



# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

BRIAN STEED  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

September 24<sup>th</sup>, 2019

Elliot Finley, Resident Agent  
Hiawatha Coal Company  
P.O. Box 1240  
Huntington, Utah 84528

Subject: Completion of Midterm Review, Task #5975, Hiawatha Coal Company, Hiawatha Mine, C/007/0011

Dear Mr. Finley:

On July 31<sup>st</sup>, 2019, Hiawatha Coal Company was informed that the Division of Oil, Gas and Mining (the Division) had commenced a midterm permit review for the Hiawatha Mine.

The midterm review has been completed and will now be closed. However; the Division has identified deficiencies that must be addressed. The findings and deficiencies have been included with this letter (See Attached). The name of the author for each of the deficiencies has been provided in order to facilitate communication with you and your staff.

Your response to these deficiencies will need to be submitted as an amendment to the Hiawatha Mines Mining and Reclamation Plan (MRP). The amendment will be processed as a separate task. Please submit the amendment with the accompanying C1 and C2 forms by no later than November 1<sup>st</sup>, 2019.

If you have any questions, please don't hesitate to contact me. (801) 538-5350, [stevechristensen@utah.gov](mailto:stevechristensen@utah.gov).

Sincerely,

Steve Christensen  
Coal Program Manager





## Technical Analysis and Findings

### Utah Coal Regulatory Program

**PID:** C0070011  
**TaskID:** 5975  
**Mine Name:** HIAWATHA MINE  
**Title:** MIDTERM PERMIT REVIEW

### General Contents

#### Identification of Interest

##### *Analysis:*

The application does not meet the State of Utah R645-301-112 requirements for Identification of Interest.

In Section R645-301-112 of the MRP multiple individuals are named as officers authorized to act on behalf of the various companies affiliated with the mine. However, the relationship between the companies involved with the Hiawatha Mine Complex—namely ANR, Co-Op, C. W. Mining, HCCI, and U.S. Fuel Company—is not made clear. An organizational hierarchy which identifies each individual's ownership or control relationship to the applicant, including percentage of ownership and location in the organizational structure is required. An organization chart detailing companies, and individuals within the companies, with interest in the site and including percent ownership for each entity is recommended as an efficient way to convey the required information.

Section R645-301-112.400 of the MRP states that permits held by U.S. Fuel Company "have all been assigned to and are being transferred to HCCI." This statement, last incorporated to the MRP in 2002, must be updated to reflect the current status of those mining permits. The position of U.S. Fuel Company relating to ownership of the mine must also be clarified.

##### *Deficiencies Details:*

The application does not meet the State of Utah R645-301-112 requirements for Identification of Interest. The following deficiencies must be addressed prior to final approval:

R645-301-112.320: The Permittee must provide an organizational hierarchy which identifies each individual's ownership or control relationship to the Permittee, including percentage of ownership and location in the organizational structure.

R645-301-112: The Permittee must clarify Section R645-301-112.400 of the MRP and its associated Table I-1. It is unclear why this information is included under this section of the MRP as Section R645-301-112.400 of the Utah Administrative Code relates to coal mining and reclamation operations owned or controlled by the applicant or by any person who owns or controls the applicant. Is U.S. Fuel Company owned by HCCI? The narrative must also be updated to reflect the current status of permits transferred from U.S. Fuel Company to HCCI as the MRP states that the permits "are being transferred" as of 2002.

tmiller

#### Violation Information

##### *Analysis:*

The application does not meet the State of Utah R645-301-113 requirements for Violation Information.

Violation information cannot be determined until the ownership and control of the mine is clarified as part of the identification of interest requirements.

*Deficiencies Details:*

The application does not meet the State of Utah R645-301-113 requirements for Violation Information. The following deficiency must be addressed prior to final approval:

R645-301-113: The Permittee must clarify and update the ownership and control under section R645-301-112 in order for the Division to determine violation information.

tmiller

## Right of Entry

*Analysis:*

The application does not meet the State of Utah R645-301-114 requirements for Right of Entry. Chapter 1, Section R645-301-114.100 (p. 7) of the MRP states that HCCI executed a ten-year lease agreement with ANR effective July 26, 1997 which provided HCCI with legal right of entry to the property and the coal leases in the permit area. That lease agreement was set to expire on July 25, 2007. Updated information regarding this lease including the status of coal leases SL-025431, SL-069985, U-026583-058261, and U-51923 along with any other leases associated with the Hiawatha Mine Complex must be included in the MRP.

