

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

April 28, 2008

TO: Internal File

FROM: James D. Smith, Environmental Scientist I, Team Lead *JS 04/29/08*

RE: Mine Yard Directional Horizontal Burn Drilling, Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task ID # 2963

SUMMARY:

The Permittee proposes to drill multiple horizontal boreholes from a single location on the existing mine pad. The purpose is to determine the location of burned coal for mine planning. The drill pad will be approximately 50 ft by 50 ft, and there will be no new surface disturbance.

TECHNICAL ANALYSIS:

OPERATION PLAN

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The horizontal boring is for mine planning, to determine the location and depth of the coal burn in the Hiawatha Seam, west of the mine pad.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

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Analysis:

Endangered and Threatened Species

The Colorado River Endangered Fish Recovery Program is not addressed. Water used for the boring will come from the existing mine water system. Fluids will be recycled as much as possible and any excess fluids will be hauled to an approved waste disposal site. The Division is of the opinion that this project should not result in water consumption significantly greater than normal mine operations and does not require a recalculation of mine water consumption.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

No topsoil will be removed for this work.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Disposal Of Noncoal Mine Wastes

Drilling fluids will be contained in a mud pit on the drilling pad. When drilling is completed, excess drilling fluid will be hauled to an approved waste disposal site.

Coal Mine Waste

Cuttings will be hauled to Sufco's permitted water rock site.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

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:

Acid- and Toxic-Forming Materials and Underground Development Waste

Cuttings will be hauled to Sufco's permitted water rock site.

Water-Quality Standards and Effluent Limitations

Drilling fluid additives will be minimal and non-toxic. Drilling fluids will be contained in a mud pit on the drilling pad and recycled as much as possible. When the work is completed, excess drilling fluid will be hauled to an approved waste disposal site. There will be no change in runoff or UPDES discharge because the work is being done within the permitted disturbed area.

Diversions: General

The Permittee will excavate a small mud pit and a short ditch to conduct drilling fluids and cuttings from the drill to the mud pit. Upon completion of drilling, the mine yard will be regraded and smoothed to its previous condition.

Sediment Control Measures

Cuttings will be contained in the mud pit. Upon completion of the work, the cuttings will be hauled to Sufco's permitted waste rock site.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

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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:

Mining Facilities Maps

Figure 6-2 shows the location and approximate setup for the drill site and the extent of the boreholes.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

RECLAMATION 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

Upon completion of the work, the equipment will be removed and the mine pad returned to its pre-boring configuration.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

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:

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Upon completion of the work, the borehole collar will be plugged with cement or grout to a depth of approximately 100 ft.

Findings:

The proposed amendment meets the requirements of this section of the Coal Mining Rules.

RECOMMENDATIONS:

The amendment should be approved. The submitted pages can be inserted directly into the MRP; there is no need for Clean Copies or Conditional Approval. There is no need to update the Sufco Mine Tech Memo or the CHIA.