GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
BRIAN C. STEED
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

May 27, 2020

Gregg Galecki
Canyon Fuel Company, LLC
HC 35 Box 380
Helper, Utah 84526

Subject: Conditional Approval of Midterm Completion Response, Canyon Fuel Company, LLC, Skyline, C/007/0005, Task #6138

Dear Mr. Galecki:

The above-referenced amendment is approved conditioned upon receipt of 2 clean copies prepared for incorporation. Please submit these copies no later than June 10, 2020. Once we receive these copies, final approval will be granted.

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan.

If you have any questions, please call me at (385) 290-9937.

Sincerely,

Steve Christensen
Coal Program Manager

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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0070005
TaskID: 6138
Mine Name: SKYLINE MINE
Title: MIDTERM COMPLETION RESPONSE

Summary

This mid-term review response amendment includes a red-line revision of the Table of Contents for all Chapters in the Mining and Reclamation Plan; an updated reclamation bond in redline; a revision of MRP Chap 2, page 2-120m; and the addition of a new Appendix 4.17-1 Boulger Subsidence Monitoring (previously reviewed in 2019 as Task 6000 and in 2020 as Task 6055). Since Appendix 4.17-1 is an entirely new appendix to Chapter 4 of the MRP, it does not contain redline format. Appendix 4.17-1 provides the installation location, design and plan for Boulger Dam seismic monitoring. This application adds 0.07 acres to the disturbed area (Table 1-1).

Appendix 4.17-1 Attachment 5-4 is the RB&G Engineering Inc. report titled, Skyline Flat Canyon Mining Lease Boulger and Electric Lake Dams & Reservoirs, June 2018, which contains monitoring recommendations to be incorporated into the MRP. Attachment 5-5 is the correspondence from Canyon Fuels to Dave Marble, Utah Division of Water Rights - Dam Safety describing the monitoring plan. Attachment 5-6 is the letter from Dave Marble to Canyon Fuel Company accepting the monitoring plan.

In May 2019, the Permittee predicted active mining would be within one mile of Boulger dam by November 2019 (App. 4.17-1, Attachment 5-5, p. 1 & 2). Draining of the dam would commence in the Fall of 2021 and full extraction would be conducted in the Spring of 2022. Any necessary repairs would be made in the late Fall of 2023. (Attachment 5-5, p.4).

Installation of several seismic stations and all piezometers was permitted under the Utah Coal Exploration R645-200 rules (2017 Outgoing document 09252017.5518). The Division expected three responses with that approval, which have now been achieved:

1. Provide photographs of each piezometer and survey monuments from two different angles.

2. Provide cultural and archaeology approval from the U.S. Forest Service.

3. Provide approval from Dam Safety for piezometers and survey monument installation.

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General Contents

Right of Entry

Analysis:

The application meets the State of Utah R645 requirements for Right of Entry.

Appendix 4.17-1 adds 0.07 acres to the disturbed area (Table 1-1). Right of Entry is allowed by federal leases UTU-77114. The USFS-Manti-La Sal concurrence, and landowner (repeater tower) agreements are found in Attachment 1-411 of Appendix 4.17-1. The Utah DWRi/Dam Safety authorization is found in Attachment 5-6 of Appendix 4.17-1.

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Environmental Resource Information

Historic and Archeological Resource Information

Analysis:

The amendment meets the State of Utah R645-301-411 requirements for Historic and Archeological Resource Information. The six seismic stations (A-F) are covered under various cultural resource reports and SHPO concurrence letters.

Seismic Station A was covered in a 2017 report, state project number U-17-EO-0426f, found in Attachment 4-4 of the amendment. Site 42SP1021 is located near Seismic Station A but is not considered NRHP-eligible and therefore it was concluded that No Historic Properties Affected would be the appropriate designation for this area. SHPO concurred with this determination in a letter dated November 8, 2017, a copy of which can be found in Attachment 4-5 of the amendment.

Seismic Stations B, D (labeled as D-Alt in the report), and E are covered in a 2018 report, state project number U18TD0497, found in Attachment 4-3 of the amendment. While the determination of effect cannot be identified due to the failure to include the agency letter in the submittal, it can be inferred from the results of the survey, namely that no cultural resources were found at any of the stations, that the determination for the project was No Historic Properties Affected. A SHPO letter dated August 23, 2018 can be found as Attachment 4-7 of the amendment.