*Deficiencies Details:*

The application does not meet the State of Utah R645-301-114 requirements for Right of Entry. The following deficiency must be addressed prior to final approval:

R645-301-114.100: The Permittee must update the lease agreement information in Chapter 1, Section R645-301-114.100 (p. 7) of the MRP to reflect their current legal right of entry.

tmiller

## Legal Description

*Analysis:*

The application does not meet the State of Utah R645 requirements for current information, because statements regarding disturbed area require clarification and must be updated.

The Division records indicate that there are 197 disturbed acres remaining in the Hiawatha disturbed area. The total Phase III bond release to date is 93.27 acres.

The MRP pages 2-36 and 2-37 list the reclamation areas and states the remaining disturbed area as 14.8 acres in Middle Fork; 12.6 acres disturbed area in South Fork; and 134.69 disturbed acres in the Hiawatha area. An additional 56.75 acres is disturbed for non-refuse (p. 2-41). This Chapter II listing of remaining disturbed area totals 218.84 acres.

MRP Table II-13 (p. 2-42), Reclamation Area Topsoil Volumes, lists the remaining acreage by Reclamation Area. The sum of acreage in Table II-13 is 155.41 disturbed acres. (A row for the total acreage should be added to this table.)

The MRP Section 333 reports a total of 360 disturbed acres, of which, 112 acres is the town, roads and railroads that will not be reclaimed (Sec. 333, p. 3-36, incorporated 01/31/09), leaving approximately 250 acres to be reclaimed. Section 333 further states that an additional 53 acres may be disturbed for topsoil borrow operations (p. 3-36).

Statements in Chap II, p. 2-36, 2-37, 2-41, and 2-42 and Chap III, p. 3-36 regarding disturbed area must be updated with current information.

*Deficiencies Details:*

The application does not meet the R645-301-121.100, current information requirements. The following deficiency must be addressed prior to final approval:

R645-301-121.100, 1) Statements in Chap II, p. 2-36, 2-37, 2-41, and 2-42 and Chap III, p. 3-36 regarding disturbed area must be updated. 2) Please add row for total disturbed acreage to Table II-13 and ensure that it agrees with the

current disturbed area figure.

pburton

## Permit Term

### Analysis:

The application does not meet the State of Utah R645-301-116 requirements for Permit Term. Chapter 1, Section R645-301-116.100 (p. 8) refers the reader to Table I-2 on the following page. In accordance with R645-301-523, Table I-2 lists mining methods and estimated productivity for 3 mines: King 4 (A seam and B seam), King 5, and King 6. With the mine in temporary cessation (Incoming 10/28/2010), the King 4 mine having received Phase III bond release for the vent portal in 2016 (see Task #5114), and anticipating potential changes to resource recovery plans, Table I-2 must be updated to reflect the current phases, methods, and productivity.

### Deficiencies Details:

The application does not meet the State of Utah R645-301-116 requirements for Permit Term. The following deficiency must be addressed prior to final approval:

R645-301-116 and R645-301-523: The Permittee must update Table I-2, cited in Ch. 1, Section R645-301-116.100 (p. 8) of the MRP, to reflect the current status of phases for mining and reclamation activities for each of the mines.

tmiller

## Permit Application Format and Contents

### Analysis:

The application does not meet the State of Utah requirements for Permit Application Format and Contents.

A review of Chapter 5 reveals that there are two different appendices labeled 5-17. One Appendix 5-17 is Subsidence Data Analysis, and the other is Pond 5A Temporary Haul Road data. To avoid potential confusion the Appendix numbers should be changed and the Table of Contents updated.

