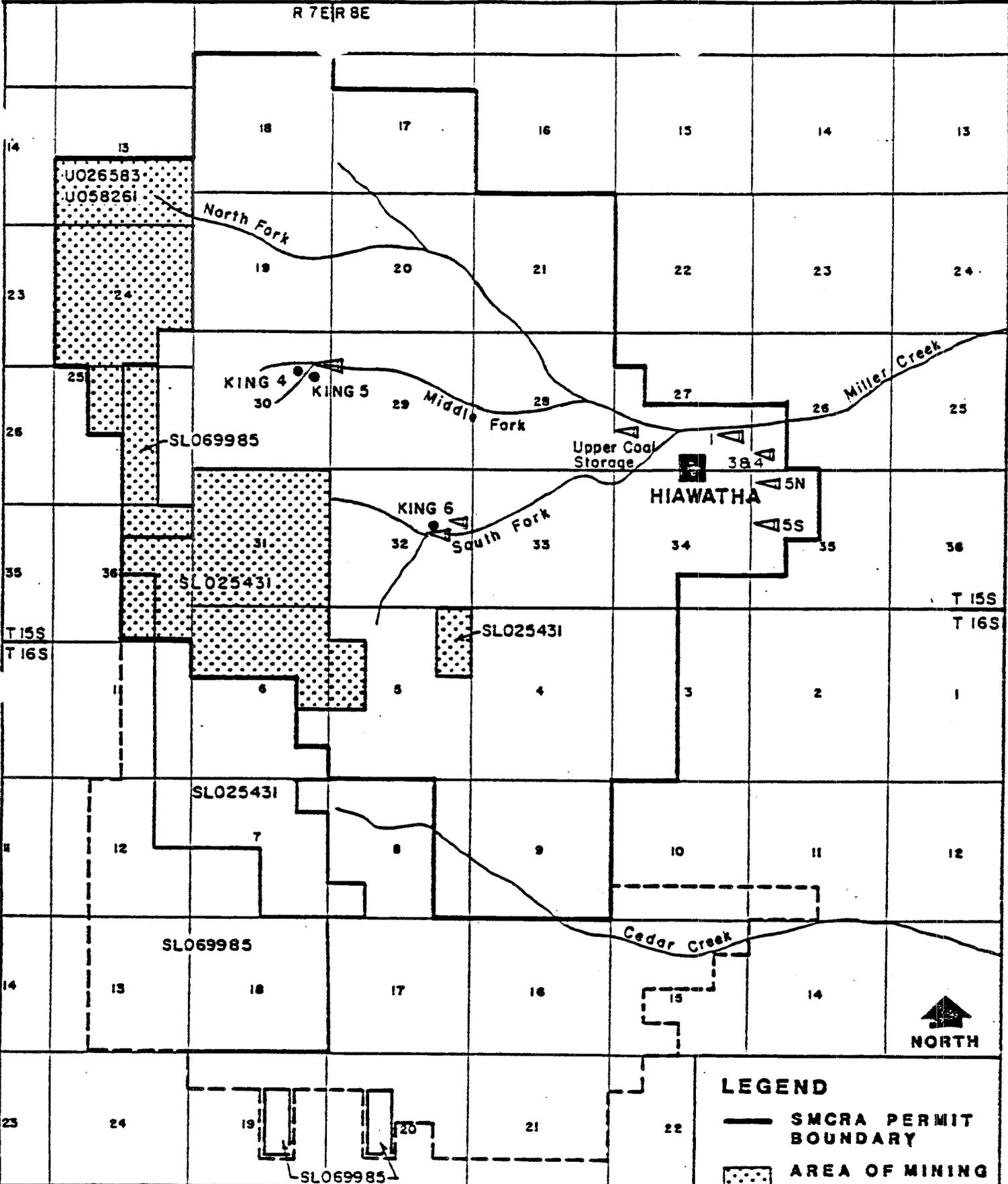
(b)(1) Sedimentation Ponds

The Hiawatha Mines Complex currently contains eight sedimentation ponds (see Figure 9). Most of these ponds were constructed in 1978 or 1979 to achieve on-the-ground compliance with the drainage and sediment control rules and regulations of OSM's interim regulatory program. Approval of the sedimentation ponds for the Middle Fork portal yard, South Fork portal yard, and upper coal storage yard was given by OSM and UDOGM on 30 May 1980. Approval of the ponds was given by Utah Water Pollution Control in August 1979. The sediment control structures for the coal pile/truck loadout area on the South Fork were reviewed by OSM and UDOGM during the analysis in conjunction with the reopening of King No. 6 Mine (approved 15 July 1981). Review and approval of the other sedimentation ponds were deferred for later review.

All sedimentation ponds were analyzed during this review for compliance with UMC 817.45 (Hydrologic Balance: Sediment Control Measures), 817.46 (Hydrologic Balance: Sedimentation Ponds), 817.47 (Hydrologic Balance: Discharge Structures), 817.49 (Hydrologic Balance: Postmining Rehabilitation of Sedimentation Ponds, Diversions, Impoundments, and Treatment Facilities), and 817.57 (Hydrologic Balance: Stream Buffer Zones).

Information used in the review was obtained primarily from four studies: "Surface Hydrology and Culvert Adequacy of the Hiawatha and Mohrland, Utah Areas" (Vaughn Hansen Associates, August 1978), "Supplemental Hydrologic Information for Sedimentation Ponds at Hiawatha and Mohrland, Utah" (Rollins, Brown and Gunnel, Inc. May, 1979), "Hydrologic Information King VI Mine Area, U.S. Fuel Company" (Sharon Steel Corp, December 1980), and a series of correspondence from U.S. Fuel dated February 1979 through July 1979 for a sedimentation pond associated with reconstruction of Slurry Pond No. 1. A fifth

R 7E | R 8E



LEGEND

-  **SMCR PERMIT BOUNDARY**
-  **AREA OF MINING PLAN APPROVAL**
-  **LIFE OF MINE BOUNDARY**
-  **FEDERAL LEASE BOUNDARY**
-  **SEDIMENTATION PONDS**

Figure 9
HIAWATHA MINES COMPLEX
EXISTING SEDIMENTATION PONDS



study was provided by the applicant in their DOA letter response of November 1983 for sedimentation ponds associated with topsoil areas A and D. Sediment removal, pond maintenance, and pond inspection procedures are presented in the ACR response (Volume 1, Chapter III, pages III-14A and III-29A).

Runoff and sediment volume estimates were made by the applicant using acceptable methods and were checked by OSM for accuracy using the SEDIMOT program. There was good agreement between the results cited by the applicant and those of the SEDIMOT program. Therefore, the runoff and sediment volume estimates are acceptable.

Top width, embankment slopes, relative elevations of the principal and emergency spillways, sizing of the principal and emergency spillways, sediment removal, bank stabilization, erosion control, inspection procedures, and pond removal schedules were evaluated as they relate to 817.46 and 47 and were found to be in compliance for all existing and proposed sedimentation ponds. Three special cases were identified that need to be discussed in more detail.

The runoff and sediment volumes estimated in the Vaughn Hansen Associates study (1978) were different from the corresponding estimates in the Rollins, Brown and Gunnel study (1979). The Vaughn Hansen study consistently required a larger pond size because of higher runoff and sediment volume estimates. This discrepancy was pointed out in a letter from Sharon Steel to UDOGM dated 28 October 1981. It appears that the Vaughn Hansen study designed the sedimentation ponds for a larger disturbed area and a higher sediment contribution per disturbed area. The higher sediment volume per disturbed area was required under the interim program regulations but was revised to a lower sediment volume per disturbed area in the permanent program regulations. The Rollins, Brown and Gunnel report simply used the more current regulations to design the sedimentation ponds.

The second special case deals with a recent notice of violation that U.S. Fuel received for excess discharge into Sedimentation Pond 5 North. The applicant has provided an abatement plan (dated 29 February 1984). During the review of this abatement plan, the sizing of Slurry Pond 5A as related to runoff and sediment control was reviewed and

found to be inadequate. Slurry Pond 5A is used as an auxiliary pond when Slurry Pond 5 is full. Slurry Pond 5 is used to contain runoff from two undisturbed areas (through culvert 12 and culvert 2), waste water from the preparation plant (2.36 acre-feet per day), and runoff from the disturbed area around the town. In their ACR response (page III-14A), U.S. Fuel argues that Slurry Pond 5A has an active storage volume of 18.6 acre-feet and a storage area in the voids of the Slurry of 71.3 acre-feet, for an available total storage volume of 89.9 acre-feet.

U.S. Fuel was in error in sizing the pond. Their submittal stated that the pond was 900 feet by 300 feet by 35 feet using 1 foot of freeboard. Performance standards for coal processing waste dams and embankments (UMC 817.93) require that these ponds have at least 3 feet of freeboard. Therefore, the active storage volume is 6.2 acre-feet.

The seepage rate of the slurry pond is sufficient to allow for the daily wastewater from the preparation plant without any cumulative storage (letter of 29 February 1984). Therefore, the only concern is whether the volume of voids in the waste rock can be used as storage for surface runoff.

When in use, the slurry ponds have standing water in them, which indicates that the voids in the waste rock are filled with water. Therefore, the only available storage is the 6.2 acre-feet of active storage. This storage volume is sufficient for runoff from the disturbed area and wastewater from the processing plant, but not enough to contain the design event from the undisturbed areas. Therefore, Condition No. 5 is necessary for future long-term use of Slurry Pond 5A. U.S. Fuel is not currently using Slurry Pond 5N.

Condition No. 5

Slurry Pond 5N is not to be used to contain runoff from the undisturbed areas flowing through culverts Nos. 2 and 12.

U.S. Fuel received an inspector's violation (NOV 82-2-5-1) for failure to construct a sedimentation pond according to the approved plan for the coal loadout area of King Mine No. 6. U.S. Fuel did

respond to this NOV with a series of plans which were approved by UDOGM on 20 September 1982.

Sedimentation ponds for King Mine Nos. 4, 5, and 6 will be removed when the portal areas are reclaimed. Removal of the ponds will be in the summer when stream flow is low and chances of increasing the suspended sediment load are minimal. Prior to removal of the ponds, a series of three sediment traps measuring approximately 15 feet square and five feet deep, will be constructed below the existing sedimentation pond. The traps will be left in place after mining to minimize disturbance.

According to statements made on page 60 of the January 1984 DOA response, the applicant proposes to leave the existing sedimentation ponds for the preparation plant, slurry ponds, and coal refuse embankments in place until the end of regrading operations. This is not in compliance with UMC 817.46(u) which requires that sedimentation ponds not be removed until the revegetation requirements are met. Therefore, Condition No. 6 is required.

Condition No. 6

U.S. Fuel must commit to leaving the sedimentation ponds for the upper coal storage area and Slurry Ponds No. 1, 3, 4, and 5 in place and active through the regrading and revegetation period.

Exhibit III-3 shows an equipment storage yard about 500 feet east of Slurry Pond 5 North. No runoff or sediment control facilities are in place for this yard. Therefore, Condition No. 7 is necessary.

Condition No. 7

Within 60 days of permit issuance, U.S. Fuels must submit plans and specifications for a drainage and runoff control plan for the equipment storage yard east of Slurry Pond 5. The plans must demonstrate that runoff leaving the disturbed area will meet effluent limitations and that all sediment control structures comply with UMC 817.45, 817.46, 817.47, and 817.49.

No permanent impoundments are proposed. Therefore, the applicant

is in compliance with UMC 817.49 and 817.56.

The applicant has constructed a small (about 1 acre) ventilation pad on the Right Fork of the North Fork of Miller Creek (see Figure 9). Because of the small area of disturbance, a small area exemption was allowed (UMC 817.42 (a)(3)), and the applicant is using strawbales to control sediment from the area. This is in compliance with UMC 817.42 and 817.45.

Two of the existing sedimentation ponds, the upper coal storage yard pond and the sedimentation pond associated with Slurry Pond No. 1, are within 100 feet of Miller Creek. Miller Creek is a perennial stream with a biological community (assumed), but data from the surface water monitoring reports do not indicate that any adverse effects on water quantity or quality are associated with these two ponds. Therefore, the applicant is in compliance with UMC 817.57.

In summary, with the following conditions, the applicant will be in compliance with UMC 817.45, 817.46, 817.47, 817.49, and 817.57.

UMC 784.22 DIVERSIONS

Each of the portal pads, the upper coal storage yard, the preparation plant area, and the slurry pond areas have small, overland flow, temporary diversions associated with them. Information on these diversions is presented in the original submittal, Chapter VII, and in "Surface Hydrology and Culvert Adequacy of the Hiawatha and Mohrland, Utah, Areas" (Vaughn Hansen Associates, 1978). Information on the design of these diversions is presented in Chapter XII, Exhibit III-1A, and Exhibit III-4A, respectively. Additional information on the permanent stream diversion adjacent to Slurry Pond No. 1 is presented in a letter from U.S. Fuel to UDOGM dated 20 February 1979. Information on the reclamation of the Middle Fork and South Fork is presented on Exhibit III-11, III-12A, and III-12A1.

Miller Creek and its tributaries are diverted from a point adjacent to Slurry Pond No. 1, from under the portal pad for the King No. 4 and 5 Mines (Middle Fork), and from under the sedimentation pond for the King No. 6 Mine (South Fork). Only the diversion adjacent to

Slurry Pond No. 1 is a permanent diversion. The other stream diversions will be reclaimed when the portal pad area(s) are reclaimed.

Some of the surface water flows of the Left Fork of the North Fork of Miller Creek have been diverted into the underground mine workings. This subject will be discussed under UMC 817.55.

The PAP is complete and technically adequate in regard to UMC 784.22. Compliance has been evaluated as it applies to UMC 817.43 (Hydrologic Balance: Diversions and conveyance of Overland Flow, Shallow Ground Water Flow, and Ephemeral Streams), 817.44 (Hydrologic Balance: Stream Channel Diversions), 817.47 (Hydrologic Balance: Discharge Structures), and 817.56 (Hydrologic Balance: Postmining Rehabilitation of Sedimentation Ponds, Diversions, Impoundments, and Treatment Facilities).

