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Hiawatha Mine: Division Order Response (Task #21553)

1 message

Steve Christensen <stevechristensen@utah.gov>

Mon, Oct 17, 2022 at 8:34 AM

To: Elliot Finley <efinley@efinley.com>

Cc: Miles Stephens <miles.stephens@gentrymining.com>, Charles Reynolds <charles.reynolds@hiawathacoal.com>, Mark Reynolds <mark.reynolds@gentrymining.com>, Todd Miller <toddmiller@utah.gov>, OGMCOAL DNR <ogmcoal@utah.gov>

Good morning,

The Division has completed its technical review of the aforementioned task. The cover letter and findings document are attached. No hardcopy to follow.

Regards,
Steve

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State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Natural Resources
Division of Oil, Gas and Mining

JOEL FERRY
Executive Director

JOHN R. BAZA
Division Director

October 17th, 2022

Elliot Finley, Resident Agent
3212 South State Street
Salt Lake City, UT 84115

Subject: DO-22A Response, Hiawatha Coal Company Inc., Hiawatha Mine Complex, C/007/0011, Task 21553

Dear Mr. Finley,

The Division has reviewed your application. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter. The deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise.

Please don't hesitate to contact us if you're unsure how to address a particular deficiency. We're happy to help and provide any guidance you may need.

The plans as submitted are denied. Please resubmit the entire application by no later than November 16th, 2022.

If you have any questions, please call me at (801) 538-5350 or Todd Miller at (385) 320-8384.

Sincerely,

Steve Christensen
Coal Program Manager





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Technical Analysis and Findings

Utah Coal Regulatory Program

PID: C0070011
TaskID: T-21553
Mine Name: HIAWATHA MINE
Title: DO-22A Response
Findings Report Date:

General Contents

Legal Description

Analysis:

The application does not meet the State of Utah R645-300-141 requirements for Legal Description.

The application does meet the requirements because the Permittee has disturbed lands outside the designated disturbance boundary.

In the MRP, Ch. VII, Exhibit VII-18B, the disturbed area boundary is shown ending at the inlet of CMP 36, the Pond 009 bypass culvert. However, based on a DOGM inspection on September 8, 2022 (I-006092), there is an area of disturbance above the culvert (to the east) which is apparently the result of cleaning out the culvert when it has plugged in the past. This disturbance, associated with maintenance of the permitted site's drainage system, must be properly permitted and incorporated into the disturbed area boundary. This disturbance may also be subject to performance bond adjustments.

Deficiencies Details:

The application does not meet the State of Utah R645-300-141 requirements for Legal Description. The following deficiency must be addressed prior to final approval:

R645-300-141: The Permittee must incorporate all lands disturbed as part of coal mining and reclamation operations into the approved MRP. This includes disturbance caused by maintenance of the site's drainage control plan.

Todd Miller

Operation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the State of Utah R645 requirements for Soils: Operation Plan.

Appendix VII-19 Drainage Diversion Size Requirements presents soil data for each watershed in Table 1. The Permittee states that soil data for each watershed is based on soil types described in Ex. II-1, 2 & 3. And vegetation types shown on Ex. III-4, 5, and 6. (App. VII-19, p. 2).

A notation to Table 1 in Appendix VII-19 identifies watersheds UA-6, UA-19, UA-20, UA-21, UA-24, UA-25, UA-54 and UA-55 reporting to the Middle Fork pad area; and UA-6, UA-30, UA-31, UA-32, and UA-33 reporting to culverts along the Middle Fork Road as having been affected by the Seeley Fire (App. VII-19, p. 5). (The watersheds are shown on Exhibits VII-19 Middle Fork, VII-20 Hiawatha, and VII-21 South Fork.)

The Middle Fork soil map units in UA 24 and UA-25 are #33, #46, #100 and #712 (Ex. II-3). Map Units 712 and 100 are described in Appendix 2-2 Forest Service Soil Identifications, however the Appendix 2-2 information does not provide the hydrologic group, soil percentage area or vegetation information that is listed in Table 1 of App VII-19. Middle Fork soils #33 and #46 are not defined in the App. 2-2. A more detailed soil survey, Appendix 2-1 Soil Survey and Interpretations, describes different mapping units than those shown on Ex. II-1, -2, and -3. The soils map referenced in Appendix 2-1 could not be found in the MRP.