### Deficiencies Details:

The application does not meet the State of Utah requirements for Permit Application Format and Contents. The following deficiency must be addressed prior to final approval:

R645-301-121.200: Please renumber the appendices in Chapter 5 to ensure there are no duplicate appendix headings and update the Table of Contents to reflect the changes.

jeatchel

## Environmental Resource Information

### Vegetation Resource Information

#### Analysis:

The application does not meet the State of Utah R645-301-320 requirements for Vegetation Resource Information. During the midterm inspection on Sept. 4, 2019, all six reference areas were observed. Table III-9 in Chapter 3, Section R645-301-341.250 (p. 59) of the MRP lists the reference areas, their vegetation type, and the disturbed area associated with each. None of the areas have GPS coordinates listed in the MRP, something the Division recommends.

Of the 6 reference areas, SBR3 and PJR4 were observed to be in good condition with no off-site impacts. Area RR9 was located and observed to be in good condition with no off-site impacts, however it was not marked in the field, as is recommended. Area SBR12, a sagebrush reference area, was observed but it appeared to have been encroached upon by pinyon-juniper vegetation. A letter from NRCS is contained in Appendix 3-3 of Ch. 3 of the MRP detailing observations of some of the reference areas during a visit in 1997. Area SBR12 was listed as being in "Fair" condition at that time. Area MCR2 was observed but it had been completely destroyed by the Seeley fire that burned in the area in 2012. Area MBR1 is in the same vicinity but appears to have largely escaped impact from the fire, although its entire boundary could not be determined in the field.

In light of the time that has elapsed and the damaged caused by wildfire, areas MCR2, SBR12, and MBR1 must be re-evaluated by a qualified botanist to ensure they are representative of the desired success standards for revegetation of

disturbed areas. It was also discussed during the midterm inspection the potential to change the post-mining land use for portions of the property. Such a change should be initiated prior to evaluation and selection of any reference area as the post-mining land use may affect what reference areas are needed. It is furthermore recommended that the Permittee add field markers for sites RR9 and MBR1 as well as GPS coordinate information into the MRP for all reference areas.

#### *Deficiencies Details:*

The application does not meet the State of Utah R645-301-320 requirements for Vegetation Resource Information. The following deficiency must be addressed prior to final approval:

R645-301-320: The Permittee must provide updated, quantitative analysis for reference area SBR12. The Permittee must also propose a new reference area to replace MCR2. An in-depth analysis of area MBR1 must also be performed to determine any possible impact from the 2012 Seeley fire. The Permittee must also update Table III-9 of Ch. 3 to reflect changes brought about by previous reclamation and Phase III bond releases. It is recommended that if the Permittee desires to change the post-mining land use, that this is done prior to selection of a new reference area. It is also recommended that the Permittee include GPS coordinate information for each reference area in the MRP.

trmiller

## **Operation Plan**

### **Topsoil and Subsoil**

#### *Analysis:*

The Mining and Reclamation Plan does not meet the State of Utah R645 requirements for current information because five topsoil stockpiles are described in Chap II Section 231.400, p. 2-31. All but two have been consumed in reclamation activity. In addition flood wash sediments stockpiled in Middle Fork should be assessed for reclamation potential. Chap II, Table II-12, Topsoil and Topsoil Borrow Volumes, shows the location and volume of the two remaining topsoil storage piles at the site. There is 354 CY in the Middle Fork stockpile and 1,206 CY in the South Fork stockpile (p 2-33, e-p 39). Finally, the Mining and Reclamation Plan does not meet the State of Utah R645 requirements for substitute topsoil protection of the Upper Rail Yard substitute topsoil site, because of gun range activity at the site.

The Middle Fork stockpile is described on p. 2-26 and p.2-31. The circular Middle Fork stockpile is 50 ft. in diameter and four feet high. Protection of the pile is described in MRP Section 231.400, p. 31 (e-MRP Chap II p. 37). The pile is protected by a berm/ditch.

Stockpiles were vegetated with the interim mix found in Attachment 1 of App. III-4 (p. 2-31, e-p 37)). [Attachment 1 could not be found, but a long list of seed mixes are described in Appendix B of App. III-4.] The Chap III, Section 331, p. 3-23 (e- p. 29) describes a simple mix of intermediate wheat grass and alfalfa for topsoil stockpiles. During the mid-term inspection on 9/4/2019., the South Fork topsoil stockpile was observed to be a vegetated with climax vegetation of sagebrush. Both South Fork and the Middle Fork had been heavily grazed.