All temporary overland flow diversions were checked to ensure adequate flow capacity, freeboard, and erosion control. All diversions were checked by the applicant to determine if the temporary diversions would be able to safely pass the runoff from the 50 year 6-hour precipitation event (see letter from Vaughn Hansen Associates dated 21 February 1980. A mitigation plan was recommended by Vaughn Hansen for all diversions not capable of passing the design event.

Since the approval of the ditches (letter from UDOGM dated 30 May 1980), the Hiawatha Mines Complex has received three inspection violations for breached diversion ditches (NOV Nos. 82-2-10-1, 83-4-2, and 83-4-9-2). All of these violations were terminated and no proceedings were initiated.

Miller Creek was diverted adjacent to Slurry Pond No. 1 in 1979. The original slurry pond embankment was too steep and, to make room for the flatter embankment slopes, the creek was moved approximately 50 to 150 feet to the north. The diversion length is approximately 600 feet, about 10 feet short of the natural channel length. The diversion channel was designed to safely carry the runoff resulting from the 100-year, 24-hour storm (letter from U.S. Fuel dated 19 March 1979), and stipulated that the channel be riprapped for the entire length of the diversion to protect against erosion (letter from UDOGM dated 29

March 1979). The diversion will be permanent, and it is in compliance with UMC 817.44.

Temporary diversions have been constructed for the Middle and South Forks of Miller Creek. The Middle Fork diversion conveys the undisturbed drainage under the portal yard and sedimentation pond for the King No. 4 and 5 mines and the South Fork diversion conveys the undisturbed drainage under the upper sedimentation pond at the King No. 6 mine. Both culverts are adequately sized for the 50-year, 6-hour event. Reclamation of these channels will occur at the time of reclamation of the portals. Both reclaimed channels are adequately sized to safely convey the runoff resulting from the 100-year, 24-hour precipitation event. The applicant's calculations were checked by OSM using the SEDIMOT model. Both reclaimed channels were checked for erosion control, longitudinal stream profiles, and channel cross-sections. Designs for both reclaimed channels are in compliance with UMC 817.44.

In summary, all diversion ditches, temporary or permanent, are currently in compliance with UMC 784.22, 817.43, 817.44, 817.47, and 817.56.

IX - HYDROLOGIC BALANCE - GROUND WATER - UMC 783.13 AND 783.15

The ground water resources in the permit and adjacent area of the Hiawatha Mines Complex are described in the following parts of the PAP:

1. Original submittal, Volume II Chapter VII;
2. DOA response, Volume I, Part 783-15 and 784.14; and
3. DOA response, 16 March 1984.

The description of ground water resources in the sources mentioned above has been reviewed and has been found to be complete and technically adequate. The information from these sources has been used to define the ground water flow system as part of the CHIA.

The most significant ground water resources that may be affected by the Hiawatha Mines Complex include:

1. springs in hydraulic connection with the Bear Canyon Fault where the fault has been intercepted by the mine; and

2. springs overlying the Hiawatha Mines Complex in areas where mine subsidence may reach the surface.

The PAP is in compliance with UMC 783.13 and 783.15.

X - ALLUVIAL VALLEY FLOORS - UMC 785.19 AND 822

The applicant has delineated the extent of areas meeting the alluvial valley floor (AVF) geomorphic criteria in the permit and adjacent area of the Hiawatha Mines Complex (Exhibit VI-7). The valleys of Cedar Creek and Miller Creek are the only valleys meeting the geomorphic criteria. There is no history of flood irrigation activities in the Cedar Creek or Miller Creek Valleys in the vicinity of the Hiawatha Mines Complex, although irrigation is practiced approximately two miles downstream from the Hiawatha Mines. The PAP discusses the difference between the valley floor characteristics of the lower irrigated area and the upper valley. The upper valley is narrow, has steep slopes (10 to 15 percent), cobbly soils and is of limited areal extent (50 to 100 feet wide and up to 10 acres in size) (DOA letter response, Volume I, page 93). The PAP concludes that there is no precedent for developing irrigation agricultural activities in areas similar to the upper valleys of Cedar and Miller Creeks for a 30 mile radius around the Hiawatha Mines Complex. Therefore, it is concluded the valleys of Cedar Creek and Miller Creek are AVFs in their lower reaches (i.e., approximately 2 miles downstream from the Hiawatha Mines Complex). However, in close proximity to the mines, the valley bottoms are not suitable for developing flood irrigation.

Regarding subirrigation agricultural activities, test pits installed on representative terrace areas in the valleys of Cedar Creek and Miller Creek (that meet the AVF geomorphic criteria), revealed that onsite vegetation is subirrigated. However, the vegetation present on these terraces is not agriculturally useful (permit application, Volume I, page 94 and Table IX-7). It is, therefore, concluded that subirrigated agricultural activities are not occurring on the valleys of Cedar and Miller Creeks.

Based on the preceding discussion, it is concluded that the valleys of Cedar Creek and Miller Creek in the vicinity of the Hiawatha

Mines Complex are not AVFs. The PAP has provided adequate information to make the AVF determinations mandated by UMC 785.19 and the PAP is, therefore, in compliance with this section.

The PAP also provides a surface water and ground water monitoring program that will document the preservation of the essential hydrologic function of flood irrigation both during and after mining for the AVFs downstream from the Hiawatha Mines Complex (see chapter XII of this TA, Part UMC 817.52).

XI - WATER RIGHTS AND REPLACEMENT - UMC 783.17 AND 817.53

Chapter XII (Part UMC 784.14) discusses the applicant's assessment of probable hydrologic consequences of the proposed mining. The following commitment by the applicant is broad enough to deal with all potentially affected water sources identified as part of the probable hydrologic consequences.

In Volume I of the DOA response (pages 23 and 23A) the applicant has identified the following alternate means to replace existing water sources that may be interrupted:

1. Transfer water rights using U.S. Fuel's available water rights (see Volume I, Appendix VII-5);
2. Collect spring flow at a remote location and pipe the water to the vicinity of the lost water source;
3. Install a guzzler (and possibly truck the water to the site);
or
4. Develop a surface water retention pond.

The applicant's commitment to replace affected sources of water using the procedures described above is considered adequate to find compliance with UMC 783.17.

The applicant does not propose to transfer any wells to any other surface owner. Therefore, UMC 817.53 is not applicable.

XII - PROBABLE HYDROLOGIC CONSEQUENCES OF MINING - UMC 784.14, 817.50, 817.55, AND 817.52

UMC 784.14 RECLAMATION PLAN: PROTECTION OF THE HYDROLOGIC BALANCE

Surface Water

Information to describe water rights and measures to minimize the disturbance to the hydrologic balance are presented in Chapter VII of the original submittal and the ACR and DOA responses. This information is determined to be complete in regard to surface water.

Compliance was evaluated with respect to UMC 817.41 (Hydrologic Balance: General Requirements), 817.42 (Hydrologic Balance: Water Quality Standards and Effluent Limitations), 817.48 (Hydrologic Balance: Acid-Forming or Toxic-forming Materials), and 817.54 (Hydrologic Balance: Water Rights and Replacement).

Bath houses and associated sewage drain fields are used at both the King No. 4, 5, and 6 Mines. No problems, either related to water quality or to use, have been identified with either septic drain field. Location and size of the septic drain fields are shown on Exhibits III-1A and III-4A.

Surface water rights are discussed in the November 1983 DOA response (pages 23 through 32) U.S. Fuel has sufficient water rights to satisfy their demands for mine water on both Miller Creek and Cedar Creek. There will be interbasin diversions of water both into and out of Miller Creek and Cedar Creek, but neither the probable hydrologic consequences (PHC) done by the operator nor the CHIA by OSM have identified any adverse impacts to surface water quantity. Therefore, the applicant is in compliance with UMC 817.54.

Water quality analyses of standing water in the slurry ponds indicate that the slurry pond water quality is similar to the surface water quality. In addition, the data indicated that neither the surface water nor the slurry pond water is acidic or in violation of pertinent water quality standards for Miller Creek. Therefore, the Hiawatha Mines Complex is in compliance with UMC 817.48.

All of the sedimentation ponds have gated valves on the principal spillways. The NPDES self monitoring reports show that none of the sedimentation ponds have ever discharged. Most of the sedimentation ponds will not be removed until the area is reclaimed and the drainage

meets the applicable state and Federal water quality standards. Ponds for the King No. 4, 5 and 6 Mines will be removed and replaced by sediment traps. Therefore, sediment contribution outside of the permit area will be minimized.

Mine water discharges from three points: Mohrland portal, Hiawatha overflow tank, and King No 4 Mine. The NPDES self-monitoring reports show that, with an occasional exception of total dissolved solids and oil and grease, the mine discharge water is in compliance with the effluent limitations. EPA has determined that this is not a significant noncompliance (personal communication, 23 March 1984).

In summary, runoff and sediment control facilities at the Hiawatha Mines Complex are designed to minimize impacts on the hydrologic balance both during and after mining. The applicant is currently in compliance with UMC 817.41, 817.42, 817.48, and 817.54.

Ground Water

The probable hydrologic consequences with respect to ground water resources in the area adjacent to the Hiawatha Mines Complex is presented in the following parts of the PAP:

- Volume II, Chapter VII, part 7.1.7;
- ACR response, Chapter VII;
- DOA response Volume 1, part UMC 784.14; and
- DOA response, 15 March 1984, Attachment No. 2.

Mining at the Hiawatha Mines Complex has had unknown previous impacts to the ground water resources in the area. In 1972, the most significant ground water inflow to the Hiawatha Mines occurred when mining tapped into ground water moving along the Bear Canyon Fault. At the present time flow from the fault continuously yields 100 gpm. This water is discharged at the Mohrland portal and is conveyed in part to the town of Hiawatha for their domestic water supply. The remaining water is discharged to Cedar Creek. It is apparent that the Bear Canyon Fault is acting as a conduit for ground water flow in the vicinity of the Hiawatha Mines Complex. Numerous springs issue from the Bear Canyon Fault where the stratigraphically lower Star Point Sandstone has been fractured. It is unknown what the hydraulic

connection is between the ground water that currently discharges from the faulted Blackhawk Formation and the lower, fractured Star Point Sandstone. No effects of mining have been observed at down gradient springs when they were studied several years after the interception of Bear Canyon Fault water in the Hiawatha Mines. This is interpreted to mean that the discharge of ground water from the Bear Canyon fault (at a constant 100 GPM) is at steady state discharge with respect to the surrounding ground water systems. Therefore, because the Hiawatha Mines Complex will not be mining near the Bear Canyon Fault within the SMCRA Permit Area, there will be no additional impacts to surrounding hydrologic resources associated with the fault.

By comparison, only 25 gpm of ground water inflow occurs in the remainder of the extensive Hiawatha King No. 6 Mine for four isolated points in the mine. The range of ground water inflow varies from 3 gpm to 7 gpm. This is considered to be a relatively dry mine (with the exception of the Bear Canyon Fault) that has encountered isolated, more permeable zones in the Blackhawk Formation. With the discontinuous nature of the more permeable zones in the Blackhawk Formation, it is doubtful if the ground water inflow in the mine is in strong hydraulic connection with other hydrologic resources in the area.

The subsidence effects of the Hiawatha Mines Complex are predicted to be the primary mechanism that will cause additional impact to ground water resources in the permit and adjacent areas. The applicant has developed several assumptions in order to support the projection of springs that may experience declines in flow as a result of mine subsidence:

- . Only those areas where pillars will be removed are expected to subside;
- . Subsidence fractures may reach the surface within an angle of draw of 70 degrees of the mine;
- . Surface subsidence effects will be limited to fully extracted areas beneath the Blackhawk Formation, Castlegate Sandstone, and Price River Formation;
- . No diversion of spring flow is expected as a result of

subsidence effects to the North Horn Formation; and

- Subsidence effects will be limited by the Bear Canyon Fault to the west of the Hiawatha Mines Complex.

Based on these assumptions, the applicant provided a map showing the extent of projected surface subsidence and springs with water rights (see Exhibit VII-1C in the DOA respons, updated 9 January 1984). In addition, seeps and springs within the subsidence zone can be determined from Exhibit VII-1D in the DOA response, updated 9 January 1984. Therefore, subsidence effects are projected for the area in which coal will be fully extracted and the area within the 70 degree angle of draw that occurs stratigraphically below the contact of the North Horn-Price River Formation contact. Within this zone, three springs with water rights may be impacted (Water rights 91-103, 91-104, and 91-1633). Two of these springs (91-103 and 91-104) have water rights belonging to U.S. Fuel for domestic use. It is not possible to determine the amount of flow of these springs because the water right for each of the potentially affected springs is accumulated with several other nearby springs. It should be noted that this water is not essential to any domestic water supplies in the area. Other waters are available from the Mohrland Mine discharge or the diversion from the North Fork of Miller Creek.

Several other small springs (less than 5 gpm) also occur within the zone that may be affected by subsidence (see Exhibit VII-1D in the DOA response, updated 9 January 1984). These springs do not have water rights associated with them, although the water sources are used for stock and wildlife watering.

Please, refer to Part UMC 817.54 in this chapter for the discussion of alternate sources of water available to replace the USFS water right that may be affected.

The PAP also discusses the potential impacts of mine subsidence in relation to overlying streams. Subsidence in the North Horn formation is predicted to be very gradual, with no abrupt changes in slope. For this reason, erosional instability in the North Horn Formation is not expected to change noticeably. For the Price River and Castlegate

Sandstone Formations, subsidence effects are predicted to be abrupt with changes in elevation of approximately 3 feet. The slopes and stream channels representative of these potential subsidence areas are, however, quite rocky with abundant competent rock ledges. Therefore, conditions of erosional instability are not expected in relation to mine subsidence in the Price River or Castlegate Sandstone Formations.

The control of mine discharges is discussed under Part UMC 817.50 in this chapter. The PAP is in compliance with regard to UMC 784.14.