The Permittee must provide a source for the soil map unit hydrologic group, the soil coverage area and vegetation cover used in the hydrologic calculations.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Soils: Operation Plan. The following deficiency must be addressed prior to final approval:

R645-301-121.200: The Permittee must provide a source for the soil map unit hydrologic group, the soil coverage area and vegetation cover used in the hydrologic calculations.

Priscilla Burton

Hydrologic General

Analysis:

The application does not meet the State of Utah requirements for Hydrologic General:

The amendment does not satisfy the requirements of R645-301-731.700 because the Permittee must define all undisturbed watersheds (including those not currently contemplated in the MRP) as defined in the Division Order. Exhibit VII-19 does not define the watershed that flows to culvert 29 from the Middle Fork of Miller Creek and its side drainages. This must be defined to ensure that culvert 29 has been adequately sized for all contributing flow. This watershed must be added to Attachment A of Appendix VII-19.

The Permittee must also provide further clarification and information on why the CN number used was increased by 4.8. The Division response states that this increase is in reference to “Table 1 Results of the various CN estimation methods for the pre-fire and post-fire periods” of the Soulis article, however, it must be justified how these numbers are compared the conditions on the ground at the Hiawatha mine site.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Hydrologic General. The following deficiency must be addresses prior approval:

R645-301-731.700: The Permittee must update peak runoff and soil loss calculations for all undisturbed watersheds, including the watershed that contributes to culvert 29. Updates must be made to Exhibit VII-19 and attachment A of Appendix VII-19.

The Permittee must also provide justification why the CN numbers for areas impacted by the Seely Fire were increased by 4.8. The Division Order Response references the Soulis article, but additional information is required to confirm that the conditions on the ground are like those within the article.

Kendra Hinton

Hydrologic Sediment Control Measures

Analysis:

The application does not meet the State of Utah requirements for Sediment Control Measures:

The amendment does not satisfy the requirements of R645-301-732 because the Permittee must provide additional information.

R645-301-732.100

Any Siltation structure that impounds water will be constructed and maintained to comply with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301.533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743.

Therefore, siltation structure that impounds water that was installed by the landowner at the inlet of Culvert 28 must be brought into the permit area, or the undisturbed drainage must be re-established as designed on Exhibit VII-18C. If the Pond is brought into the permit area, this pond must be adequately designed per the R645 requirements and bonded for.

R645-301-732.300

The Permittee must clearly state which specific ditches do not currently meet the minimum design requirements as defined on Table 3 of Appendix VII-19. Any ditches that are “oversized” and the utilize D50 riprap exceed that which is defined in Table 3 requires supporting calculations that they are stable and can safely pass the designed storm event.

The Permittee must also verify that all culvert sizes called out in Table 4 are what are present in the field. For example, culvert 29 is designed with a 60” diameter, but appears to be smaller than 60”. Any culverts that are going to be installed to replace water bars must be designed and included on all relevant tables and maps prior to installation.

R645-301-742

The Permittee must provide additional information regarding the drainage flowing into the undisturbed bypass culvert 24. Currently there is not a defined channel supplying undistributed drainage to the inlet of the undisturbed bypass culvert 24 in Middle Fork Canyon. This channel must be identified on all appropriate Exhibits, designed and maintained to meet the minimum requirements and prevent disturbed drainage from entering the undisturbed bypass culvert. The calculations must provide detailed information to ensure that the culvert in place is adequately sized.

Tables 3 and 4 defined the contributing watersheds to culverts and ditches. However, some watersheds defined in Exhibit VII-19 and VII-20 are not called out in these tables and different watershed names (i.e. “Middle Fork Left”, “Middle Fork”) are not defined on the above mentioned Exhibits. The contributing watersheds listed in the design tables must correspond with what has been defined on the MRP watershed Exhibit plates.

R645-301-742.220

The Permittee must provide sediment pond 008 calculations and design drawing updates (Exhibit V11-13). The Division Order response states that the sediment capacity has increase, however calculations were not provided to support this statement. This information must be provided to ensure that the appropriate and updated watershed information was considered. The Mining and Reclamation plan text within section -732 *Middle Fork Mining Operations* must be updated to reference the appropriate drawings, tables and design calculations.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Sediment Control Measures. The following deficiency must be addressed prior to final approval:

R645-301-732: The Permittee must update the permit boundary to include the siltation structure that impounds water or re-establish the diversion to C-28 as designed. The Permittee must specify which ditches do not meet the minimum design requirements and provide supporting engineering information and calculations for oversized ditches to ensure they are stable.

