

0014



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

OK

April 29, 2002

TO: Internal File

THRU: Susan M. White, Senior Reclamation Specialist/Team Lead *SMW*

FROM: Wayne H. Western, Senior Reclamation Specialist *WHW*

RE: Tank Seam Access Road and Portal Pad Area, CO-OP Mining, Bear Canyon Mine, C/015/025-AM02B

SUMMARY:

On February 19, 2002, the Division received a request from the Permittee of the Bear Canyon Mine to process Amendment AM02B, Wild Horse Ridge Tank Seam Addition (Phase II). The area is located south east of the existing Wild Horse Ridge Blind Canyon Seam pad. An existing road will access the site, a new road branch from the existing road and a pad area will be constructed. In addition, the Permittee proposes to move the current Tank Seam Fan and water tank to the WHR Blind Canyon seam pad and the removal of the WHR Blind Canyon Seam shop.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The Permittee stated on the C1 for that the permit area would increase by 2.25 acres. The Division reviewed the location of the No. 4 Mine access road and the WHR Tank Seam portal pad area and determined that they are within the permit boundaries. However, neither the No. 4 Mine access road nor the WHR Tank Seam portal pad areas are within the disturbed area boundaries. The Permittee should change the C1 for to avoid confusion.

TECHNICAL MEMO

No additional acres will be added to the permit area. However, 2.25 acres will be added to the disturbed area boundaries.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-121.200, The Permittee needs to submit a C1 form with the correct information about the change in the permit acres. The Permittee stated in the C1 form that 2.55 acres would be added to the permit area and the disturbed area instead of just the disturbed area.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The Permittee does not propose any changes to the permit or affected area boundaries.

Existing Structures and Facilities Maps

The only existing structure in the proposed disturbed area boundary is the access road to the hunting cabin, which is shown on Plate 3-7G, Per-Mining Land Surface Configuration. The cross-section as indicated on Plate 3-7G are located in Appendix 3-P.

Existing Surface Configuration Maps

The existing surface configuration is shown on Plate 3-7G. The map has a scale of 1" = 50' and was certified by Charles Reynolds. The cross-sections are in Appendix 3-P; they show the pre/post mining and operation surface configuration.

The cross-sections are for the WHR portal pad only. The Permittee must include cross-sections for No. 4 Mine access road. The Division is interested in areas that will be widened for operations and the restored to the pre-mining configuration.

The cross-sections do not have the same horizontal and vertical scale. The Division usually prefers to have the horizontal and vertical scales to be the same.

The cross-sections do not show the area 100 feet outside the disturbed area boundaries.

The Division needs that information to determine how disturbed area blends into the undisturbed area.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.152 and R645-301-521.190, The Permittee must give the Division cross-sections that show the following: 1) the areas 100 feet outside the disturbed area boundaries, 2) areas on the No.4 Mine Access Road that will be widened. The Division would prefer, that the cross-sections have the same horizontal and vertical scales.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

General

The Permittee proposes the following changes to the MRP:

- To develop the No. 4 Mine access road
- To develop the Wild Horse Ridge Blind Canyon Seam pad
- Move the Tank Seam fan and water tank from the current location to the Wild Horse Ridge Blind Canyon Seam pad area.
- Move the proposed location of the water tank at the WHR Blind Canyon Seam pad.
- Remove the WHR Blind Canyon Seam shop from the MRP. The building was proposed but never constructed.

The Permittee has approval to mine the Blind Canyon Seam. The Permittee also plans to increase the permit area by including additional lease to the Blind Canyon Seam.

The purpose of this amendment is to get approval to construct the road and facilities needed to access the Blind Canyon Seam and to modify the surface facilities at the WHR Tank Seam Pad.

Findings:

TECHNICAL MEMO

The information provided in the proposed amendment is considered adequate to meet the requirements of this section of the regulations.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

The only existing structure in the proposed disturbed area is a private road that is used to access a hunting cabin. The road will be upgrade to handle the additional traffic.

In addition, the Permittee plans to move the Tank Seam fan and water tank from the current location to the Wild Horse Ridge Blind Canyon Seam pad area and remove the WHR Blind Canyon Seam shop.

Findings:

The information provided in the proposed amendment is considered adequate to meet the requirements of this section of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

No public roads exist in the proposed disturbed area. However, a private road does exist which is used to access a hunting cabin. The Division has no regulations that deal specifically with private roads with the permit area that are used by Permittee or their employees. The Division encourages the Permittee to advise those using the road of the construction. Note: the Division did not require any special notification when the Permittee modified the lower part of the hunting cabin access road during the development of the WHR Tank Seam pad.