UMC 817.50 HYDROLOGIC BALANCE: UNDERGROUND MINE ENTRY AND ACCESS DISCHARGES AND UMC 817.55 HYDROLOGIC BALANCE: DISCHARGE OF WATER INTO AN UNDERGROUND MINE

At the present time water from the North Fork of Miller Creek is diverted into the Hiawatha No. 2 Mine (DOA response updated 9 January 1984, Exhibit III-17). This water is conveyed via underground workings into a mine regulating reservoir in the Hiawatha No. 2 Mine, with a storage capacity of 100,000,000 gallons. Discharge from the mine is regulated by pressure valves in bulkheads located in the Middle Fork of Miller Creek. In addition, water is piped across the Middle Fork drainage into the Hiawatha No. 1 Mine. This water is conveyed through underground workings to the South Fork portals. At this location, water is piped from the mine to the town of Hiawatha. This water is considered a secondary source of culinary water for the town.

The primary source of culinary water for the town of Hiawatha is ground water discharge from the Bear Canyon Fault that is discharged from the Mohrland portal in Cedar Canyon. This water is piped from the mine outlet to the town. Excess water is discharged to Cedar Creek.

The operator has not complied with the road abandonment requirements required pursuant to UMC 817.156 (see Chapter XXIII, Part UMC 817.156). If it is assumed that the roads in the North Fork, Middle Fork, and South Fork Miller Creek will be reclaimed upon the cessation of mining, it follows that reclamation of these roads will preclude the town of Hiawatha from using or maintaining the diversion of water from the North Fork of Miller Creek into the Hiawatha No. 2 Mine, the bulkheads and pipes in the Middle Fork of Miller Creek and

the water delivery system that exists at the South Fork of Miller Creek portals. U.S. Fuel must, therefore, remove and reclaim the water diversion and delivery structures according to the standards of 817.56. This requirement was made a part of Condition No. 1 (see chapter, post-mining land use, UMC 784.15).

Conversely, if U.S. Fuel proposes an alternative land use (UMC 817.133) the following discussion is appropriate. In the event that U.S. Fuel provides the commitments required, both water supplies previously described would be turned over to the town of Hiawatha at the time of mine abandonment. The town would maintain all water facilities in perpetuity from the time of mine abandonment. The water quality from these sources meets the effluent limitations at all times and meets the water quality standards for domestic water most of the time (extremely infrequently, concentrations of total dissolved solids and oil and grease have been observed to be slightly above the domestic water quality standards). The discharge of water from the mines has caused no deterioration in the hydrologic balance of the area and the discharges complement the postmining land use of grazing and wildlife habitat. For the reasons described above, the diversion of water into the Hiawatha Mines Complex and discharge to the South Fork of Miller Creek and to Cedar Creek is in compliance with UMC 917.49, 817.50 and 817.55. However, concurrence from the Mine Safety and Health Administration is required with respect to 817.55 before final approval from OSM can be given.

UMC 817.52 HYDROLOGIC BALANCE: GROUND WATER MONITORING

The ground water monitoring program associated with the Hiawatha Mines Complex can be found in the original submittal, (Volume II, Chapter VII, page VII-7 and VII-8); the DOA response updated 9 January 1984, (Volume I, pages 131 and 132 and Attachment No. 4).

The applicant has committed to conduct an adequate in-mine ground water monitoring program.

No wells are available to monitor changes in ground water resources. Springs are monitored instead to indicate if mining impacts are occurring. At the present time 10 springs (Springs Sp-1 to Sp-10,

See Map M02 in the DOA response updated 9 January 1984) are monitored twice annually at low flow and high flow. Spring water quality samples are proposed to be analyzed for a list of parameters including temperature, specific conductance, total dissolved solids, and the major cations and anions. The applicant also proposes to delete monitoring springs SP-3, SP-7, and SP-10. Springs SP-11, SP-12, and SP-13 (i.e. springs 15-8-19-2, 15-8-30-4, and 15-8-31-4, respectively, on Exhibit VII-1D in the DOA response updated 9 January 1984) are proposed as replacement monitoring springs because the applicant feels they are more representative of springs that may be affected by mining.

The spring monitoring program is not considered to be adequate to meet the requirements of UMC 817.52. The CHIA concludes that previous mining adjacent to the water bearing Bear Canyon Fault has already had a maximum impact on water resources associated with the fault zone. These impacts occurred years ago and remain undocumented. However, there is no point in monitoring springs associated with the fault when maximum impacts have already occurred.

Subsidence is considered the mechanism most likely to affect flow to springs. The assumption has been made in the PAP (DOA response updated 9 January 1984, Volume I, page 74) that subsidence will only occur in areas within the angle of draw of workings that will be fully extracted. The maximum extent of potential subsidence is delineated on Exhibit VII-1C (DOA response updated 9 January 1984). Within this zone it is possible that some spring flow may be diminished or dry up as a result of mine subsidence. While the 10 springs proposed to be monitored by the applicant (i.e., SP-1, SP-2, SP-4, SP-5, SP-6, SP-8, SP-9, SP-11, SP-12, and SP-13) represent the variability of springs issuing from the potentially affected geologic sources, it is also likely that very localized ground water flow paths may be responsible for individual springs. In other words, local ground water flow systems that are not related to areally extensive flow systems may be disrupted by subsidence fractures.

Because the effects of mining cannot be documented totally by monitoring the 10 springs, and because it is not practical to monitor all springs (see Exhibit VII-1D, in the PAP), it is reasonable to

require that the most important springs in the subsidence zone should be monitored. To meet this requirement, U.S. Fuel must also monitor the sole spring with water rights belonging to other users in the area and located within the subsidence zone as depicted on Exhibit VII-1C. The water right (91-1633) belongs to the USFS and is used for stock watering. U.S. Fuel was required to adopt this monitoring plan in January and March 1984.

OSM and UDOGM have recently reached agreement concerning the ground water monitoring program that will be implemented at Utah coal mines. U.S. Fuel must also change their spring monitoring program to agree with the new ground water monitoring policy. It should be noted that this request was previously made to U.S. Fuel in the 13 February 1984 letter.

With acceptance of Condition No. 8, the application will be in compliance with UMC 817.52.

Condition No. 8

- U.S. Fuel must include in its monitoring program the USFS spring that is within the maximum area of potential subsidence as depicted on Exhibit VII-1C.
- U.S. Fuel must also change their spring monitoring schedule according to the following OSM/UDOGM policy:

Each spring that is included in the monitoring network will be monitored during the period of June through August. During the monthly monitoring period, measurements of flow, pH, specific electrical conductance (EC), calculated total dissolved solids and temperature must be made. A quarterly flow measurement will be taken together with a water quality sample. The water quality sample will be analyzed for sodium, calcium, magnesium, potassium, sulfate, bicarbonate, carbonate, chloride, total dissolved solids, pH, field EC, and field temperature. Twice a year (spring and fall) a flow measurement will be made and a water

quality sample taken. The sample will be analyzed according to the complete suite of parameters listed in UDOGM guidelines. Data will be submitted quarterly to UDOGM with an annual analysis and summary of the data.

U.S. Fuel must notify UDOGM by phone when a monitoring measurement is missed and provide a reason for not collecting the data.

XIII CLIMATOLOGICAL INFORMATION AND AIR RESOURCES - UMC 783.19 AND 784.26

UMC 783.18 CLIMATOLOGICAL INFORMATION AND AIR RESOURCES

The applicant was not requested by UDOGM to provide information on the climate or air resources of the permit area. Therefore, the applicant is in compliance with UMC 783.18.

UMC 784.26 AIR POLLUTION CONTROL PLAN

The applicant was not required by UDOGM or Utah Department of Health to develop an air pollution control plan. The applicant is, therefore, in compliance with UMC 784.26.

XIV - TOPSOIL - UMC 783.21, 784.13(b)(3 and 4), AND 817.21 THROUGH .25 UMC 784.13(b)(4) and UMC 817.21 - TOPSOIL: GENERAL REQUIREMENTS

The applicant has provided results of chemical and physical analyses for topsoil, subsoil, and substitute topsoil (topsoil/subsoil/overburden mixtures). The document and page number where information on sampling methodologies and analytical results are listed by area of disturbance in the table below. Chemical and physical data for soils prior to disturbance exist only for the new portal breakout area in the Middle Fork of Miller Creek and Borrow Areas A and D. The remaining disturbance proposed in the PAP is confined to previously disturbed areas.

| <u>Disturbance Area</u> | <u>Sampling Methodologies</u> | <u>Analytical Results</u> |
|-------------------------|------------------------------------|------------------------------------|
| North Fork Area | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, Table VIII-1 |
| Middle Fork Area | | |

| | | |
|--|---|--|
| Portals | DOA response, Vol. I, pp. 47-48 | DOA response, Vol. I, Table VIII-9 |
| Breakout | DOA response, Vol. I, pp. 47, 140 | DOA response, Vol. I, Table VIII-14 |
| South Fork Area Portal | DOA response, Vol. I, pp. 47-47A, 54-55 | DOA response, Vol. I, Table VIII-9 |
| Conveyor/Load- out | ACR response, Chapt. VIII, Table VIII-1 and Bio/West report | ACR response, Chapt. VII, Bio/West report |
| Preparation Plant* | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, Table VIII-1 |
| Slurry Ponds Topsoil* Subsoil/sub- strate | DOA response, Vol. I, pp 125A-129 | DOA response, Vol. I, Table VIII-1 |
| Pond #1 Sampling 1 | DOA response, Vol. I, p. 134 | DOA response, Vol. I, Tables VIII-11&12 |
| Sampling 2 | 15 March 1984 DOA response, Attachment 1 | - |
| Pond #4 | DOA response, Vol. I, p. 134 | DOA response Vol. I, Tables VIII-12&12 |
| Pond #5 | DOA response, Vol. I, p. 134 | DOA response, Vol. I, Tables VIII-11&12 |
| Borrow Areas Area A | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, Table VIII-1 |
| Area D | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, Table VIII-1 |
| Equipment Storage Yard | - | - |

*Sources of substitute topsoil are soil materials of Borrow Areas A and D.

Required information is not presented for disturbed areas occupied by Slurry Pond No. 1 and the Equipment Storage Yard. Therefore, the PAP is not in compliance with UMC 784.13(b)(4) and UMC 817.21. Applicant acceptance of Condition No. 9 will be necessary to achieve compliance with these regulations.

Condition No. 9

The applicant must provide the following information within 90

days of permit issuance:

- . Analytical results and suitability evaluations for Slurry Pond No. 1 refuse materials and a specific location for the slurry pond field trial study;
- . Chemical and physical data consistent with the set of analyses performed for soil samples in disturbed areas for representative soil samples collected from the equipment storage yard.

UMC 784.13(b)(4) and UMC 817.22 TOPSOIL: REMOVAL

The applicant has provided adequate information detailing the timing of topsoil salvage, the materials to be removed, and the area of topsoil salvage for the new breakout portals in the Middle Fork of Miller Creek. This area of disturbance is the only new area of disturbance for which topsoil/subsoil is to be removed for storage and redistribution. This information is presented in the ACR response, Chapter VIII, p. VIII-1 and DOA response, Volume I, page 140. No information on topsoil removal has been provided for the equipment storage yard.

The applicant has also provided information detailing the sources and characteristics of substitute topsoil material. The document and page number where information on the composition, areal extent, and available volume of material are listed by disturbed area using substitute topsoil in the table below. Refer to UMC 784.13(b)(4) and UMC 817.21 Topsoil: General Requirements for location of chemical and physical analytical results.

| <u>Area</u> | <u>Composition</u> | <u>Areal Extent and Available Volume</u> |
|-----------------------------|---|---|
| North Fork Area | DOA response, Vol. I, pp. 54 and 125A-129 | DOA response, Vol. I, p. 42 and Vol. III, Exhibit VIII-4A |
| Middle Fork Area Portal* | DOA response, Vol. I, pp. 47-47A | DOA response, Vol. I, p. 47A and Vol. III, Exhibit IX-3B |
| South Fork Area Portal | DOA response, Vol. I, | DOA response, Vol. I, |

| | | |
|------------------------|--|--|
| | pp. 54-55A | pp. 55-55A and Volume III, Exhibit IX-4A |
| Conveyor/Load-out | ACR response, Chapt. VIII, Bio/West report | DOA response, Vol. I, p. 55A and Vol. III, Exhibit VIII-4 |
| Preparation Plant | DOA response, Vol. I, pp. 55A-56 and 125A-129 | DOA response, Vol. I, pp. 40A-42 and Vol. III, Exhibit VIII-4A |
| Slurry Ponds | | |
| Substitute Topsoil* | DOA response, Vol. I, pp. 55A-56, 125-129, 133-136 | DOA response, Vol. I, pp. 40A-42 and Vol. III, Exhibit VIII-4A |
| Substitute Subsoil | DOA response, Vol. I, pp. 133-136 | DOA response, Vol. I, p. 136 and Vol. II, Exhibit III-3 |
| Borrow Areas | | |
| Area A | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, p. 41 and Vol. III, Exhibit VIII-4a |
| Area D | DOA response, Vol. I, pp. 125A-129 | DOA response, Vol. I, p. 42 and Vol. III, Exhibit VIII-4A |
| Equipment Storage Area | - | - |

*Lack sufficient information for evaluation.

There is apparently sufficient suitable topsoil material to allow only four inches of topsoil redistribution in the Middle Fork portals area. Redistribution thickness is unacceptable in terms of reclamation feasibility and contradicts the 6-inch thickness of topsoil redistribution proposed by the applicant.

Site-specific plans for reclamation of the conveyor and loadout in the South Fork of Miller Creek have not been presented. Potential sources of substitute topsoil (soil and/or overburden mixtures) are evaluated in terms of representative soil samples; however, areal extents of substitute topsoil sources are not identified by acreage figures or in exhibits. Therefore, proposed thicknesses of topsoil material are not supported by calculations based on acreages to be retopsoiled and available topsoil material volumes.