An uncertain volume of flood wash sediments is stockpiled and bermed in Middle Fork (Chap II, p. 2-4). Please update page 2-4 and Table II-12 and Section 231.400 of the MRP with the volume of this stockpile available for reclamation use and ensure that the stockpile is signed and seeded with the interim mix.

Substitute topsoil locations are outlined on Exhibits II-4A (Hiawatha Processing plant & Waste Disposal Areas), II-4B (South Fork), II-4C (Middle Fork) and II-5. Substitute topsoil characteristics are described in Appendix II-3. In Middle Fork, substitute topsoil location B (0.6 acres) was severely eroded.

Substitute topsoil borrow areas are shown on Ex. II-4A and described on p. 2-38, 2-40 through 2-44. One such borrow area is RA-13, the Upper Rail Yard (URY), which will be the source of 75,543 CY of borrow soil. During the mid-term inspection it was noted that the URY is being used as a gun range. The protection of substitute topsoil in the URY is described in Chap 2, p. 2-38. It states that prior to any post mining activity that would significantly harm or destroy the topsoil resources, the upper 1.5 feet of topsoil and subsoil will be removed from the areas and stockpiled and protected. Consequently, the Permittee must explain how gun range management practices protect the topsoil from potential lead contamination or remove and stockpile 1.5 feet of soil from the area. The explanation might include frequency of use, quantity of lead and the characteristics of the soil (texture & pH), and frequency of clean up. Lead quantity can be estimated by the number of rounds fired annually or by the numbers of pounds of lead/sq foot accumulation over time. The description of management practices might follow those outlined by the EPA at this website <https://www.epa.gov/lead/best-management-practices-lead-outdoor-shooting-ranges> . Secondly, the Permittee must

add a commitment on page 2-41 to analyze the topsoil for lead before soil salvage. The number of samples, sample location, and soil increments to be sampled should be specified.

*Deficiencies Details:*

The application does not meet the R645-301-121.100, current information and R645-301-233 substitute topsoil requirements. The following deficiency must be addressed prior to final approval:

R645-301-121.100, 1) Five topsoil stockpiles are described in Chap II Section 231.400, p. 2-31. All but two have been consumed in reclamation activity. Please update the narrative accordingly. 2) An uncertain volume of flood wash sediments is stockpiled and bermed and available for reclamation in Middle Fork. Please update the narrative on pages 2-4 , p. 2-25 and Table II-12 and Section 231.400 of the MRP with the volume of this stockpile available for reclamation use and ensure that the stockpile is signed and seeded with the interim mix.

R645-301-233.100, The protection of substitute topsoil in the URY is described in Chap 2, p. 2-38. It states that prior to any post mining activity that would significantly harm or destroy the topsoil resources, the upper 1.5 feet of topsoil and subsoil will be removed from the areas and stockpiled and protected. Consequently, the Permittee must explain how gun range management practices protect the topsoil from potential lead contamination or remove and stockpile 1.5 feet of soil from the area. The explanation might include frequency of use, quantity of lead and the characteristics of the soil (texture & pH), and frequency of clean up. Lead quantity can be estimated by the number of rounds fired annually or by the numbers of pounds of lead/sq foot accumulation over time. The description of management practices might follow those outlined by the EPA at this website <https://www.epa.gov/lead/best-management-practices-lead-outdoor-shooting-ranges> .

R645-301-233.200.The Permittee must add a commitment on page 2-41 to sample and analyze the Upper Rail Yard soils for lead prior to salvage. The commitment should specify the number of samples, sample location, and soil increments to be sampled.

pburton

## Hydrologic General

*Analysis:*

The MRP meets the State of Utah R645 rules for Hydrology.