Seismic Station C is covered in a 2017 report, state project number U18TD0309, found in Attachment 4-2 of the amendment. The location of the seismic station was originally an exploratory drill site named 1-18 which is how it is identified in the report. There is dispute regarding the actual location of site 42SP393, an NRHP-eligible site possibly located proximally to the station. However, due to the nature of the site and the impact from the station, it was determined No Adverse Effect would occur from the project in either case. A SHPO concurrence letter, dated August 13, 2018, is found in Attachment 4-6 of the amendment.

Finally, Seismic Station F was apparently covered in a report conducted by the Forest Service, however, this report is not included in the amendment. A search of the Utah Division of State History's e106 website reveals a report titled "Skyline Mine Seismic Station at Swen's Canyon" was submitted to SHPO by the Manti-La Sal National Forest in December of 2019. It is presumed that this report covers Seismic Station F as it is located in Swen's Canyon. The overall determination of effect for the project proposed in the report, according to the website, is No Historic Properties Affected. Due to the small size of the seismic station, this likely means that no cultural resources were encountered in the project area. A SHPO concurrence letter to this report, dated December 12, 2019, is included in the amendment as Attachment 4-1.

tmiller

Soils Resource Information

Analysis:

The application meets the State of Utah R645 requirements for Soils: Environmental Resource Information.

Chapter 2 Section 2.11, page 2-120l and 2-120m provide information concerning the Swen's Canyon and powerline soils. Section 2.11 refers to Appendix A2 for the "Order 2 Soil Survey of the Powerline Corridor Swens Pad Ventilation and Escape Shafts Coal Pile Expansion" dated December 4, 2014. (The survey is found on electronic page 2120 of 5231 in Appendix A2.) Figure 2 of the soil survey follows the powerline corridor to the Swen's Canyon ventilation facility. This Order 2 survey maps the soils on mountain ridges and toe slopes and at the mouth of Swens Canyon. The Swen's canyon soil survey soil analytical information is found in Appendix D of App A2 and in the 2016 Annual Report [(which has the analytical report of sampling done at the time of salvage, p. 2-120(m) and p. 4-34(b)].

Appendix 4.17-1, Boulger Dam, Section 222.200 refers back to the above survey and to Figure 2-1 of Appendix 4.17-1

which provides the seismic station locations and soil map units at the Order 3 Soil Survey level. This figure is adapted from Plate 2.7.1-1b, Permit Area Soil Types.

Seismic site A is located on Boulger dam which is a disturbed site. Seismic sites B, C, D, E, and F are small disturbances which were permitted under the Utah Coal Exploration R645-200 rules (2017 Outgoing document 09252017.5518). Seismic site C is on a ridge South of Swens Canyon. Seismic Site F is at an elevation of 8,750 feet at the toe of a north facing slope near the confluence of Swens Creek and Huntington Canyon.

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Operation Plan

Topsoil and Subsoil

Analysis:

The application meets the State of Utah R645 requirements for Soils: Operation Plan.

The Skyline Mine has six stockpile locations (p. 4-35).

The portal stockpile holds 91,586 cubic yards (p. 2-114 and Table 4.6-4). The portal yard stockpile is shown on Plate 3.2.1.1 Mine Surface Facilities and 4.4.2-1AA Skyline Mine As Built.

The loadout stockpile holds 27,787 cubic yards (p. 2-114 and Table 4.6-4). The stockpile location is shown on Plate 3.2.1-3 Loadout Facilities.

The 7.68 acre waste rock site has two stockpile locations shown on Plate 3.2.8-1 Waste Rock Site. The waste rock site was contemporaneously reclaimed using soil from an AML project and imported cover soil (p. 2-114 and p. 3-56a). In 2007, a waste rock site expansion was permitted (p. 3-55(a) and 3-56), but the expansion did not take place. In 2007 the waste rock face had been contemporaneously reclaimed with 12,000 CY of soil on its face (p. 4-39(a)(1). In 2008, a portion of the waste rock pile was re-mined (Task 2977). Soil stripped from the waste rock face was placed into two stockpiles at the top of the waste rock pile. In 2020, approximately 4.55 acres was determined to have been remined and to require contemporaneous reclamation. Also in 2020, the permittee calculated a total of 4,904 CY were stored in two locations at the waste rock site (Table 4.6-4, notation #2).

Winter Quarters stockpile holds 5,200 CY, as shown on Plate 3.2.4-3A Winter Quarter's As Built. It is ASCA Area 37 and is protected as described on p. 3-72(b).

James Canyon stockpile holds 126 CY (p. 4-30(a). It is shown on Plate 3.4-1 James Canyon Disturbed Area Map. It is in ASCA 36 area and is protected as described on p. 3-72(b).