Findings:

The information provided in the proposed amendment is considered adequate to meet the requirements of this section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road classification system

Because the No. 4 Mine access road will be used for coal haulage, the road must be classified as a primary road. The main difference between a primary and ancillary road is that a primary road design must be certified.

Plans and drawings

The design for the No. 4 Mine access road is in Appendix 3-P. The road is approximately 2,000 feet long, averaging 10% grade and not exceeding 14% grade. The section of the road that existed before mining and will remain in place meets the post-mining land use.

On page 8-43 of the amendment the Permittee states:

WHR Tank Seam Lower Portal Access Road: The area consists of an existing recreational road that was in place before mining and will be used post mining. There will be no construction or soil movement within this area so no topsoil will be removed. The soils in this area are described in Appendix 8-G.

Table 3P-1, Summary of Cut and Fill Volumes on page 3P-4 also shows that the entire earthwork will be done in and around the pad area.

In a conversation with the Division on March 15, 2002, the Permittee (Charles Reynolds) stated that part of the road would be upgraded to accommodate heavy truck traffic. The improvements include adding a passing lane and widening turns.

The Permittee needs to clarify if any modification will be made to the No. 4 Mine access road before the WHR pad turnoff. If that section of the road will be modified then the Permittee needs to give the Division detailed designs.

The Permittee addresses the general road design requirements as follows:

- The pre-mining, operational and post-mining maps for the No. 4 Mine access road and the WHR Blind Canyon Seam pad area are as follows; Plate 3-7G, Plate 2-4G and Plate 3-2G respectively. The locations of the cross-sections are shown on each map except Plate 2-4G. The cross-sections are in Appendix 3-P. On page 3-7 the Permittee states that the road surfacing material for the No. 4 Mine Portal Access Road will consist of in-place material and/or road base (gravel) material. A new culvert will be installed for the operational and post-mining periods. The designs of those culverts are included and reviewed in the hydrology section.

TECHNICAL MEMO

- The Permittee does not propose to locate the No.4 Mine Portal access road in the channel of an intermittent or perennial stream.
- The Permittee does not propose have the road ford and streams. Therefore, no designs for those structures are needed.
- The Permittee does not propose to alter or relocate an existing natural stream channel.

The Permittee addresses the specific primary road design requirements as follows:

- The Permittee had the designs for the No. 4 Mine Access road certified by Charles Reynolds who is a registered professional engineer.
- The Permittee had slope stability calculations done on each of the cross-sections. All of the slopes during the operational phase will have a static safety factor of 1.3 or greater. See the summary sheet in Appendix 3-P for details.
- The erosion control issues will be addressed in the hydrology section of the TA.
- The Permittee will use native material and road base (gravel) when needed for road base. The Division does not have specific standards for road surfacing. The road will be constructed and maintained like similar roads at the mine. Road surface materials have not been a problem at the mine. If a problem should occur then the Division will take action under road maintenance.

The cut and fill calculations are shown on Table 3P-1. The Permittee plans to cut 11,029 cubic yards of material of which 1,300 cubic yards are topsoil. The Permittee plans to use 11,089 cubic yards of material as fill. While the cut and fill calculations do not match, they are close enough (13%) for the Division to understand the construction plan.

Performance standards

The road will be subject to all performance standards.

Primary road certification

The No. 4 Mine Access road has been classified as a primary road. Charles Reynolds, who is a professional engineer, has certified the designs.

Other Transportation Facilities

No other surface transportation systems are associated with the WHR Tank seam pad or access road.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.152 and R645-301-521.190, The Permittee must show the location of the cross-sections on Plate 2-4G.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Discharges into an underground mine

The Permittee needs to state is there will be a discharge into the mine.

Gravity discharges

The Permittee needs to state is there will be a discharge from the mine.

Sedimentation ponds.

No sediment ponds are associated with the construction of the WHR Tank Seam Pad area or the No. 4 Mine Access Road.

Impoundments

No impoundments are associated with the construction of the WHR Tank Seam Pad area or the No. 4 Mine Access Road.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.152 and R645-301-521.190, The Permittee must state if there will be discharges into or from the WHR Tank Seam portals.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

TECHNICAL MEMO

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

The water tank for the WHR Blind Canyon Seam mine will come from the old Tank Seam mine. The WHR Blind Canyon Seam Ventilation Fan will come from the old Tank Seam mine. The Division will allow the Permittee to relocate the water tank and ventilation fan.