A complete evaluation of the slurry pond area refuse materials cannot be made until analytical results for samples collected in the refuse materials of Slurry Pond No. 1 are provided. The suitability of the refuse materials for use as a subsoil growth medium cannot be determined and, therefore, a recommendation concerning an adequate topsoil redistribution thickness cannot be made. The inability to estimate an adequate topsoil thickness for this slurry pond area affects the proposed design and location of the field trial study. The applicant has stated in the March 1984 updated DOA response that the field trial associated with the slurry pond area will be located in the refuse materials with the most extensive adverse characteristics. This commitment for field trial site selection in the worst case refuse materials is acceptable; however, the location of the worse case material must be provided. Applicant acceptance of Condition 10 will be necessary to achieve compliance with UMC 784.13(b)(4) and UMC 817.21.

Condition No. 10

The applicant must provide the following information within 90 days of permit issuance:

- . The volume of the topsoil stockpile at the junction of the Middle Fork and North Fork roads is insufficient to cover the disturbed area associated with the Middle Fork portals with 6 inches of topsoil. An additional source and/or volume of substitute topsoil material, sufficient to permit distribution to a minimum thickness of 6, inches must be identified.
- . A set of calculations, supported by exhibits, which identifies the sources of topsoil (areal extent), the volume of available topsoil material, and the area to be reclaimed (topsoiled) must be provided for the conveyor/loadout facilities in the South Fork area.
- . Analytical results and suitability evaluations for the Slurry Pond No. 1 refuse materials and a specific location for the slurry pond area field trial study must be provided.

- A complete, detailed set of plans for topsoil or substitute topsoil material removal must be provided for the Equipment Storage Yard.

UMC 784.13(b)(4) and UMC 817.23 TOPSOIL: STORAGE

The applicant has provided adequate information detailing the need for topsoil storage, the selection of stockpile locations, and the protection of proposed and current topsoil stockpiles for all disturbed areas except the Equipment Storage Yard. The document and page number where pertinent information is presented are listed by stockpile location (area of disturbance) in the table below.

| <u>Disturbance Area</u> | <u>Stockpile Locations</u> | <u>Protective Measures</u> |
|-------------------------|--|--|
| Middle Fork Area | | |
| Current stockpile | DOA response, Vol. III, Exhibit VIII-4 | DOA response, Vol. I, p. 131A |
| Propose stockpile | DOA response, Vol. III, Exhibit VIII-4 | DOA response, Vol. I, pp. 47 and 140 |
| South Fork Area | | |
| Lamb's Trailer | DOA response, Vol. III, Exhibit VIII-4 | ACR response, Chapt. VIII, p. VIII-2 and Bio/West report |
| Equipment Storage Yard | - | - |

The PAP does not demonstrate compliance with UMC 784.13(b)(4) and UMC 817.23 because of the lack of information specific to the equipment storage yard and roads. Therefore, Condition No. 11 is necessary.

Condition No. 11

Within 60 days of permit issuance the applicant must provide plans for topsoil stockpile site selection and protection for the Equipment Storage Yard

UMC 784.13(b)(4) and UMC 817.24 TOPSOIL: REDISTRIBUTION

The applicant has provided information on regraded surface preparation and topsoil redistribution constraints including

achievements of stable, uniform thickness, prevention of excess compaction, and protection from erosion. The document and page number where this information appears is listed by area of disturbance in the table below. The absence of document and page listings indicates that the information has not been provided.

| <u>Disturbance Area</u> | <u>Surface Preparation</u> | <u>Redistribution Constraints</u> |
|-------------------------|--|--|
| North Fork Area | - | DOA, response, Vol. I, p. 54 |
| Middle Fork Area | | |
| Portals | - | DOA response, Vol. I, p. 47A |
| Breakout | - | DOA response, Vol. I, pp. 47A and 141 |
| South Fork area | | |
| Portal | - | DOA response, Vol. I, pp. 55-55A |
| Conveyor/Load-out | ACR response, Chapt. VIII, Bio/West report | ACR response, Chapt. VIII, Bio/West report |
| Preparation Plant | DOA response, Vol. I, p. 56 | DOA response, Vol. I, p. 56 |
| Slurry Ponds | DOA response, Vol. I, p. 134 | DOA response, Vol. I, p. 56 |
| Borrow Areas | | |
| Area A | DOA response, Vol. I, pp. 41-42 | DOA response, Vol. I pp. 41-42 |
| Area D | DOA response, Vol. I, pp. 42-43 | DOA response, Vol. I, pp. 42-43 |
| Equipment Storage Yard | - | - |

The PAP provides no specific information or plans for the preparation of the regraded surfaces prior to topsoil redistribution in the North Fork area, Middle Fork area, South Fork area (portal), and Equipment Storage Yard. No information pertinent to redistribution constraints is provided in the PAP for the Equipment Storage Yard and this information is either lacking or inadequate for the Middle Fork area (portals and breakout) and South Fork area (conveyor/loadout). The limitations of the redistribution constraints information provided

in the PAP are listed by disturbance area below.

| <u>Disturbance Area</u> | <u>Limitations</u> |
|-------------------------------------|---|
| Middle Fork Area Portal | Insufficient toposil cover (4 inches), no means to prevent excessive compaction |
| Breakout | No means to prevent excessive compaction |
| South Fork Area Conveyor/Loadout | No means to prevent excessive compaction |

Since required information is not presented for all disturbed areas, the PAP does not demonstrate applicant compliance with UMC 784.13(b)(4) and UMC 817.24 and Condition No. 12 is required.

Condition No. 12

The applicant must provide the following information within 60 days of permit issuance:

- Methods of surface preparation for graded materials for the North Fork area, Middle Fork area, and South Fork area (portal);
- A commitment to redistribute topsoil to a minimum thickness of 6 inches in the Middle Fork area;
- Methods to prevent excessive compaction of topsoil material for the Middle Fork area and South Fork area (conveyor/loadout);
- Complete detailed plans for topsoil redistribution for the Equipment Storage Yard.

UMC 784.13(b)(4) and UMC 817.25 TOPSOIL: NUTRIENTS AND SOIL AMENDMENTS

The applicant has provided either rates of fertilizer application or a commitment to sample and test for rates of fertilizer application for all areas of disturbance except the Equipment Storage Yard. The document and page number where information on fertilization requirements is listed are presented by area of disturbance in the table below. The absence of document and page listings indicates the information has not been provided.

| <u>Disturbance Area</u> | <u>Nutrients and Soil Amendments Information</u> |
|-------------------------|--|
|-------------------------|--|

| | |
|--|--|
| North Fork Area | DOA response, Volume I, page 43 |
| Middle Fork Area | DOA response, Volume I, pages 47-47A |
| South Fork Area Portal Conveyor/load- out | DOA response, Volume I, page 55 ACR response, Chapter VIII, Bio/West report |
| Preparation Plant | DOA response, Volume I, page 56 |
| Slurry Ponds | DOA response, Volume I, pages 136 and 56 |
| Borrow Areas Area A Area D | DOA response, Volume I, page 41 DOA response, Volume I, pages 43-44 |
| Equipment and Storage Yard | - |

Required information is not presented for the Equipment Storage Yard and, therefore, the applicant is not in compliance with UMC 784.13(b)(4) and UMC 817.25. Applicant acceptance of Condition 13 will be necessary to achieve compliance with these regulations.

Condition No. 13

Within 60 days of permit issuance, the applicant must provide a commitment to test for nutrient deficiencies and recommended rates of fertilizer/amendment application, or provide test results with recommended rates of fertilizer/amendment application for the Equipment Storage Yard.

XI - VEGETATION RESOURCES - UMC 783.19, 784.13(b)(5), and 817.111-817.117

Information regarding existing vegetation resources and the applicant's proposed revegetation plan are found in the following sections of the PAP.

| <u>Section</u> | <u>Date of Submission</u> | <u>Pages</u> |
|--------------------------|---------------------------|--------------|
| Vegetation Resources: | | |
| Vol. III, Chapter IX | March 1981 | 1-80 |
| Vol. III, Exhibits | March 1981 | IX-1 to IX-4 |
| ACR response, Chapter IX | | |

| | | |
|----------------------|---------------|------------|
| Section 783.19 | July 1983 | |
| Vol. I, Chapter III | March 1981 | III-31 |
| Vol. III, Exhibits, | | |
| Response to DOA | November 1983 | IX-1 and |
| | | IX-1A |
| | February 1984 | IX-2A |
| | | IX-3A and |
| | | IX-3B |
| | | IX-4A to |
| | | IX-4C |
| Revegetation Plan: | | |
| Vol. I, Chapter III | March 1981 | III-35 to |
| | | III-47 |
| Vol. III, Exhibits, | | |
| Response to DOA | November 1983 | IX-5 |
| Response to ACR, | | |
| Section 783.13(5) | July 1983 | III-31A to |
| | | III-46 |
| Response to ACR, | | |
| Attachment 1 | July 1983 | |
| Response to ACR, | | |
| Attachment 2 | July 1983 | |
| Response to ACR, | | |
| Revegetation Plan | July 1983 | |
| Vol. III, Chapter X, | | |
| Appendix 10.4B | March 1981 | |

No threatened or endangered plant species occur in the proposed permit area and no Federally-designated critical habitats are present (ACR response, Chapter IX, Section UMC 783.19). However, formal confirmation of this point has not been received from the U.S. Fish and Wildlife Service (USFWS).

Ten vegetation types have been mapped within the permit area as described in Chapter II of this TA. The species composition of these vegetation types are presented in Chapter IX of the ACR response. Exhibits, submitted as Volume III, DOA responses dated 7 November 1983, 13 February 1984, and 16 March 1984, provide a suitable vegetation map of the permit area and the locations of all sampling and reference areas. The appropriate exhibits are IX-1; IX-1A, IX-2A, and IX-3A; IX-3B; and IX-4A to IX-4C. Table X-2, page 89A, presents the disturbed acreage by community type.

The mining complex has disturbed a total of 332 acres of vegetation within the present permit area. Proposed reclamation

activities within the permit area will affect an additional 24 acres of vegetation. The types of plant communities and the quantities that have been and will be affected are presented in the table below.

Summary of Vegetation Losses at the Hiawatha
Mines Complex by Vegetation Type

| <u>Vegetation Type</u> | <u>Total Acres Disturbed</u> | <u>Percent of Total Disturbance</u> |
|----------------------------|----------------------------------|---|
| Pinyon-juniper | 266 | 74.7 |
| Mountain brush | 35 | 9.8 |
| Sagebrush | 25 | 7.1 |
| Mixed conifer | 15 | 4.2 |
| Riparian woodland | <u>15</u> | <u>4.2</u> |
| Total | 356 | 100.0 |

Twelve reference areas of 1.03 acres each have been established (ACR response, Chapter IX, p.3). Nine of these reference areas were established in the present permit area and three were located in the future mine permit area along Cedar Creek (DOA response, 13 February 1984, Exhibit IX-1). At least one reference area has been established for each vegetation type that has been or will be disturbed. Sampling adequacy was achieved for cover, productivity, and woody plant density (ACR response, Chapter IX, Appendix B) at the required confidence and precision levels.

The PAP contains adequate plans for revegetating approximately 235 acres of the total 356 acres that will be disturbed by mining and reclamation. Revegetation mixtures are adequately designed to accommodate wildlife and livestock uses. The PAP proposes no revegetation of the haul roads (40 acres) up the Left, Middle, and Right Forks of Miller Creek, the railroad facilities (15 acres) and the town of Hiawatha (66 acres). For haul roads, however, the PAP has not complied with the provisions of UMC 817.133 (Postmining Land Use), specifically subsections (c)(8), and UMC 817.111(a) and (b)(1) (General Revegetation Requirements). With the provision of acceptable haul road reclamation or alternative post mining land use plans as expressed in Condition No. 1, the PAP will be in compliance with UMC 817.111.

The revegetation plan contains technically adequate plans for mulching (proposed rate of one ton per acre, DOA response, p. 119), fertilizer applications (DOA response, pp. 41-44, Section UMC 784.13(a)), seed mixtures and rates for broadcast methods (DOA response, Tables IX-1 to IX-4), tree and shrub planting densities and spatial arrangements (DOA response, pp. 62, updated 9 January 1984), criteria for demonstrating successful revegetation (DOA response, pp. 63, updated 9 January 1984), and a contemporaneous schedule for revegetation (DOA response, pp. 48-53, dated 7 November 1984). A technically sound field trial design is presented for testing seed mixtures, soil depths, fertilizer types and application rates, and mulching rates (DOA response, pp. 103-125, updated 9 January 1984). The results of these field trials will be used to modify, if necessary, the approaches now described in the PAP.

During the PAP review process, concerns were raised about the suitability of the refuse pile substrates to support future plant growth. Some of the laboratory data indicated a marginal suitability of some chemical and physical properties (e.g., water holding capacity and fertility) of the substrates for sustaining plant growth equivalent to the reference areas. Such concerns were recognized by the applicant and formed the basis for designing the field trial experiments. It has been demonstrated that the substrate materials have the potential capability of supporting plant growth. Whether the substrates will actually support the proposed revegetation mixtures at suitable production levels remains to be demonstrated by the field trials. Modifications in the proposed substitute topsoil depths, fertilizer rates and types, seed mixtures, and mulching rates may be required as a result of the field trial results. The applicant has recognized that these potential effects may result and has committed to incorporating the findings into a modified revegetation plan, as necessary, to achieve revegetation success equivalent to the reference areas.