The water monitoring program for the Hiawatha mine is found in Table 7-17 of the approved MRP. This table defines the sites to be monitored and their frequency. Currently there are 10 stream locations being monitored April through October, in addition to the monitoring locations required by the Permittees UPDES permit. There are 6 spring locations that have been suspended from the monitoring plan since 2009, due to no mining taking place. The Permittee has committed to re-activating these spring monitoring sites 2 years prior to any future mining so that baseline data can be re-established.

adaniels

## Reclamation Plan

### Topsoil and Subsoil

*Analysis:*

The Mining and Reclamation Plan does not meet the requirements of the Utah Coal Rules for clear and concise and current information regarding topsoil redistribution because the plan must designate a location for the redistribution of the Middle Fork topsoil stockpile and flood sediments in Table II-13, Reclamation Area Topsoil Volumes, and because the RA-1 acreage reclaimed in RA-1 is not clear. In addition, the plan does not meet the requirements of the Utah Coal Rules for references cited because the referenced Attachments A, B & C are missing from the MRP Appendix II-4, soils report, dated 1997.

Substitute topsoil locations are shown on Ex. II-4B & C and Ex II-5. The quality of the substitute topsoil is described in Appendix II-3. Table II-13 itemizes the remaining disturbed area, source and volume of substitute topsoil and topsoil replacement depths. Table II-13 (p. 2-42) does not list the 340 CY of Middle Fork stockpile for use. Apparently designated for Middle Fork, this topsoil could provide a little more cover over RA 17 (South Fork Coal Loadout) or any location. Table II-13 must designate a location for the redistribution of the Middle Fork topsoil stockpile. Table II-13

must designate a location for use of remaining stockpiled flood sediments described on p. 2-4.

Chapter II, Section 241 describes the following reclamation areas:

**North Fork and King IV vent portal.** Described as 1.5 acres in Sec 241, p. 2-36, but as 6.6 acres in bond release application (2016/Incoming/6212016.5114.pdf) The North Fork received Phase I bond release in 2008 (Ex II-4D) and Phase III bond release in 2016. [The Decision Document (Outgoing/2016/07072016.pdf) lists the acreage as 6.6 acres. See deficiency written under General Contents/Legal Description.]

**Middle Fork.** approximately 12 acres (Ex. II-5). Table II-13 itemizes the 11.8 acres in RA- 22 to RA-25, detailing the source of topsoil or substitute topsoil as substitute topsoil locations A, B & C (shown on Ex II-5). Together these fill areas are 4.39 acres. MRP Section 231.200 p. 2-25 (e-MRP p.31) describes the use of the surface 1.5 feet from these areas to yield 10,623 CY. This will cover the graded Middle Fork surface disturbed area with a minimum of 6 inches.

**South Fork.** 14.3 acres disturbed (Ex. II-5). Excluding the haul road, there are 12.6 acres to be reclaimed (p. 2-36, e-p.42). Table II-13 itemizes the source of cover material for RA 17 through RA 21 in South Fork. There are two sources of substitute topsoil in South Fork (sites A & B). Together this fill covers 2.62 acres. Salvage of 1.5 feet from the 2.62 acres would yield 6,340 CY to provide six inches of cover over the King VI pad area (about 7 acres) in South Fork. Sediment ponds will be reclaimed using their embankments. Similarly, the conveyor will be reclaimed with the adjacent embankment. The water tank will be reclaimed with in situ soil. The 1,206 CY stockpile will be redistributed over the coal stockpile and truck loadout (1.94 acres in RA 17).

**Hiawatha Area.** reclaimed area = 106.5 acres. Current Hiawatha disturbed area = 134.69 acres (p 2-37, e. p. 43). The table on p. 2-37 lists reclaimed Hiawatha area acreage in RA -1 through 7. The table lists 9.28 acres in RA-1 (sediment ponds and access and area along the RR tracks); 18.36 acres in RA-7 (preparation plant area); 11.59 in RA-4 (Borrow Area A). These acreages are illustrated on Ex. II-4A. The p. 2-37 table states that 19.83 acres of RA 1 have been reclaimed, however only 14.32 acres has the reclaimed hatchmarks on Ex II-4A and this hatch is not identified in the legend. The table also states that there are 9.28 acres remaining to be reclaimed in RA-1, but the remaining RA-1 affected area shown on Ex II-4A does not have acreage listing to confirm that statement.