The Permittee wants to withdraw constructing a shop building at the WHR Blind Canyon seam mine. Since the building was not constructed, the Division will allow the Permittee to withdraw the building.

Findings:

The Permittee has met the minimum requirements for this section of the regulations.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

The Permittee is responsible for placing all signs and marks as required by the regulations. The Division will inspect the site on a monthly basis. If signs or markers are inadequate then the Division will take action.

Findings:

The Permittee has met the minimum requirements of this section of the regulations.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

General

The Permittee has not submitted a specific blasting plan for the WHR Tank Seam portal pad area. If the Permittee finds that blasting is needed during construction then they can submit a blasting plan to the Division for review.

Findings:

The Permittee has met the minimum requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps

Since no new areas will be permitted, the affected area current maps are adequate.

Mining facilities maps

Plate 2-4G shows the surface facilities for the WHR Blind Seam and Tank Seam portal areas. At the WHR Blind Seam area, the Permittee shows that the shop building will not be constructed and that the water tank has been moved near to the portals. At the WHR Tank Seam area the location of the portals, water tank and fan are shown along with the access road.

Plate 2-4E shows the reclaimed areas for the fan and water tank. Those areas will be reclaimed.

Mine workings maps

Plate 3-4C, Tank Seam, shows the location of the Tank Seam mine workings. The general mine plan has been approved by the Division.

Findings:

The Permittee has met the minimum requirements of this section of the regulations.

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

TECHNICAL MEMO

The definitions of AOC are couched in terms of backfilling and grading in order to achieve certain results. The mining and reclamation plan must provide the basis for determining whether the proposed backfilling and grading plan will meet the following:

Final Surface Configuration

The final surface configuration should closely resemble the general surface configuration of the land before mining. Which means that the pre-mining and post-mining slopes should be similar and that the reclaimed site should blend into the surrounding area. Note: that the term AOC does necessarily mandate the attainment of original elevation

The cross-sections in Appendix 3P show that the Permittee plans to restore the site to the pre-mining topography. Since no materials will be moved off site or imported (except for possible road base) the Permittee will not have mass balance problems. The cross-sections show that the reclaimed site will blend into the surrounding area.

All Spoil Piles to be Eliminated

No spoil piles will be created as part of the construction of the No. 4 Mine Access road or the WHR Tank Seam pad area.

All Highwalls to be Eliminated

While the Permittee does not address this issue in the text, the cross-sections in Appendix 3P show that all highwalls will be eliminated. The highwalls on the cross-sections are clearly marked and shown to be backfilled to the original slope.

Some cut slopes associated with the road will be left. The Division allows cut slopes to be left because they are either needed to support the post-mining land use or reclamation of the cut slopes cannot be done without violating a regulation such as slope stability.

Hydrology

The two main hydrology issues are restoration of the drainages and sediment control. No major drainages exist at the WHR Tank Seam pad area. The site will be restored to AOC standards so that the drainage patterns should be restored to the pre-mining conditions. The sites area ASCAs therefore no sediment ponds will be constructed or used during operations or reclamation. Those issues are also addressed in the hydrology section of the TA.

Post-Mining Land Use

The pre-mining and post-mining land use for the Tank Seam pad area and the No. 4 Mine Access road should be the same. By restoring the site to the pre-mining condition, the land will be able to support the post-mining land use. See the post-mining land use section of the TA for more details.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.152 and R645-301-553.120, The Permittee must describe in the text the highwall elimination plan.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The general backfilling and grading requirements are:

- Achieve the approximate original contour;
- Eliminate all highwalls, spoil piles, and depressions;
- Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides;
- Minimize erosion and water pollution both on and off the site
- Support the approved postmining land use.

The AOC issues were addressed in that section of the TA. The general requirements for restoring the site to the pre-mining surface configuration have been met.

The highwall issues were addressed in the AOC section. The Permittee proposes to eliminate all highwalls at the WHR Tank Seam pad. No spoil piles or large depressions are associated with the WHR Tank Seam pad or No. 4 Mine Access Road.

The Permittee did not address the slope stability issues associated with the WHR Tank Seam pad. While the Permittee did show that the operational slopes would be stable, they did not show that the reclaimed slopes would meet the safety factor requirements.

The hydrology and post-mining land use requirement are discussed in other sections of the TA.

The Permittee did not address how exposed coal seam in the WHR Tank Seam area will be backfilled. The Division needs enough details to determine if the exposed coal seams are

TECHNICAL MEMO

adequately covered to control impacts on surface and groundwater and prevent sustained combustion and to minimize adverse effects on plant growth and the approved postmining land use.