XVI - FISH AND WILDLIFE RESOURCES - UMC 784.21 AND UMC 817.97

Information regarding fish and wildlife resources and the applicant's fish and wildlife protection plan are found in the

following sections of the PAP.

| <u>Section</u> | <u>Date of Submission</u> | <u>Pages</u> |
|---|---------------------------|--------------------------------|
| Fish and Wildlife Resource Data | | |
| Vol. III, Chapter X | March 1981 | 1-46 |
| Vol. III, Chapter X, Appendix A | March 1981 | 1-68 |
| Response to ACR Comments Section 784.21 | July 1983 | 6A-6C |
| Response to ACR Comments Chapter X, Appendix D | July 1983 | 1-17 |
| Fish and Wildlife Plan | | |
| Vol. I, Chapter III | March 1981 | 32 |
| Vol. III, Chapter X, Appendix B | March 1981 | 1-22 |
| Vol. III, Response to DOA | November 1983 | Exhibits X-1, X-2, and X-3A |
| Vol. I, Response to DOA Section 784.21 | January 1984 | 85-90 |
| Vol. I, Response to DOA Section 817.97 | January 1984 | 132-133 |
| Vol. III, Response to DOA | November 1983 | Exhibit X-4 |

No threatened or endangered fish or wildlife species occur on the proposed permit area and no Federally-designated critical habitats are present (original submittal, Volume III, Chapter X). The bald eagle, American peregrine falcon, and arctic peregrine falcon occur sporadically in the local area but do not nest in the permit area. The permit area has been designated as having substantial value for the bald eagle and American peregrine falcon by the Utah Division of Wildlife Resources (UDWR) (original submittal Volume III, Chapter X) and of limited value for the arctic peregrine falcon. The golden eagle is commonly observed in the permit area. A nest site survey (ACR response, Appendix D) conducted within a 0.5 km radius of the disturbance areas revealed no golden eagle nesting activity. It is likely, however, that nesting does occur elsewhere in the permit area (original submittal, Volume III, Chapter X). It is not anticipated that mining activities will affect the remote nest sites. Documentation regarding the status of threatened and endangered species from the USFWS has not been received.

The design and construction of power transmission and distribution lines have been reviewed by the USFWS and have been found acceptable to protect raptors (letter dated 5 March 1984 from UDOGM). However, the applicant has not committed to designing future power transmission and distribution lines in a manner that protects raptors. Therefore, the applicant should commit to implementing such design and construction measures that will insure raptor protection as expressed in Condition No. 14. With such a commitment, compliance with regulations protecting raptors will be achieved.

Condition No. 14

Within 60 days of permit issuance, U.S. Fuel must provide to the regulatory authority for approval a commitment to follow and incorporate the guidelines set forth in Environmental Criteria for Electric Transmission Systems (USDI, USDA 1970) and REA Bulletin 61-10, Powerline Contacts by Eagles and Other Large Birds, in all future design and construction activities involving electric power transmission and distribution lines.

Fish and wildlife issues that developed during the numerous reviews of the PAP included the need for: (1) inventory of raptors and species of high Federal interest; (2) riparian habitat protection and restoration plan; (3) mitigation plan for wildlife habitat, especially big game; (4) survey of electric transmission lines to meet raptor protection standards; (5) survey of springs and seeps and their wildlife use; (6) adequate design of King No. 6 conveyor to allow big game passage; (7) the post-mining reclamation of haul roads; and (8) consultation with the USFWS on the presence of threatened and endangered species in the mine permit area.

The PAP has provided technically adequate information and/or plans for all of the issues above, except for the reclamation of the haul roads and the formal acknowledgement on the status of threatened and endangered species from the USFWS. A summary of each issue is provided.

In response to concerns raised about the status of raptors, a raptor survey was conducted in 1983. The results were reported as

Appendix D of Chapter X in the ACR response dated July 1983. It was reasonably concluded that mining did not represent a significant hazard to raptors.

The USFWS conducted a survey of electric transmission and distribution lines at the Hiawatha Mines Complex during August 1981 and recommended no structural modifications because existing lines did not represent a hazard to raptors (letter dated 9 October 1981).

Concern was expressed about the protection and restoration of disturbed riparian habitat and/or the riparian zones (OSM ACR dated 8 November 1982; UDOGM ACR dated 8 November 1982). The applicant subsequently committed to: (1) restoring disturbed riparian habitat (about 1 acre); (2) establishing a riparian habitat buffer zone 100 feet wide; and (3) contacting the appropriate regulatory agency prior to any future disturbance of riparian habitat. The proposed species mixture, buffer zone width and approach for restoring riparian habitat are appropriate for creating a diverse, self-sustaining, and native community type. However, approximately 15 acres of riparian habitat have been disturbed by mining facilities (roads, railroad facilities, and the town of Hiawatha). Restoration is proposed for only one acre of riparian habitat (DOA response, Volume I, page 87, dated 16 March 1984), which means that about 14 acres of this high value wildlife habitat will be permanently lost. The PAP does not contain mitigation plans to compensate for this loss. The facilities responsible for these losses, especially haul roads, are still used in the current mining activities and are, therefore, covered by the reclamation and restoration regulations. The PAP is currently not in compliance with UMC 817.97(d)(4) and (d)(5). With the provision of acceptable commitments and plans, as expressed in Condition No. 15, the PAP will be in compliance with UMC 817.97

Condition No. 15

Within 60 days of permit issuance, U.S. Fuel must provide to the regulatory agency for approval a plan for restoring the 14 acres of riparian habitat lost because of mining activities.

A survey of springs and seeps was conducted and use by wildlife

species, principally deer, was noted (ACR response, UMC 783.15). Using the worst-case assumptions that subsidence would induce reduction in spring and seep flows, U.S. Fuel estimated that a maximum of 11 springs and seeps would be affected. The cumulative flow of these springs and seeps is approximately 24 gpm (DOA response, page 80, January 1984). U.S. Fuel has committed to providing replacement water sources for wildlife for springs and seeps that are affected by subsidence (DOA response, pp. 63). This commitment is considered adequate for compliance with UMC 817.97.

Blockage of mule deer movements by the proposed King No. 6 conveyor system became an important concern of UDOGM (letter dated 15 July 1981) and (letter dated 30 July 1981). The applicant provided the required engineering plans and modifications of the conveyor system to accommodate deer passage. The modified conveyor system was approved by the UDWR as representing no barrier to deer movement (letter dated 19 April 1983).

The vagueness of the proposed wildlife mitigation measures and the quantity of wildlife habitat that would be affected by mining operations were issues constantly raised by OSM, USFWS, UDWR, and UDOGM during PAP reviews. Big game habitat restoration was an especially frequent concern. The mining permit area includes critical deer and elk winter range (8,360 acres), high-priority elk winter range (1,017 acres), and high-priority deer and elk summer range (3,335 acres). Mining activities in the Miller Creek and Cedar Creek drainages have affected critical deer and elk winter range, while development of the town of Hiawatha, the processing plant, and waste disposal sites have affected high-priority deer and elk winter ranges. The total area of wildlife habitat disturbance is 357 acres (DOA response, 16 March 1984, page 85). The PAP stated that 236 acres will be restored to wildlife habitat. The remaining acreage (211 acres) will not be reclaimed as it will support the town of Hiawatha, railroad facilities, and paved roads following the completion of mining (DOA response, 16 March 1984, Table X-1). Haul roads, however, must be reclaimed unless a change in postmining land use is proposed and approved. Consequently, these acreages are considered preliminary and subject to

change. Most of the unreclaimed wildlife habitat will involve high-priority deer and elk winter range. Wildlife habitat mitigation will be accomplished by restoring the plant community that was present before mining began. Successful revegetation will be determined by comparisons with reference areas.

Regarding the development and commitment to specific wildlife mitigation measures, the PAP contains 14 measures that are considered to constitute adequate wildlife mitigation. These include commitments to (1) revegetate disturbed areas to approximate pre-mining conditions; (2) establish riparian habitat buffer zones; (3) replace lost springs/seeps with a nearby alternate water source; (4) conduct a wildlife education program; (5) enforce poaching regulations; (6) reduce highway speed limits; (7) design conveyor systems to allow deer passage; (8) restore big game habitats to original or better conditions; (9) notify UDWR of raptor nests and to conduct surveys in areas of future disturbance; (10) avoid disturbance to aspen, conifer, and mixed aspen-conifer stands; (11) supply water to BLM habitat improvement projects; (12) report discovery of snake and bear dens to UDWR; (13) clear all pesticide use with UDWR; and (14) reclaim all temporary exploration roads and prevent public access. These commitments are considered appropriate and satisfactory wildlife mitigation that comply with the intent of UMC 784.21 and UMC 817.97.

Concerns have recently been raised by OSM (letter dated 2 March 1984), UDWR (letter dated 14 February 1984), and the USFWS in a memo to OSM dated 16 February 1984, regarding the postmining retention of haul roads and the potential effects on the postmining land use for wildlife habitat. The applicant proposes retaining the roads to provide access to the domestic water supply for the town of Hiawatha. The UDWR and the USFWS are concerned that unrestricted public access along the roads will degrade or impair the suitability of the abandoned lands for wildlife because unrestricted human activity in critical deer and elk winter ranges can cause these species to avoid this important type of habitat. In order to comply with UMC 817.97, the adverse effects of mining operations on important wildlife habitats have to be avoided or minimized. Unrestricted public use of the haul roads do not comply

with this regulation. The haul road retention issue is currently unresolved (see discussion of postmining land use, UMC 784.15 and Condition No. 1). OSM believes that, unless a change in postmining land use is approved, the haul roads must be reclaimed to support the proposed postmining land use of wildlife habitat and rangeland. U.S. Fuel disagrees and has requested an opinion from OSM's solicitor. The PAP must contain either alternative land use provisions or provisions for reclaiming haul roads such that wildlife habitat and rangeland uses can be accommodated. With the submission of either the road reclamation or alternative use information required by Condition No. 1, the applicant will be in compliance with UMC 784.21 and UMC 817.97.

Formal documentation from the USFWS regarding the status of threatened and endangered species in the mine permit area has not been received yet.

XVII - PRIME FARMLAND - UMC 783.27, 784.17 and 823

The PAP (DOA response, Volume I, pp. 93-103) states that the permit area of the Hiawatha Mines Complex contains no lands suitable for flood irrigation because of steep slopes (10 to 15 percent), cobbly soils, and limited size of stream terrace deposits. In addition, the U.S. Soil Conservation Service has provided a letter (17 January 1983, in ACR response, Appendix VIII-1) documenting that there are no prime farmlands in the vicinity of the Hiawatha Mines Complex. The PAP is in compliance with UMC 783.27. UMC 785.17 and UMC 823 do not apply since no prime farmlands will be affected.

XVIII - EXPLOSIVES - UMC 784.23(b)(9) AND 817.61 THROUGH .68

The applicant has identified the location of the existing explosives storage structure on Exhibit III-14 and has stated that no surface use of explosives has been made for the past two years, nor is there any anticipated use of explosives. The applicant is in compliance with these regulations.

XIX - OPERATION DESCRIPTION - UMC 784.11 AND 784.12

The applicant has provided in the original submittal, Volume I,

Chapter III, a description of the mining procedures, techniques, equipment and facilities as well as annual planned production of coal. Also involved are detailed descriptions of the construction, use, and reclamation of slurry and sedimentation ponds; disposal of spoil, mine, and noncoal wastes; and disposal of waste water generated by the mining operations. The application is in compliance with the provisions of UMC 784.11 and 784.12.

XX - BACKFILLING AND GRADING - UMC 784.13(b)((93), 817.101, 817.72, 817.73 AND 817.74

A plan for the backfilling, compaction, and grading of existing mine portals, work yards, and sedimentation ponds has been presented in the original submittal, Volume I, Chapter III. Contour maps and cross sections showing the anticipated final surface configuration have been included for these areas. No plan, however, has been included for the restoration of the existing haul and mine access roads in the North Fork, Middle Fork, or South Fork canyons. The absence of specific data on postmining restoration of roadways, relating to backfilling and grading, is a deficiency in the application and this information is required as a part of permit Condition No. 1. With the satisfaction of permit Condition No. 1, the applicant will be in compliance with regulations UMC 784.13(b)(3), 817.12, 817.73, 817.74, and 817.101.

XXI - COAL PROCESSING WASTE AND NON-COAL PROCESSING WASTE - UMC 784.13(b)(6), (b)(7), 784.16(c) AND (d), 784.19, 784.25, 817.71, 817.93, AND 817.103

The applicant has provided information which addresses the issues of handling and disposal of debris (noncoal), acid-forming and toxic-forming materials, and materials constituting a fire hazard, including contingency plans to preclude sustained combustion. A plan for noncoal waste storage and disposal is presented in the ACR response, Chapter III, and 13 August and 3 November 1981 letters from the applicant to UDOGM. The applicant has committed to the burial of acid-forming and toxic-forming materials beneath four feet of the best available nonacid-forming and nontoxic-forming materials (ACR response,

Chapter III, page III-52). The applicant has also indicated that no acid-forming or toxic-forming materials occur in any of the disturbed areas, based on data provided in the DOA response, Volume I, pages 133-137. The disposal of combustible materials (coal refuse) is also discussed in the DOA response, Volume I, pages 133-137. Contingency plans for precluding sustained combustion of these materials are presented in the original submittal, Chapter XII, and 24 May 1976 letter from applicant to MSHA.

The plan for noncoal waste disposal has been approved by UDOGM (ACR response, Chapter III, 10 February 1982 letter). Data provide no evidence of acid-forming or toxic-forming materials occurring in the disturbed areas. The handling and disposal of potentially combustible materials (slurry pond embankment refuse materials) will be in compliance once Condition No. 9 is met (Topsoil Reclamation, see UMC 784.13(b)(4) and 817.21). The plan for precluding sustained combustion of combustible materials has been approved by MSHA (30 June 1976 letter). Therefore, the PAP is in compliance with UMC 817.13(b)(7), UMC 817.89, and 817.103.

UMC 784.16(d) and (e) RECLAMATION PLAN: PONDS, IMPOUNDMENTS, BANKS, DAMS, AND EMBANKMENTS

The applicant has provided information addressing coal processing waste banks, dams, and embankments in the original submittal, Volume IV, Chapter XII, and page 133 of the DOA response. MSHA has approved the plans for all currently active impoundments (Numbers 1, 4, 5 North, and 5 South). Revisions to Slurry Pond No. 1 was approved by OSM in March 1979.

Compliance was determined in regard to UMC 817.81 through 817.85 (Coal Processing Waste Banks), UMC 817.86 and 817.87 (Coal Processing Waste: Burning) and UMC 817.91 through 817.93 (Coal Processing Waste). UDOGM approved the design of the slurry ponds without a subdrainage system because the ponds are already built and have been shown to have a static safety factor of greater than 1.5.

UDOGM also approves the covering of the coal processing waste as discussed in Chapter XIV of this TA. The applicant is in compliance

with the above sections.

