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 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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OK

September 3, 2002

TO: Internal File

THRU: Mike Suflita, Senior Reclamation Specialist/Team Lead *MS*

FROM: Wayne H. Western, Senior Reclamation Specialist *W#W*

RE: Tank Seam Access Road and Portal Pad Area, CO-OP Mining, Bear Canyon Mine, C/015/025-AM02B-1

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 new permit area is shown on several maps submitted in the PAP.

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Findings:

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

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.

Findings:

The information provided in the proposed amendment is considered adequate to meet the requirements of the Maps, Plans, and Cross-Sections of Resource Information section of the regulations.

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:

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.

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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 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. 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.
- 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

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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 considered adequate to meet the requirements of the Road Systems and Other Transportation Facilities section of the regulations.

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

There are no plans discharges into an underground mine.

Gravity discharges

There are no plans gravity discharges into an underground 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 considered adequate to meet the requirements of the Hydrologic Information section of the regulations.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

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.

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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:

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

The Permittee proposes to eliminate all highwalls.

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.

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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 considered adequate to meet the requirements of the AOC section of the regulations.

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

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 considered adequate to meet the requirements of the Backfilling and Grading section of the regulations.

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.

Findings:

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

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HYDROLOGIC INFORMATION

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

There will be no discharges into underground mines after reclamation.

Gravity discharges

There will be no 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 the Hydrologic section of the regulations.

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 current bond amount is for \$1,825,000 and the reclamation estimate is for \$1,825,000.

Findings:

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

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RECOMMENDATION:

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

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