R645-301-742: The Permittee must provide detailed calculations and information on the undisturbed drainage that enters C-24 and ensure the culvert in place is adequately sized. The Permittee must also ensure that all watersheds are correctly named and referenced correctly throughout the MRP and the associated Exhibits.

R645-301-742.220: The Permittee must provide updated calculations and design drawings for sediment pond 008 to ensure that the updated information was considered when updating the pond design. The text within the MRP must also be updated to reference the appropriate design drawings and information.

Kendra Hinton

Maps Monitoring and Sampling Locations

Analysis:

The application does not meet the State of Utah R645 requirements for Maps Monitoring and sampling Locations.

The amendment does not satisfy the requirements of R645-301-722 because the Permittee must update the appropriate chapter 7 exhibits to include the constructed debris basins at the following locations: In Middle Fork Canyon at C-17, C-25 and C-24 as well as in South Fork Canyon at C-36 and C-26. These basins have been constructed to remove debris from the inlet structures and must be labeled as such on the appropriate drawing files. The debris basin and surrounding area at the inlet of C- 36 must also be brought into the permit area. This area has been disturbed by the operator while cleaning out debris from the inlet of the bypass culvert. During the 2021 storm event clean up, the operator accessed the inlet and placed debris outside of the permit area. Access to this culvert will remain necessary for future by-pass culvert clean out activities, therefore the area must be added to the disturbed area boundary within the permit boundary.

Within the Division Order Response within appendix VII-9 the operator states that *“Culvert 10 is currently a 24” culvert. This size, however, will not pass the required storm event. The design requires at least a 30” culvert. This culvert should be upgraded accordingly. The size of culvert 53 is marginal in passing the 10 year - 6 hour storm event. As a protective measure, culvert 52 has been placed immediately below culvert 53 so as to catch any flow which may bypass culvert 53 if it reaches capacity.”*

“Two stream fords and a water bar exist in North Fork which will be replaced by culverts. These are shown on Exhibit VII-19 as culverts 59 (The Miller Creek stream fords), and culvert 18.”

All drawing files within the MRP must be updated to include the new culvert descriptions prior to the installation of the culverts.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Maps Monitoring and Sampling Locations. The following deficiency must be addresses prior approval:

R645-301-731.722: The Permittee must update all appropriate drawing files to include the updated culvert information and label all constructed debris basins. The Permittee must also update the permit boundary to include the access to C-36 and the area that has been disturbed while removing debris during the inlet cleanout process.

Kendra Hinton

Reclamation Plan

Topsoil and Subsoil

Analysis:

The application does not meet the State of Utah R645 requirements for Soils: Reclamation Plan.

The approved MRP accounts for 190.12 disturbed acres (MRP Chap 2, p. 2-35 and Table 11-13 Reclamation Area Acres and Topsoil Volumes).

Table II-13 Reclamation Area Acreage and Topsoil Volumes table breaks down the acreage by type of disturbance, locations, and acres of bond release. Table II-13 lists 95.27 acres that have received Phase III bond release. Table II-13 sums the remaining 190.12 total disturbed acres as follows:

134.69 Hiawatha + 28 roads + 12.63 South Fork + 14.8 Middle Fork = 190.12 ac. disturbed

The debris basin upstream of C-36 at the South Fork Pond 009 is included within the 12.63 acre disturbed area boundary for South Fork. However, the amendment must either include additional acreage for the catch basin at C-28 on the Middle Fork Road or cut it off from the road drainage that reports to C-28.

Deficiencies Details:

The application does not meet the State of Utah R645 requirements for Soils: Reclamation Plan. The following deficiency must be addressed prior to final approval:

R645-300-241:

The Permittee must update Table II-13 Reclamation Area Acreage and Topsoil Volumes with the Middle Fork catch basin at C-28 on the Middle Fork Road or cut the catch basin off from the road drainage that reports to C-28.

Priscilla Burton

Bonding Determination of Amount

Analysis:

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

The application does not satisfy the requirements of R645-301-830 because there are no bonding calculations provided that address the additional disturbance proposed in the division order. The Permittee must provide amended bonding calculations that address the following disturbances:

- The impoundment structure that was built at the inlet of Culvert 28 just outside of the disturbed area boundary must be appropriately sized and bonded.
- The debris basin at the inlet to Culvert 36 must also be appropriately sized and the bond adjusted accordingly. In addition to the basin, the disturbed acreage surrounding the culvert as well as the access must also be accounted for in the reclamation bond.

Deficiencies Details:

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

R645-301-830: The Permittee must provide amended bonding calculations that address the disturbances in the analysis above.