UMC 784.19 UNDERGROUND DEVELOPMENT WASTE

Information concerning the description and disposal of underground development waste is provided in the ACR response (page III-34A) and in plans submitted to UDOGM dated 13 August 1981 and November 1981. The application is in compliance with UMC 817.71 through UMC 817.74.

UMC 784.19 and 817.71 UNDERGROUND DEVELOPMENT WASTE

U.S. Fuel has a demonstrated history of producing minimal amounts of underground development waste. The waste that has been produced has been associated with portal entries or vent shafts and in each case the waste has been used in the construction of mine pads. U.S. Fuel's past history of not producing coal process waste and the reclamation plan for mine pads discussed under UMC 784.13 are considered to be an adequate demonstration of compliance with 784.19.

UMC 784.25 RETURN OF COAL PROCESSING WASTE TO ABANDONED UNDERGROUND WORKINGS

U.S. Fuel does not propose to backfill any coal processing waste to abandoned underground workings. Therefore, UMC 784.25 is not applicable.

XXII - MINE FACILITIES, COAL HANDLING STRUCTURES, AND SUPPORT FACILITIES - UMC 784.11, 784.12, 784.16(a)(2) AND (a)(3), 817.181

Chapter III of the original submittal, paragraphs 3.5.1 through 3.5.4, Tables III-2, III-3, III-6 through III-9, Plate III-1, and Exhibits III-1A through 4B describe the existing and proposed mine facilities and surface support facilities. All facilities conform to the requirements of the regulations. The applicant is, therefore, in compliance with the regulations.

XXIII - ROADS - UMC 784.18, 784.24, AND 817.150 THROUGH 817.180

Descriptions of the existing roads in the North, Middle, and South Forks of Miller Creek canyons are contained in the original submittal,

XXV - SEALING OF DRILLED HOLES AND UNDERGROUND OPENINGS - UMC 817.14 AND 784.13(b)(8)

The applicant has described and furnished details of the methods proposed for sealing mine portal openings and other openings as part of the reclamation plan (original submittal, Volume I, Chapter III). The applicant is in compliance with UMC 817.14 and 784.13(b)(8).

XXVI - SUBSIDENCE - UMC 817.126 AND 784.20

The applicant has presented data on the monitoring and effects of subsidence and the control of any resulting subsidence in the original submittal (Volume I, Chapter III, pages 33, and 65 through 83). The probability of subsidence under a variety of mining conditions has been assessed and provisions for mitigating the effects of subsidence to the environment have been developed. For a discussion of subsidence effects to streams refer to Chapter XII, Part 784.14 of this TA. No perennial streams will be affected by subsidence. The applicant has complied with the requirements of UMC 817.126 and 784.20.

XXVII - SPECIAL CATEGORIES OF MINING OTHER THAN ALLUVIAL VALLEY FLOORS AND PRIME FARMLAND - UMC 827 AND UMC 828

All support facilities associated with the Hiawatha Mines Complex are located within the permit area. Therefore, UMC 827 is not applicable.

No in situ processing of coal is proposed at the Hiawatha Mines Complex. For this reason, UMC 828 is not applicable.

XXVII - MISCELLANEOUS COMPLIANCE

UMC 817.100 CONTEMPORANEOUS RECLAMATION

The applicant has conducted interim revegetation on areas of disturbance including topsoil stockpiles, fill slopes, cut slopes, and sediment pond outslopes. The documents and page numbers where information is presented are the DOA response (Volume I, page 133; Volume II, Exhibits III-12B and III-4B; Volume III, Exhibits IX-4A and IX-4B) and the ACR response (Chapter III, page III-31D and 31-E). The

applicant is in compliance with UMC 817.100.

UMC 817.106 REGRADING OR STABILIZING RILLS AND GULLIES

The applicant has committed to fill, grade, reseed and stabilize all rills and gullies deeper than 9 inches (ACR response, Chapter III, p. III-53). Therefore, the PAP is in compliance with UMC 817.106.

UMC 817.11 SIGNS AND MARKERS

A personal communication with David Lof (UDOGM inspector for the Hiawatha Mines Complex) on 21 March 1984 indicated that the applicant is in compliance with UMC 817.11.

UMC 784.13(b))(9) COMPLIANCE WITH CLEAN AIR AND CLEAN WATER ACTS

The applicant has a current NPDES permit (UT 0023094) from the EPA. The applicant had no outstanding violations on that permit as of 13 March 1984 and, therefore, is regarded as being in compliance with the Clean Water Act by the EPA, UDOGM and Utah Department of Health.

The Utah Department of Health has not required an air quality control plan for the Hiawatha Mines Complex but does maintain a systematic inspection program for the mines. The applicant is, therefore, considered to be in compliance with the Clean Air Act (personal communication Lynn Menlove, Utah Department of Health, 20 March 1984).

UMC 786.11 PUBLIC NOTICES OF FILING OF PERMIT APPLICATIONS

Information on the required newspaper advertisement and proof of publication are provided in the original submittal (Volume I, Chapter II, page II-15) and the DOA response (Volume I, Chapter II, UMC 782.21). The applicant is in compliance with UMC 786.111.

APPENDIX A

CUMULATIVE HYDROLOGIC IMPACT SUMMARY

Under the Surface Mining Control and Reclamation Act of 1977 (PL 94-87), the regulatory authority is required to perform a cumulative hydrologic impact assessment (CHIA) before approving any application to mine. This report includes an assessment of the cumulative hydrologic impacts of all anticipated mining associated with the Hiawatha Mines Complex.

The Hiawatha Mines Complex is located about 14 miles southwest of Price, Utah. The hydrologic impacts associated with the Hiawatha Mines Complex could interact with the Star Point Mines Complex. Therefore, both mine complexes are in the cumulative impact area for the Hiawatha Mines Complex.

Surface disturbances associated with the current mining at the Hiawatha Mines Complex and the Star Point Mines Complex occur in the Miller Creek watershed. Future mining at the Hiawatha Mines Complex will disturb additional lands in the Cedar Creek watershed.

Because of different flow patterns, the surface and ground water cumulative impact area have different but overlapping boundaries. The surface water cumulative impact area includes Miller Creek to the confluence of Serviceberry Creek and Cedar Creek to the Mohrland loadout. The ground water cumulative impact area includes the area over the underground mine workings for the Hiawatha Mines Complex and the Star Point Mines Complex.

Previous studies documented that the major hydrologic impacts associated with underground coal mining in the area are related to changes in ground water quantity and surface water quality. The levels

of impacts on ground water quantity are low, usually associated with consumptive use of ground water for dust control and losses from evaporation caused by ventilation. Consumptive uses of ground water are regulated by the Utah State Engineer since they are associated with water rights.

Changes in surface water quality are usually associated with increases in dissolved salt and suspended sediment. Increases in dissolved salt content in the surface water system occur through three mechanisms:

1. Ground water that recharges the surface streams has a naturally higher total dissolved solids (TDS) content than the receiving waters. The major sources of TDS increases in the impact area are associated with ground water discharges from Mancos Shale.

2. Ground water that discharges from underground coal mines often has a higher TDS content than the receiving waters. Increases in TDS load will vary depending on the length of time the water contacts the coal seam and dust control measures implemented at the mine.

3. Leaching of available salts from freshly disturbed surface mining operations and coal stockpiles results in increases in TDS content to local ground water, which usually recharges the surface stream system.

Data for the impact assessment were obtained from the mining and reclamation plans of those mines in the cumulative impact area and from research studies in the area. There was sufficient information from mine discharge data and descriptions of the mine geology to define the probable impacts on the ground water quantity with a moderate level of confidence.

There were sufficient data to analyze the impacts on surface water quality of Cedar Creek and Miller Creek above the town of Hiawatha with the same moderate level of confidence. However, there was not enough

information on Serviceberry Creek and Miller Creek below the town of Hiawatha for more than a cursory analysis of the potential impacts. For this reach, the lack of data and the heavy influences of Mancos Shale made prediction of impacts very difficult and the level of confidence in the results is low to moderate.

The level of confidence in the results can be raised by providing more long-term hydrologic data. The water monitoring programs for the mines in the cumulative impact area will provide this necessary data over time, but no other data were available to supplement this analysis.

Results of the analyses indicate that underground coal mining will not cause a transbasin diversion of water from the historic discharge point of the Huntington Creek basin to the Miller Creek basin. This will continue as long as the Mohrland portal continues to be used as the discharge point for the Hiawatha Mines Complex.

Mining in the cumulative impact area (CIA) consumptively uses approximately 125 acre-feet per year (18 gallons per minute (gpm)). All of the water consumptively used is owned by the coal operators through a mixture of surface and underground water rights.

Historic mining through the Bear Canyon Fault has produced a significant amount of long-term discharge (100 to 200 gpm) to the mine. Maximum ground water discharge from the cumulative impact area is projected at 2,100 gpm (3,360 acre-feet per year). All of the discharge will be from the Hiawatha Mines Complex.

Historic mining may have diverted some ground water from the Bear Canyon Fault into the underground mine workings at the Hiawatha Mines Complex. Ground water inflow into the Hiawatha Mines Complex was as high as 1,000 gpm in 1972, and this diversion of ground water may have altered the flow patterns of several springs associated with the Bear Canyon Fault. However, it is impossible to define the level of impacts because there are no historic flow data for these springs. The rate of

ground water flow into the Hiawatha Mines Complex from the Bear Canyon Fault has been steady for the past several years at 100 gpm. With the exception of the Star Point Mines, all future mining will leave a barrier of unmined coal along the fault. In the vicinity of the Star Point Mines the fault has been dry. No additional impacts are associated with diverting ground water flows from the Bear Canyon Fault.

Surface water below the coal mining activities has a higher TDS and total suspended solids (TSS) content. TDS increases are associated with increases in sulfate and chloride concentrations. Current TDS levels do not exceed any set of recommended water quality criteria for the current water uses. Future mining will cause an increase in TDS concentration, but this level will also be below the set and recommended water quality criteria. TDS loads (i.e., concentration times flow rate) increase approximately 900 tons per year from non-point sources associated with existing mining operations on Miller Creek and a projected 180 tons per year from future mining operations on Cedar Creek.

Sulfate levels are presently below established water quality standards and if projected estimates of sulfate increases are accurate, then surface disturbances that will be associated with the King 7 and 8 Mines will cause about a two-fold increase in sulfate concentrations. Projected sulfate concentrations will remain below levels established by water quality standards.

Water chemistry of surface waters in the CIA naturally change from a calcium carbonate type to a magnesium sulfate type as streams traverse the Blackhawk Formation and Mancos Shale. Mancos Shales have significant impacts on the water quality of streams traversing them. TDS concentrations are as much as 100 times the TDS levels of water on top of the Wasatch Plateau. Most of these increases are natural and are probably caused by ground water flowing through the formation, leaching available salts from the marine shales, and discharging into the surface waters.

Impacts from the surface facilities associated with mining that are located on the Star Point and Mancos Shales are masked by the degradation of water quality resulting from the streams traversing the Mancos Shales.

TSS concentrations are also higher below the surface disturbed areas. Most of the increased suspended sediment naturally settles out before Miller or Cedar Creek leave the permit area because of decreased stream gradients.

The OSM Surface Water Model was used to route the known water quantity and quality of the Miller Creek waters (at the town of Hiawatha) and the Serviceberry Creek waters (near the town of Wattis) to the confluence of the two creeks. According to the model, the TDS concentration below the confluence of Serviceberry Creek and Miller Creek will exceed the water quality standard for irrigation waters during the middle and late summer months. Most of the TDS concentration is caused by Serviceberry Creek traversing Mancos Shale.



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

Disputed
To Sue
File ACT/807/011
Folder #2

APR 8 1984

Mr. Errol Gardiner
Vice President
U.S. Fuel Company
Hiawatha, Utah 84527

RECEIVED
APR 9 1984
DIV. OIL, GAS, MINING

JIM
APR 19 1984

Dear Mr. Gardiner:

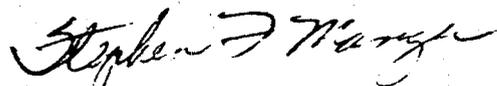
The Office of Surface Mining (OSM) has identified several problems with the information the U.S. Fuel Company has submitted regarding reclamation of disturbed areas. In addition, OSM is attempting to eliminate as many stipulations as possible by requesting information prior to the finalization of the technical analysis (TA). These problems have been discussed with Mr. Eccli and representatives from Ford, Bacon and Davis. Specifically, the following discrepancies and problems need to be resolved immediately so that OSM may proceed with the technical analysis of the permit application package (PAP):

1. Exhibit IX-3B does not show the location of substitute topsoil area "C". In order to confirm its relative location in the Middle Fork pad area, this exhibit must be updated.
2. The information provided for the South Fork area (p. 55A 4/6/84 DOA response) indicates that approximately 7.65 acres are currently being utilized for the loadout and facility area. A source of substitute topsoil material (approximately 5,000 cubic yards) has not been identified to reclaim this area with a minimum of six inches of cover. The applicant must provide for this area a set of calculations supported by appropriate exhibits which identifies the source(s) of topsoil (areal extent), the volume of available topsoil material, and the area to be reclaimed (topsoiled).
3. OSM has planimetered Exhibits III-1b and III-3 to calculate the acreage of disturbed area included in the preparation plant facility area. OSM estimates a total of 97 acres are included in this area. The applicant states on page 40A (4/6/84 Determination of Adequacy response) that 91.14 acres are disturbed in this area. OSM will assume a disturbed area of 97 acres unless the applicant provides documentation that a different figure should be used.
4. Revised Exhibit III-3 (March 15, 1984) still indicates that the applicant proposes to reclaim Slurry Ponds 2 and 3. OSM will assume that the applicant is planning to reclaim these areas unless the applicant provides a revised exhibit indicating that these areas are not to be reclaimed.

