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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 27, 2008

TO: Internal File

THRU: James D. Smith, Permit Superviser

FROM: Stephen J. Demczak, Team Lead

RE: Minor Coal Exploration, PacifiCorp , Deer Creek Mine, C/015/0018, Task ID #2944

SUMMARY:

Energy West is proposing to conduct a helicopter-assisted minor coal exploration drilling during the year 2008. The permittee has plans to core-drill four holes by using this method. The drilling will take place in Crandall Canyon. The proposed drill is located within the current Utah State Coal Lease ML-48258, and the United States Forest Service administrates the surface land. This project is to analyze seam characteristics and coal thickness.

The holes will be drilled using a helicopter-transported drill rig in accordance with the Utah State Coal Lease ML-48258 application for the Notice of Intention of Conduct Minor Coal Exploration. Less than 250 tons of coal will be removed. The permittee has recently conducted minor exploration using this method at Mill Fork Canyon and adjacent areas.

The Division will need concurrence from School and Institutional Trust Lands Administration and US Forest Service with this proposed notice of intent to conduct minor coal exploration on coal lease ML 48258.

The minor exploration project is scheduled to start on May 15, 2008 and be completed by July 15, 2008.

EXPLORATION TECHNICAL ANALYSIS:

COAL EXPLORATION

Regulatory Reference: R645-200.

SCOPE AND RESPONSIBILITIES

Regulatory Reference: 30 CFR 772.1; 30 CFR 772.10; 30 CFR 772.11; R645-100-400; R645-200-100; R645-200-200; R645-201-100.

Analysis:

PacifiCorp has proposed to conduct minor exploration by drilling two holes within the Mill Fork Coal Lease ML-48258 in the year 2008.

The permittee has committed to comply with the requirements of R645-200 through R645-203.

This minor coal exploration will be conducted on Utah State Coal Lease ML-48258 and the United States Forest Service administrates the surface land; therefore, 43 CFR Part 3480-3487 does not apply.

Findings:

The permittee has met the minimum requirements of this section.

REQUIREMENTS FOR NOTICE OF INTENTION TO CONDUCT MINOR COAL EXPLORATION

Regulatory Reference: 30 CFR 772.10; 30 CFR 772.11; R645-100-412; R645-201-200.

Analysis:

Coal Rule R645-201-221 requires the applicant to give name, address, and telephone number of the applicant=s representatives, who will be present at and responsible for conducting the exploration operations. This information has been submitted in the Notice of Intent, Page 2.

R645-100-400, R645-200-100, R645-200-200, and R645-201-100; Energy West Mining has given a Notice of Intention to Conduct Minor Coal Exploration with a narrative and maps describing the exploration area and indicating where the exploration will occur. The permittee

will transport drilling equipment, materials, and personnel by helicopter. The drill sites will be relatively level (30 percent slope or less). There will be no removal of vegetation such as grasses and trees, but deadfall and some taller shrubs maybe removed.

The drill site will not be greater than 40 feet by 40 feet area. Brattice or other similar material will be placed on the ground beneath the drill rig. Minor digging, using hand tools may be necessary to level the drill rig using wood block or other materials.

A maximum of twenty pounds of coal will be removed per drill hole with a total of about 220 pounds from all the drill holes. This will be achieved by drilling a three-inch diameter hole. Upon completion, the drill hole will be sealed with cement from the bottom of the hole to ground level.

The exploration is projected to start on May 15, 2008 and end on or near July 15, 2008.

Findings:

The permittee has met the minimum requirements of this section.

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

The permittee stated to have a copy of the Notice of Intent to Conduct Minor Coal Exploration for review by an authorized representative of the Division upon request.

Findings:

The permittee has met the minimum requirements of this section in the R645 Coal Rules.

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

Analysis:

Roads

PacifiCorp will use only existing roads for this project no new roads will be constructed. The applicant of the Notice of Intent will be using US Forest Service roads for staging areas of heavy equipment. The US Forest Service will be notified 48 hours in advance of heavy equipment traveling on the road.

The applicant will be using U.S. Forest Development Roads #245 and #040 and #017. Prior to drilling, Energy West will obtain a permit for the use of these roads.

Topsoil

Topsoil will be separately removed, stored, and redistributed on areas disturbed by coal exploration activities. The method of drilling used by PacifiCorp will disturb a small amount of topsoil. The leveling of the drill rig and associated equipment may require a small amount of excavation. Brattice cloth is to be used to cover the ground to protect the topsoil and surface vegetation.

Diversions of Overland flows and streams

The applicant will not construct diversions or affect overland flows and streams. However, the applicant will be pumping water from streams for the drilling operation. The method is to lay an intake hose directly into the stream and pump the water to the drill site. The pump will be located near the stream. Using this method will not disturb the stream.

PacifiCorp will obtain the necessary permissions and water rights actions to take water for drilling from local drainages. A temporary exchange application will be filed to State of Utah, Division of Water Rights. The amount of water required for the project is estimated at 80,000 gallons for the entire drilling project or 40,000 gallons per hole.

Hydrologic Balance

The minor exploration project will have minor surface disturbance. The disturbance is limited to leveling the rig and associated structures. There will be no construction of a drill pad or impoundments; therefore, the impact on the hydrologic balance will be minimal, if any.

Acid- or toxic forming materials

Groundwater is not anticipated. However, if ground water is present it will be reported to SITLA, USFS, and DOGM and a determination will be made regarding the modification of the drill hole to a monitoring well.

Upon completion, each drill hole will be completely sealed with cement/bentonite from the bottom of the hole to ground level. Enough cement will be mixed and pumped into the hole to completely seal the coal horizon. The remainder of the hole will be filled completely with bentonite slurry to within five feet of the surface. A cement surface plug will fill the top five feet. A brass monument marker will be placed in the top of the cement surface plug with the hole number and year.

Findings:

The permittee has met the minimum requirements of this section in the R645 Coal Rules.

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Approximate original contour

The drill site areas will be basically flat with no major excavation occurring. Minor shoveling may be needed for leveling the drill rig. The area will be at approximate original contour.

Revegetation

All disturb area will be promptly vegetated. All areas disturb will be seeded or planted with the same seasonal variety native to the areas disturbed. The seed mix is indicated on Page 14 of the Letter of Intent.

Boreholes

Groundwater is not anticipated. However, if ground water is present it will be reported to SITLA, USFS, and DOGM and a determination will be made regarding the modification of the drill hole to a monitoring well.

Upon completion, each drill hole will be completely sealed with cement/bentonite from the bottom of the hole to ground level. Enough cement will be mixed and pumped into the hole to completely seal the coal horizon. The remainder of the hole will be filled completely with bentonite slurry to within five feet of the surface. A cement surface plug will fill the top five feet. A brass monument marker will be placed in the top of the cement surface plug with the hole number and year.

Facilities and Equipment

All drilling equipment and materials will be removed from the drill area once drilling is completed. Sealing will start thereafter and all equipment and material for sealing drill holes will be removed when sealing is completed.

Findings:

The permittee has met the minimum requirements of this section in the R645 Coal Rules.

PUBLIC AVAILABILITY OF INFORMATION

Regulatory Reference: 30 CFR 772.15;R645-203.

Analysis:

All information submitted to the Division under R645-200 will be made available for public inspection except as provided in R645-203-200.

Findings:

The permittee has met the minimum requirements of this section in the R645 Coal Rules.

RECOMMENDATIONS:

The permittee has met the minimum requirements for a Letter of Intent to conduct Minor Exploration. I recommend the Letter of Intent to be approved.

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