The backfilling and grading plan does not call for any cut-and-fill terraces to be left.

Previously Mined Areas

No previously mined areas are associated with the WHR Tank Seam pad area. Much of the No. 4 Mine Access road was disturbed before mining.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-553.300, The Permittee must describe how the exposed coal seams will be covered to prevent impacts on surface and ground water and prevent sustained combustion. The location of coal seam on the cross-sections would help show that the reclamation plan is adequate.

R645-301-553.130, The Permittee must show that all reclaimed slopes in the WHR Tank Seam will have static safety factors of 1.3 or greater.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The approved MRP has a mine openings sealing plan. The plan deals with sealing portals and is adequate for the WHR Tank Seam pad area.

Findings:

The Permittee has met the minimum requirements of this section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The Permittee will to reclaim the portal pad area and the turn off road from the hunting cabin access road. The general reclamation plan is shown on Plate 3-2G, see Plate 2-4G for operational status. The cross-sections for the pre-mining, operational and post-mining for the No. 4 Mine Access road and WHR Tank Seam portal pad area are in Attachment A of Appendix 3P.

The Permittee did not address the reclamation of the portal pad or the turn off road in the text. A description of the reclamation plan must be included in the text of the MRP. At a minimum, the description should include the following:

- Reclamation timetable for the road. (Revise Table 3.6.8.1)
- Basic description of: closing the road to traffic; removing/replacing culverts, removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and revegetation requirements; reshaping cut and fill slopes as necessary to be compatible with the postmining land use and to complement the natural drainage pattern of the surrounding terrain; protecting the natural drainage patterns by installing dikes or cross drains as necessary to control surface runoff and erosion; and, scarifying or ripping the roadbed, replacing topsoil or substitute material and revegetating disturbed surfaces.

Retention

The Permittee must address why the No. 4 Mine Access road will remain as part of the post-mining land use in the reclamation section of the MRP.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-542.600, The Permittee must 1) address the reclamation of the portal pad or the turn off road in the text and 2) why the No. 4 Mine Access road will remain as part of the post-mining land use.

HYDROLOGIC INFORMATION

TECHNICAL MEMO

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Discharges into an underground mine

The Permittee needs to address discharges into underground mines after reclamation.

Gravity discharges

The Permittee needs to address the discharge into underground mines after reclamation.

Sedimentation ponds

No sediment ponds are in the WHR Tank Seam pad area.

Impoundments

No impoundments are located in the WHR Tank Seam pad area.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.152 and R645-301-521.190, The Permittee must state if there will be discharges into or from the WHR Tank Seam portals after reclamation.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Affected area boundary maps

Because there are no changes to the permit area, the existing permit boundary maps are adequate.

Bonded area map

The bonded area map is the same as the disturbed area map. Plate 3-2G shows the disturbed area boundaries that will exist during reclamation.

Reclamation backfilling and grading maps

The backfilling and grading maps for final reclamation are Plate 3-2G and the cross-sections in Appendix 3P. The maps and cross-sections show the pre-mining, operational and post-mining contours and slopes.

Reclamation facilities maps

Plate 3-2G shows the facilities that will be left after reclamation of the WHR Tank Seam pad area and access road. The main access road to the hunting cabin will be left, along with some culverts.

Final surface configuration maps

Plate 3-2G and the cross sections in Appendix 3p show the final surface configuration for the WHR Tank Seam pad area.

Reclamation surface and subsurface manmade features maps

Plate 3-2G shows the facilities that will be left after reclamation of the WHR Tank Seam pad area and access road. The main access road to the hunting cabin will be left, along with some culverts.

Findings:

The Permittee has met the minimum requirements of this section.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount

The bond calculations appear to be adequate. The Division cannot reduce the reclamation cost estimate for removed structures until the Division conducts an inspection and determines that those structures have been removed. The Division will finalize the bond calculations after the first review.

Findings:

TECHNICAL MEMO

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section of the regulations. Before approval, the Permittee must provide the following in accordance with:

R645-301-830.130 and R645-301-830.140, The Division cannot reduce the reclamation cost estimate for structures that have been removed until the work has been completed and a finding made by the Division. Therefore, the bond estimate must include 4 fans instead of 3 until the work has been completed and the Division makes a finding that the reclamation work has been completed.

RECOMMENDATION:

The Division should deny this amendment until the Permittee corrects all of the above-mentioned deficiencies.