Swen's canyon stockpiles were constructed in 2016 as shown on Plate 3.2.4-4A Swen's Canyon Shaft Interim Facility Loadout. They hold 8,755 CY topsoil and 6,350 CY of subsoil [p. 2-120(m) and 4-34(b)]. As stated on page 3-31(d) the Swen's Cyn stockpiles were seeded with the mix described in Table 4.7.11A. They are ASCA Area 41 which is protected as described on p. 3-72(c).

The South Fork stockpile mentioned on page 2-114 and shown on Plate 3.2.11-1 was consumed in reclamation.

Stockpiles were stabilized with the seed mix found in Table 4.6-1, modified as described.

The Appendix 4.17-1 Boulger Dam subsidence monitoring plan meets the State of Utah R645 requirements for Soils:Topsoil and Subsoil Removal from minor disturbances. There are five survey monuments, four piezometers and six seismic monitoring stations for Boulger Dam monitoring (A – F) [App. 4.17-1 Sec. 2 and p. 3-72c). The survey monuments were installed around the reservoir with three being on the dam (App. 4.17-1, Figure 1-1). The piezometers were installed on the dam. No soil was disturbed for the installation of survey monitors and piezometers. Each seismic station surface disturbance was limited as described in Section 222.100 and illustrated in Figure 5-1.

In accordance with R645-301-232.410, no topsoil was salvaged for the boulger seismic monitoring or survey monument installations. Photographs of seismic stations A - E and the repeater sites are found in Appendix 4.17-1, Attachment 5-1. The images demonstrate the limited disturbance associated with the seismic installations.

pburton

Hydrologic Ground Water Monitoring

Analysis:

The application meets the State of Utah R645 requirements for Hyrologic - Ground Water Monitoring.

As part of the Boulger Reservoir Dam monitoring program approved by the Division of Water Rights, Dam Safety Group, a series of piezometers were installed to monitor the water saturation levels within and below the dam. Figure 1-2 of the submitted appendix illustrates the location of these, and Table 7-1 goes on to identify the screen intervals and elevations within the dam and at the toe of the dam. These piezometers are not part of the groundwater monitroing program, but are in place for the monitoring of the Boulger Dam in association with the requirements of the Division of Water Rights.

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Hydrologic Exemptions

Analysis:

The application meets the State of Utah R6645 requirements for Hydrologic - Exemptions.

The disturbances associated with the seismic monitoring stations are very small, with an approximate disturbance of 0.01 acres. Sediment control methods for the minor disturbances associated with the installation of the seismic stations include raking any disturbances and reseeding. The Permittee has stated that the monitoring stations are on flat stable ground. The majority of the sediment controls are provided through the existing undisturbed vegetation. These seismic station disturbance areas have been designated as ASCA area 42 and are described in Chapter 3 of the MRP.

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Reclamation Plan

Topsoil and Subsoil

Analysis:

The application meets the State of Utah R645 requirements for Soils: Redistribution.

Redistribution Table 4.6-4 provides an accounting of the redistribution of topsoil (pages 4-38c and 4-38d). The table accounts for redistribution over 59.99 acres of disturbed land by land owner: USFS or private. Table 4.6-4 accounts for allocation of stockpiled topsoil at the Mine Yard, the Loadout, Winter Quarters, the Waste Rock site, Swen's Canyon, the Overland conveyor, and the Water tank and Well pads. The disturbed acreage does not include area under stockpiles (notation 3, p. 4-38d).

Redistribution Table 4.6-4 sums 80,190 CY topsoil required on USFS land and 43,051 CY topsoil required on private land for a total of 123,241 CY required at final reclamation.

Redistribution Table 4.6-4 lists stockpiled volumes as 101,122 CY (USFS) and 53,304 CY (private) = 154,426 CY total stockpiled volume.

At the Waste Rock site, 12,258 CY topsoil is required to cover 4.55 acres to a depth of 20 inches. 4,904 CY is stockpiled. The deficit at the waste rock site will be made up from the portal yard topsoil stockpile (notations 1 & 2, p. 4-38d).

Section 4.1, Section 4.4 and 4.19.5 describe the reclamation of the mine site, loadout and conveyor ASCA Areas 25 – 30 (described on pp. 3-71, 3-71(a) and 3-72). A timetable is found in Section 4.2 (p. 4-6).

Final topography for the mine site and loadout are shown on the following plates listed on p. 4-28:

Dwg 4.4.2-1A Skyline Mine Site Final Topography,

Dwg 4.4.2-1BA Skyline Mine Site Cross-Sections,

Dwg 4.4.2-1B Eccles Creek Reclamation Details,

Dwg 4.4.2-1AC Eccles Creek Reclamation Details

Dwg 4.4.2-1b1 Mine Site Eccles Stream Gradient

Dwg 4.4.2-1E and F, Plate Water tank details

Dwg 4.4.2-1C Loadout Surface Facilities Reclamation Plan

Dwg 4.4.2-1D Loadout Cross Sections.