In addition to the 39.23 acres of refuse areas remaining in RA-1 through 7, Table II-13 outlines and additional 77.14 acres in the Hiawatha area to be reclaimed as follows: 15.51 acres in RA-3 (Slurry pond 5A) and 2.87 acres in RA 8 (Equipment Yard), 17.51 acres in RA 9 (Refuse Pile #1), 19.39 acres in RA 10 (Slurry Pond No. 1), 2.82 acres in RA -11 (Ridge Borrow/Refuse), 6.38 acres in RA 12 (RR tracks West of Shop) , 9.14 acres in RA 13 (Upper Rail Storage yard), 2.01 acres in RA – 14 (Truck shop yard), and 1.51 acres in RA 15 (Runaway Truck lane).

Coal storage areas are shown on Plate V-5. During final reclamation of these areas, coal fines will be placed either in slurry pond #1 or in Slurry pond #5A (pp. 5-104 and 5-106 of Sec. 541). The proposed reclamation of Slurry Ponds 1 and 5A is described on pages 2-39 through 2-42. After grading the refuse will be ripped to a depth of 18 – 24 inches. Sampling of the graded refuse/slurry is stated on page 2-40 for acid/toxic forming materials in Slurry Pond 1 and for nutrient content in both Slurry pond 1 and Slurry pond 5A.

Sixteen inches of substitute topsoil cover will be placed over the refuse and slurry. The substitute topsoil cover may be disced or scarified. Random samples will be collected for nutrient analysis. Seed will be followed by 1 T/ac mulch either crimped into the soil or spread with a binding agent. (p. 2-40).

Cover material will come from the Lower Preparation Plant (40 inch cut), the Upper Rail Yard (approx. 5 ft cut) and surrounding Borrow Areas shown on Ex II-4A. The quality of the Borrow Area soils is described in Appendix II-4. In the course of investigating the quality of the Upper Rail Yard soils, the Division noted that Attachments A, B & C are missing from Appendix II-4, soils report.

Reclamation of RA-1 non-refuse areas (sediment ponds, borrow areas, affected area and the remaining preparation plant area) is described on p. 2-38, 2-40 through 2-44.

Slurry pond 5A is used for run-off control (pg. 5-64) and will be the last structure to be reclaimed (pg. 5-78).

#### *Deficiencies Details:*

The application does not meet the R645-301-242.100 topsoil redistribution, -121.100, current information, -121.200 clear

and concise, and -122 referenced information requirements. The following deficiencies must be addressed prior to final approval:

R645-301-121.100, Table II-13 must designate a location for use of remaining stockpiled flood sediments described on p. 2-4.

R645-301-121.200, The p. 2-37 table states that 19.83 acres of RA 1 have been reclaimed, however only 14.32 acres have a reclaimed hatchmark on Ex II-4A and this hatch is not identified in the legend. The p. 2-37 table also states that there are 9.28 acres remaining to be reclaimed in RA-1, but the remaining RA-1 affected area shown on Ex II-4A does not have acreage listing to confirm that statement. Please clarify the legend and acreage for RA-1 on Ex II-4A.

R645-301-122, The quality of the Borrow Area soils is described in Appendix II-4. In the course of investigating the quality of the Upper Rail Yard soils, the Division noted that Attachments A, B & C are missing from the MRP Appendix II-4, soils report, dated 1997. If at all possible, please provide these missing attachments.

R645-301-242.100, Table II-13 must designate a location for the redistribution of the Middle Fork topsoil stockpile.

pburton

### **Bonding Determination of Amount**

#### *Analysis:*

The application does not meet the State of Utah R645 requirements for Determination of Bonding Amount.

The reclamation cost estimate which is incorporated into the current Hiawatha Mining and Reclamation Plan has not been updated. The Permittee must provide updated information for estimated bonding costs with supporting calculations for all cost estimates with O&P applied to the direct unit costs and escalated to the date of the next midterm permit review in 2024. The updated 5-year escalation factor to be used in the bonding calculations is 2.32%.

#### *Deficiencies Details:*

The application does not meet the State of Utah R645 requirements for Determination of Bonding Amount. The following deficiency must be addressed prior to final approval:

R645-301-830: The reclamation cost estimate which is incorporated into the current Hiawatha Mining and Reclamation Plan needs to be updated. Direct unit costs used to calculate the bond estimate need to account for overhead and profit costs (O&P) and be escalated to 2024 dollars.

jeatchel