5. The applicant states on page 5, Attachment 3 of the 3/16/84 DOA response that the field trial study will be placed on the worst-case materials. The applicant must identify a specific location (i.e. provide appropriate exhibit) for the slurry pond area field trial study.
6. The design and construction of power transmission and distribution lines have been reviewed by the U.S. Fish and Wildlife Service and have been found to be acceptable to protect raptors (letter dated March 5, 1984 from Utah Division of Oil, Gas and Mining). However, the applicant has not committed to designing future power transmission and distribution lines in a manner that protects raptors. The applicant must provide a commitment to follow and incorporate the guidelines set forth in Environmental Criteria for Electric Transmission Systems (USDI, USDA 1970) and Rural Electric Administration Bulletin 61-10, Powerline Contacts by Eagles and Other Large Birds, in all future design and construction activities involving electric power transmission and distribution lines.
7. The applicant states on page 60 of the January 1984 DOA response that sedimentation ponds for the upper coal storage area and Slurry Ponds 1, 3, 4, and 5 will be left in place until the end of regrading operations. This is not in compliance with UMC 817.46(u) which requires that sedimentation ponds not be removed until revegetation requirements are met. U.S. Fuel must commit to leaving these ponds in place and active through the regrading and revegetation period.

Clarification of these items must be provided no later than April 13, 1984. If you have any questions, please contact me or Sarah Branson at (303) 837-3806.

Sincerely,



Stephen F. Manger
Utah Task Force Leader

cc: Dr. Nielson, DOGM
Jack Elder, FBD

To Sue
File
ACT/007/011
#2

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

RECEIVED

April 6, 1984

APR 9 1984

DIVISION OF
OIL, GAS & MINING

JM

APR 09 1984

Mr. James W. Smith
State of Utah Natural Resources
Oil, Gas & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84114

Dear Mr. Smith:

In connection with item No. 7 of OSM's March 29, 1984 information request, relating to the unit train loadout proposal, please find the following plan exhibits enclosed:

6 copies each { EXHIBIT III-19 (G-1)
EXHIBIT III-20 (G-2)
EXHIBIT III-21 (G-3)

These plans are submitted in accordance with the requirements of UMC 784.11, 784.24 and 783.25. The unit train loadout is discussed on page 125 of the Permit Application (March 16 revision).

Sincerely,

Robert Eccli

Robert Eccli
Sr. Mine Engineer

RE:lj

Enclosures:





STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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

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

March 21, 1984

Mr. Douglas F. Day, Director
Division of Wildlife Resources
1596 West North Temple
Salt Lake City, Utah 84116

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Day:

Enclosed please find one (1) copy of the Mining and Reclamation Plan (MRP) Addendum referenced above. This Addendum is forwarded for review by the Division of Wildlife Resources (DWR) in accordance with our Divisions' Memorandum of Understanding (MOU).

As you may recall, the MOU between our Divisions' calls for the following:

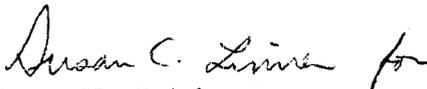
B. Mine Plan Review

1. Upon submission of a mining and reclamation plan to DOGM, the DOGM will notify the DWR in writing of the need for consultation in evaluation of the plan with respect to fish and wildlife resources as required by MC 786.17(a)(2). DOGM will provide a copy of such plan to DWR when available.
2. The DWR will respond to DOGM in writing within 60 days of receipt of the plan with an evaluation of the adequacy or inadequacy of the fish and wildlife plan submitted by the operator to avoid, ameliorate or mitigate impacts of the proposed operation on wildlife resources.

Mr. Douglas F. Day Director
ACT/007/011
March 21, 1984
Page Two

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan Linner of my staff.

Sincerely,


James W. Smith, Jr.
Coordinator of Mined
Land Development

JWS/LMK:btb

Enclosure
00450



STATE OF UTAH
NATURAL RESOURCES
Off. Gas & Mining

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

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

March 21, 1984

Mr. Dee C. Hansen
State Engineer
Division of Water Rights
1636 West North Temple
Salt Lake City, Utah 84116

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Hansen:

Enclosed please find one (1) copy of the above referenced Mining and Reclamation Plan (MRP) Addendum. This Addendum is being forwarded for review by the Dam Safety and Water Rights sections of your office in accordance with our Divisions' Memorandum of Understanding (MOU).

As you will recall, the MOU between our Divisions' calls for the following for the Dam Safety Section:

B. Mine Plan Review:

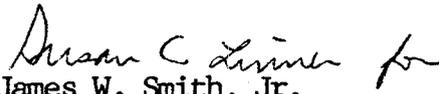
1. Upon submission of a mining and reclamation plan to DOGM, the DOGM will forward a copy of the mining and reclamation plan to Dam Safety. If information additional to that contained in the operator's submission is required, Dam Safety is responsible for contacting the operator to obtain such information. Copies of such requests and also copies of the company's submittal in response to the request will be submitted to DOGM.
2. Within 30 days of receipt of the mining and reclamation plan, Dam Safety shall contact DOGM with their final response to the agency's proposed action on the operator's application.

Mr. Dee C. Hansen
ACT/007/011
March 21, 1984
Page Two

3. If Dam Safety proposes to reject the plan for failure to meet water retention safety standards, the DOGM will call a conference between the state and the operator at the earliest possible date.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact myself or Susan Linner of my staff.

Sincerely,


James W. Smith, Jr.
Coordinator of Mined
Land Development

JWS/LMK:btb

Enclosure
00460



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

March 21, 1984

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

RE: MRP Addendum
U. S. Fuel Company
Hiawatha Complex
ACT/007/011, Folder No. 2
Carbon County, Utah

Dear Mr. Alkema:

Enclosed please find one (1) copy of the above referenced Mining and Reclamation Plan (MRP) Addendum. This Addendum is being forwarded for review by the Division of Environmental Health of your office.

As you will recall, the MOU between our Divisions' calls for the following:

B. Mine Plan Review.

1. Upon submission of a mining and reclamation plan to DOGM, the DOGM, shall, in consultation with DOH, review the operator's list of licenses, permits or approvals to determine whether or not approvals from DOH have been issued.
2. If any permits or approvals from the DOH have not been issued, the DOGM will submit to the DOH those parts of the permit application containing matters within the DOH's jurisdiction or interest for review and response and inform the operator in writing that he must contact DOH for the appropriate permits and approvals.
3. If additional information is required by DOH for any permit or approval, the DOH shall contact the operator for such information. Copies of any such requests and the operator's response to such request shall be forwarded by DOH to DOGM.

Mr. Kenneth Alkema
ACT/007/011
March 21, 1984
Page Two

4. Within two weeks of receipt by DOGM of the mining operator's submission and any additional information requested, each DOH bureau shall contact the DOGM with preliminary written notification of the status of any outstanding permits or approvals. If DOH determines to reject the operator's permit application or has any major problems with the operator's mine plan, the DOGM may convene a conference between the state agencies and the operator as soon as possible.
5. The DOH will make every effort to have their response to the mine plan and any other DOH permits and approvals finally completed within 60 days of the DOH receipt for the operator's complete application for DOH permits and approvals.

The Division appreciates your cooperation and asks that all comments and communications, regarding the mining and reclamation plan review, be channeled through this office to allow a single set of stipulations and requirements to be sent to the operator. If you have any questions, please contact me or Susan Linner of my staff.

Sincerely,



James W. Smith, Jr.
Coordinator of Mined
Land Development

JWS/LMK:btb

Enclosure
00470

RECEIVED

MAR 31 1984

File ACT/0071011
Folder #2

3482.1(c)
SL-025431
(U-921)

DIVISION OF
OIL, GAS & MINING

March 16, 1984

Memorandum

To: Utah Senior Project Manager, OSM, Denver

Attention: Ms. Sarah Bransom

From: Chief, Branch of Mining Law & Solid Minerals

Subject: United States Fuel Company, Hiawatha Complex,
Carbon and Emery Counties, Utah, Mining and
Reclamation Plan (MRP)

Memorandum dated May 18, 1981, outlined our concerns for the original four-volume subject MRP submittal. Since that time, supplemental information and data to the MRP have been received in this office at different times. The supplemental data and information consisted of the following:

1. Your letter dated August 10, 1983, forwarding three volumes of responses to State and OSM Apparent Completeness Review. Received August 19, 1983.
2. Your letter dated October 18, 1983, forwarding one map and some pages to revise the permit application. This revision proposed construction of two portals and a belt line. Received October 24, 1983.
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4. Your letter dated January 18, 1984, forwarding a 2-inch thick packet of maps and pages of revisions (January 9, 1984) to the "Response to Determination of Adequacy," dated November 7, 1983.

The total submittal, as of March 9, 1984, has been analyzed and reviewed for completeness and technical adequacy. Information and data related to the underground mining part of the subject plan appears to be in compliance with 43 CFR 3482.1(3) rules and regulations except for the following:

1. The August 30, 1982, version of 30 CFR 211.10(b) and (c) rules and regulations required all resource recovery and protection plans (R2P2) submitted but not approved to be revised to comply with the revised rules and regulations. These rules have been recodified as 43 CFR 3482.1(b) and (c).

By letter dated October 12, 1982, we informed U.S. Fuel Company of the new requirements.

We attempted to minimize the company efforts to revise its pending permit application to comply with the new regulations by permitting the company to furnish any additional data or information that may be required and by allowing the company to provide us with a cross-reference between the new rules and current permit application package. We attached to the October 12, 1982, letter a checklist used by our office for reviewing, "Resource Recovery and Protection Plans." The checklist was to assist the company in its review and to provide a suggested format for the preparation of a cross-reference. The checklist was not submitted.

We again are enclosing a copy of our checklist and suggest it be used as a format for a cross-reference which is a requirement of BLM when the R2P2 is not a separate identifiable part of the mining and reclamation plan or the permit application package.

2. Plate III-4 in the volume titled, "Apparent Completeness Review Response, July 1983" is not an acceptable method of sealing portals. In lieu of a revised plate the company may state in the plan that no coal will be abandoned on a Federal lease without first obtaining an approval from BLM. The specific abandonment procedures can be reviewed at the time of the abandonment.

13/8 Gordon Whitney
Acting

Enclosures

cc: Moab District
 ✓ DOGM
 U.S. Fuel Company

bcc: McKean (2) ✓
 Solids Chron
 Solids File
 Pockets (U-942)
 DSD/MR

U-921:JBMckean:jw:3/16/84:3012
 USE

Coal Mine _____ Mine Plan Date _____ Date Received _____

Current Resource Recovery and Protection Plan Approval Date _____

| 3482.1(c) Regulation | Separate Items | Included In Plan | Adequate | Comments |
|---|---------------------|------------------|----------|----------|
| (1) Names, addresses, and telephone numbers of persons responsible for operations to be conducted under the approved plan to whom notices and orders are to be delivered; names and addresses of operators/lessees; Federal lease serial numbers; Federal license serial numbers, if appropriate and names and addresses of surface and subsurface coal or other mineral owners of record, if other than the United States. | Operations | | | |
| | Lessees | | | |
| | Lease Numbers | | | |
| | Surface Owners | | | |
| | Mineral Owners | | | |
| | Lease Numbers | | | |
| | MSHA I.D. # | | | |
| (2) A general description of geologic conditions and mineral resources, with appropriate maps, within the area where mining is to be conducted. | Geologic Conditions | | | |
| | Mineral Resources | | | |
| | Maps | | | |
| (3) A description of the proposed mining operation, including: (i) Sufficient coal analyses to determine the quality of the minable reserve base in terms including, but not limited to, Btu content on an as-received basis, ash, moisture, sulphur, volatile matter, and fixed carbon content. | Coal Analyses | | | |
| | Coal Quality | | | |
| | Btu | | | |
| | Ash | | | |
| | Moisture | | | |
| | Sulphur | | | |
| | Volatile Matter | | | |
| | Fixed Carbon | | | |

* The Resource Recovery and Protection Plan under 43 CFR 3482.1(c) provides for the requirements of the Mineral Leasing Act (MLA) and shall be submitted to the appropriate BLM District as required under 3482.1(b).

| 3482.1(c)(3) Regulation | Separate Items | Included In Plan | Adequate | Comments |
|--|-------------------------|------------------|----------|----------|
| (ii) The methods of mining and/or variation of methods, basic mining equipment and mining factors including, but not limited to, mining sequence, production rate, estimated recovery factors, stripping ratios, highwall limits, and number of acres to be affected. | Mining Methods | | | |
| | Mining Equipment | | | |
| | Mining Sequence | | | |
| | Production Rate | | | |
| | Stripping Ratios | | | |
| | Highwall Limits | | | |
| | Acres Affected | | | |
| (iii) An estimate of the coal reserve base, minable reserve base, and recoverable coal reserves for each Federal lease included in the resource recovery and protection plan. If the resource recovery and protection plan covers an LMU, recoverable coal reserves will also be reported for the non-Federal lands included in the resource recovery and protection plan. | For each Fed. lease | | | |
| | For LMU | | | |
| | Coal Reserve Base | | | |
| | Minalbe Reserve Base | | | |
| | Recov. Coal Reserves | | | |
| | | | | |
| (iv) The method of abandonment of operations proposed to protect the unmined recoverable coal reserves and other resources. | Protect Coal Reserves | | | |
| | Protect Other Resources | | | |
| (4) Maps and cross sections as follows: (i) A plan map of the area to be mined showing the following: (A) Federal lease boundaries and serial numbers; (B) LMU boundaries, if applicable; (C) Surface improvements, and surface ownership and boundaries; | Plan Map(s) | | | |
| | A | | | |
| | B | | | |
| | C | | | |
| | | | | |