Reclamation accomplished at South Fork is described for ASCA areas 23 (p. 3-71) and ASCA areas 31 and 32 on p. 3-72(a).

Reclamation of the waste rock site is described in Section 4.1.1 (p. 4-3(a)) and shown on Dwgs 4.16.1-1B and C Waste Rock Site Reclamation and on Dwg 4.16.1-1D Waste Rock Site Possible Reclamation Plan.

Winter Qtrs reclamation is described in Section 4.1.2, Section 4.9, Section 4.16.2 (p. 4-90) and Section 4.19.9 (p. 4-110). Winter Quarters final topography is shown on Dwgs 4.4.2-3A and B. Stream profiles are shown on Dwg 4.17.1-1 and 4.17.1-2

Reclamation of the James Canyon Road and Drill pad is described on p. 3-28(a), pp. 3-63 (a, b, c) and in Section 4.4.5 (p. 4-30(a)) and Section 4.6 (p. 4-30(b)).

Swen's Canyon reclamation is described in Section 4.1.4 (p. 4-3(b) and Sections 4.7 (site) to 4.9 (shaft) found in Chapter 4, pp.4-41e -4-72. Reclamation of Swen's Cyn is shown on Reclamation Dwgs 4.4.2-A & B (e-p. 4-114a). Seed mixes are provided in Tables 4.7-11A &B (e-p. 4-50a and 4-103a).

Final Reclamation of South Fork is shown on Dwg 4.6.5-1

The Boulger Dam subsidence monitoring plan meets the State of Utah R645 requirements for Soils: Redistribution Plan. Appendix 4.17-1, Section 341, describes raking the topsoil back into place and hand broadcasting seed over the disturbance. The seed mix is outlined in Table 3-1 (App. 4.17-1, p. 3-6). Appendix 4.17-1 Performance Standard Section 352 states that reclamation activities will be performed contemporaneously. The seismic stations were installed in 2018. Photographs of the installations are found in Appendix 4.17-1, Attachment 5-1.

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Stabilization of Surface Areas

Analysis:

The application meets the State of Utah R645 requirements for soil stabilization.

Appendix 4.17-1, Section 742 states that sediment control relies on minimizing the disturbance using hand tools, roughening the ground and reseeding.

The plan states that the timetable for reclamation is uncertain, due to the indefinite period of monitoring required (Appendix 4.17-1, Section 542.100). In May 2019, the Permittee predicted active mining would be within one mile of Boulger dam by November 2019 (App. 4.17-1, Attachment 5-5, p. 1 & 2). Draining of the dam would commence in the Fall of 2021 and full extraction would be conducted in the Spring of 2022. Any necessary repairs would be made in the late Fall of 2023. (Attachment 5-5, p.4). Appendix 4.17-1, Section 352, states that reclamation activities will be performed contemporaneously to the extent possible.

pburton

Bonding Determination of Amount

Analysis:

The application meets the State of Utah R645 requirements for Determination of Bonding Amount.

The application satisfies the State of Utah bonding requirements within R645-301-830 because several items within the Earthwork and Demolition sections of the bond have been updated and amended since the date of the previous Midterm review. A previous deficiency required that the following inconsistencies be resolved: The inclusion of overhead and profit (O&P) in all unit costs, correction of an arithmetic error on page 70, include reclamation costs for recently drilled water monitoring wells, include costs to reclaim a recently installed rip-rap apron at the Winter Quarters Ventilation Facility, and 5-year escalation applied to the total calculated bond to 2024. The review also uncovered an error within the Earthwork section that had been inflating the Equipment Overhead costs well beyond the standard 10% that is customary in Earthwork calculations. Correcting this error resulted in the Earthwork costs decreasing by approximately $360,000. In addition to addressing these errors and inconsistencies, the reclamation costs that had been earmarked for the North Graben Bleeder Shaft were completely removed from the bond. This resulted in a bond reduction of over $20,000. The North Graben Bleeder Shaft was removed from the bond because the structure was never built, and it resides in an area of the mine that has been abandoned.

All unit costs within the bond have been adjusted to account for Overhead and Profit, and the total bond has been escalated by 2.32% to 2024, the year of the next Midterm review. The total reclamation bond amount in 2024 dollars is $5,502,000. The currently posted reclamation bond amounts to $5,799,000, therefore the Permittee is not required to post additional bond at this time.

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