| 3482.1(c)(4)(i) Regulation | Separate Items | Included In Plan | Adequate | Comments |
|---|----------------------------|---------------------|----------|----------|
| (D) Coal outcrop showing dips and strikes; and, (E) Locations of existing and abandoned surface and underground mines. | D | | | |
| | E | | | |
| | | | | |
| (ii) Isopach maps of each coal bed to be mined and the overburden and interburden. | Coal Isopach Maps | | | |
| | Overburden | | | |
| | Interburden | | | |
| (iii) Typical structure cross sections showing all coal contained in the coal reserve base. | Cross Sections | | | |
| | | | | |
| (iv) General layout of proposed surface or strip mine showing: (A) Planned sequence of mining by year for the first 5 years, thereafter in 5-year increments for the remainder of mine life; (B) Location and width of coal fenders; and, (C) Cross sections of typical pits showing highwall and spoil configuration, fenders, if any, and coal beds. | Gen. Layout Surface | | | |
| | A | | | |
| | B | | | |
| | C | | | |
| (v) General layout of proposed underground mine showing: (A) Planned sequence of mining by year for the first 5 years, thereafter in 5-year increments for the remainder of mine life; (B) Location of shafts, slopes, main development entries and barrier pillars, panel development, bleeder entries, and permanent barrier pillars; | General Layout Underground | | | |
| | A | | | |
| | B | | | |

| 3482.1(c)(4)(v) Regulation | Separate Items | Included In Plan | Adequate | Comments |
|--|------------------|---------------------|----------|----------|
| <p>(C) Location of areas where pillars will be left and an explanation why these pillars will not be mined;</p> <p>(D) A sketch of a typical entry system for main development and panel development entries showing centerline distances between entries and crosscuts;</p> <p>(E) A sketch of typical panel recovery (e.g., room and pillar, longwall, or other mining method) showing, by numbering such mining, the sequence of development and retreat.</p> | C | | | |
| | D | | | |
| | E | | | |
| | | | | |
| <p>(vi) For auger mining:</p> <p>(A) A plan map showing the area to be auger mined and location of pillars to be left to allow access to deeper coal;</p> <p>(B) A sketch showing details of operations including coal bed thickness, auger hole spacing, diameter of holes and depth or length of auger holes.</p> | Auger Mining | | | |
| | A | | | |
| | B | | | |
| <p>(5) A general reclamation schedule for the life-of-the-mine. This should not be construed as meaning duplication of a permit application in a permit application package under SMCRA. The resource recovery and protection plan may cross-reference, as appropriate, a permit application submitted under SMCRA to fulfill this requirement.</p> | General Schedule | | | |
| | Included | | | |
| | Cross-Referenced | | | |
| | | | | |

| 3482.1(c)(6) Regulation | Separate Items | Included In Plan | Adequate | Comments |
|--|----------------|---------------------|----------|----------|
| <p>(6) Any required data which are clearly duplicated in other submittals to the regulatory authority or Mine Safety and Health Administration may be used to fulfill the requirements of the above paragraphs provided that the cross-reference is clearly stated. A copy of the relevant portion of such submittals must be included in the resource recovery and protection plan.</p> | MSHA Approvals | | | |
| | Included | | | |
| | | | | |
| <p>(7) Explanation of how MER of the Federal coal will be achieved for the Federal coal leases included in the resource recovery and protection plan. If a coal bed, or portion thereof, is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification to the District Mining Supervisor for approval.</p> | MER | | | |
| | | | | |
| | | | | |

ADDITIONAL COMMENTS

| Regulation | Separate Items | Included In Plan | Adequate | Comments |
|------------|----------------|---------------------|----------|----------|
| | | | | |

RECEIVED

MAR 19 1984

3482.1(c)
SL-025431
(U-921)

Sae
File Act/007/011
#2

DIVISION OF
OIL, GAS & MINING

March 16, 1984

Memorandum

To: Utah Senior Project Manager, OSM, Denver

Attention: Ms. Sarah Branson

From: Chief, Branch of Mining Law & Solid Minerals

Subject: United States Fuel Company, Hiawatha Complex,
Carbon and Emery Counties, Utah, Mining and
Reclamation Plan (MRP)

Memorandum dated May 18, 1981, outlined our concerns for the original four-volume subject MRP submittal. Since that time, supplemental information and data to the MRP have been received in this office at different times. The supplemental data and information consisted of the following:

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13/ Gordon Whitney
Acting

Enclosures

cc: Moab District
DOGM ✓
U.S. Fuel Company

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

March 2, 1984

JIM
MAR 05 1984

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Dear Mr. Smith:

United States Fuel Company has received your letter dated February 28, 1984 regarding the Determination of Completeness of their permit application package. The advertisement, as required under UMC 786.11 (a), will be published in local newspapers of the general area for the required time period. Please find enclosed a copy of the public notice to be published.

Sincerely,



Jean Semborski
Engineer

Enclosure



LEGAL NOTICE

United States Fuel Company, P.O. Box A, Hiawatha, Utah 84527, pursuant to Utah Mining Code 786, promulgated under UCA 40-10-1, has submitted an "apparently complete" Mining and Reclamation Plan for the King Mines. United States Fuel Company's permit application number is ACT 007/011.

The King Mines permit area is located approximately 25 miles south-west of Price, Utah via U.S. Hwy. 10 and State Hwy. 122.

The following described lands are contained on the U.S. Geological Survey 7.5 minute Hiawatha quadrangle map.

TOWNSHIP 15 S., RANGE 7 E.

Sec. 13 S $\frac{1}{2}$

Sec. 24 all

Sec. 25 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$

Sec. 36 E $\frac{1}{2}$

TOWNSHIP 15 S., RANGE 8 E.

Sec. 17 SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ portion

All of sections: 18, 19, 20 & 21

Sec. 26 W $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 27 SE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$

All of sections: 28, 29, 30, 31, 32 & 33

Sec. 34 NE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Sec. 35 NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$

TOWNSHIP 16 S., RANGE 7 E.

Sec. 1 E $\frac{1}{2}$

Sec. 12 NE $\frac{1}{4}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ W $\frac{1}{2}$

Sec. 13 E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

TOWNSHIP 16 S., RANGE 8 E.

Sec. 3 W $\frac{1}{2}$

All of sections: 4, 5, 6, 7, 8 & 9

Sec. 10 S $\frac{1}{2}$ S $\frac{1}{2}$

Sec. 11 S $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 15 W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$

All of sections: 16, 17 & 18

Sec. 19 N $\frac{1}{2}$ N $\frac{1}{2}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$

Sec. 20 NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Sec. 21 NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 22 NW $\frac{1}{4}$ NW $\frac{1}{4}$

A copy of the application is available for inspection at the following locations:

Carbon County Courthouse, Price, Utah 84501
Emery County Courthouse, Castle Dale, Utah 84513

Written comments, objections or requests for informal conferences may be submitted under Sec. UMC 786.12-786.14 to:

Utah Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Office of Surface Mining
Reclamation and Enforcement
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Published in the Sun Advocate February 22, 29,
March 7 and 14, 1984.



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

File ACT/007/01, Folder #2
Copy to Sue

MAR 2 1984

RECEIVED
MAR 5 1984

DIVISION OF
OIL, GAS & MINING

Mr. Harold Marston
Carbon County Planner
Planning and Zoning Department
Carbon County Courthouse
Price, Utah 84501

Dear Mr. Marston:

This letter is a follow-up to your conversation with Sarah Bransom regarding the incorporated boundaries of the Town of Hiawatha. As illustrated in the enclosed document, the Town of Hiawatha has agreed to accept the responsibility to maintain certain roads after the U. S. Fuel Company ceases mining (please see attached figure).

This office is attempting to gather the following information regarding this arrangement:

1. It appears from the legal description you provided on March 1, 1984 regarding the incorporated boundaries of the Town of Hiawatha, that certain roads are not included in the municipality. Does this affect the ability of Hiawatha to accept responsibility for these roads?
2. In accordance with County and state law and/or policies, what kind of legal agreement is necessary to transfer private roads to incorporated communities for public use (e.g. deed, plat, etc.)? Is the attached agreement adequate?
3. What is Carbon County's role, if any, in this agreement?

Any information you can provide regarding this matter will be appreciated. If you have any questions, please contact Sarah Bransom at (303) 837-3806.

Sincerely,

Stephen F. Manger
Utah Task Force Leader

Enclosure

cc: Susan Lineer, DOGM

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

March 2, 1984

JIM
MAR 05 1984

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Dear Mr. Smith:

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Sincerely,

Jean Semborski

Jean Semborski
Engineer

Enclosure



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Sec. 24 all

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Sec. 17 SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ portion

All of sections: 18, 19, 20 & 21

Sec. 26 W $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 27 SE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$

All of sections: 28, 29, 30, 31, 32 & 33

Sec. 34 NE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Sec. 35 NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$

TOWNSHIP 16 S., RANGE 7 E.

Sec. 1 E $\frac{1}{2}$

Sec. 12 NE $\frac{1}{4}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ W $\frac{1}{2}$

Sec. 13 E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

TOWNSHIP 16 S., RANGE 8 E.

Sec. 3 W $\frac{1}{2}$

All of sections: 4, 5, 6, 7, 8 & 9

Sec. 10 S $\frac{1}{2}$ S $\frac{1}{2}$

Sec. 11 S $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 15 W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$

All of sections: 16, 17 & 18

Sec. 19 N $\frac{1}{2}$ N $\frac{1}{2}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$

Sec. 20 NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Sec. 21 NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 22 NW $\frac{1}{4}$ NW $\frac{1}{4}$

A copy of the application is available for inspection at the following locations:

Carbon County Courthouse, Price, Utah 84501
Emery County Courthouse, Castle Dale, Utah 84513

Written comments, objections or requests for informal conferences may be submitted under Sec. UMC 786.12-786.14 to:

Utah Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Office of Surface Mining
Reclamation and Enforcement
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Published in the Sun Advocate February 22, 29,
March 7 and 14, 1984.

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

To Sue
File ACT/008/001, Folder #2#6
copy to Sue

March 2, 1984

JIM
MAR 05 1984

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

RECEIVED
MAR 5 1984

DIVISION OF
OIL, GAS & MINING

Dear Mr. Smith:

United States Fuel Company has received your letter dated February 28, 1984 regarding the Determination of Completeness of their permit application package. The advertisement, as required under UMC 786.11 (a), will be published in local newspapers of the general area for the required time period. Please find enclosed a copy of the public notice to be published.

Sincerely,

Jean Semborski

Jean Semborski
Engineer

Enclosure



LEGAL NOTICE

United States Fuel Company, P.O. Box A, Hiawatha, Utah 84527, pursuant to Utah Mining Code 786, promulgated under UCA 40-10-1, has submitted an "apparently complete" Mining and Reclamation Plan for the King Mines. United States Fuel Company's permit application number is ACT 007/011.

The King Mines permit area is located approximately 25 miles south-west of Price, Utah via U.S. Hwy. 10 and State Hwy. 122.

The following described lands are contained on the U.S. Geological Survey 7.5 minute Hiawatha quadrangle map.

TOWNSHIP 15 S., RANGE 7 E.

Sec. 13 S $\frac{1}{2}$

Sec. 24 all

Sec. 25 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$

Sec. 36 E $\frac{1}{2}$

TOWNSHIP 15 S., RANGE 8 E.

Sec. 17 SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ portion

All of sections: 18, 19, 20 & 21

Sec. 26 W $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 27 SE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$

All of sections: 28, 29, 30, 31, 32 & 33

Sec. 34 NE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Sec. 35 NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$

TOWNSHIP 16 S., RANGE 7 E.

Sec. 1 E $\frac{1}{2}$

Sec. 12 NE $\frac{1}{4}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ W $\frac{1}{2}$

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Sec. 3 W $\frac{1}{2}$

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Sec. 11 S $\frac{1}{2}$ SW $\frac{1}{4}$

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Salt Lake City, Utah 84114

Office of Surface Mining

Reclamation and Enforcement

Brooks Towers

1020 15th Street

Denver, Colorado 80202

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RECEIVED

MAR 5 1984

**DIVISION OF
OIL, GAS & MINING**

10 Sue
File ACT/037/011, Folder #12 #6
copy to Sue

UNITED STATES FUEL COMPANY

HIAWATHA, UTAH 84527

March 2, 1984

JIM
MAR 05 1984

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

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Sec. 1 E $\frac{1}{2}$

Sec. 12 NE $\frac{1}{4}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ W $\frac{1}{2}$

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Sec. 3 W $\frac{1}{2}$

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Sec. 10 S $\frac{1}{2}$ S $\frac{1}{2}$

Sec. 11 S $\frac{1}{2}$ SW $\frac{1}{4}$

Sec. 15 W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$,

SW $\frac{1}{4}$ NE $\frac{1}{4}$

All of sections: 16, 17 & 18

Sec. 19 N $\frac{1}{2}$ N $\frac{1}{2}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$

Sec. 20 NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$,

SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Sec. 21 NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$

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Denver, Colorado 80202

Published in the Sun Advocate February 22, 29,
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RECEIVED
MAR 7 1984

copy To Sue
File ACT/007/011, #2



DCED

SCOTT M. MATHESON
GOVERNOR

STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

March 2, 1984

DIVISION OF
OIL, GAS & MINING

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101-1182
TELEPHONE 801/533-5755

James W. Smith, Jr.
Coordinator of Mined Land Development
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

JIM

MAR 07 1984

Attn: Susan Linner

RE: MRP Addendum, U.S. Fuel Company, Hiawatha Complex, ACT/007/011,
Folder No. 2, Carbon County, Utah

In Reply Refer To: Case No. E409

Dear Mr. Smith:

The Utah Preservation Office has received for consideration a copy of the MRP Addendum for the U. S. Fuel Company, Hiawatha Complex. After review of the material provided, our office notes that an outline of my proposals was made by U. S. Fuels to OSM as to how they were going to comply with historic preservation regulations. At this time, to our knowledge, U. S. Fuels has submitted the reports that they have listed, and our office has confirmed that a contract is pending with Brigham Young University for the additional surveys that OSM has requested.

Our office feels that the procedures being undertaken by U. S. Fuel Company will satisfy the Office of Surface Mining regulations, as well as federal law concerning protection of cultural resources in relation to the Hiawatha Complex. Our office has no further comments at this time, but wishes to be informed of any development concerning the Hiawatha Complex, as this mine plan is developed.

Since no formal consultation request concerning eligibility, effect or mitigation as outlined by 36 CFR 800 was indicated by you, this letter represents a response for information concerning location of cultural resources. If you have any questions or concerns, please contact me at 533-7039.

Sincerely,

James L. Dykman
Cultural Resource Advisor

JLD:jrc:E409/0165V