

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 2, 2005

TO: Internal File

THRU: Stephen J. Demczak, Environmental Scientist III/Engineering, Team Lead

FROM: Joseph C. Helfrich, Environmental Scientist III/Biology and Cultural Resources

RE: Additional Boundary to Facilitate 1st North Mining, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task ID #2222

SUMMARY:

On April 6 and April 8, 2005, Consolidation Coal Company submitted applications for an incidental boundary change to add 348 acres of coal leases to the permit area at the Emery Deep mine. The permit boundary addition can be located on the Emery East 7.5 minute quadrangle map approximately 2.5 miles south of the town of Emery, Utah in Township 22 South Range 6 East in portions of sections 22, 23 and 27. This memo will include a review of the Biology and Cultural Resources sections of the regulations.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

Included in Appendix XII-2 are vegetation and wildlife maps for the proposed permit area expansion. The maps also include a portion of the current permit boundary and the location of the 4th East portal. These maps are adequate for the proposed IBC. However, the Mining and

TECHNICAL MEMO

Reclamation plan needs to include vegetation and wildlife maps that accurately depict the vegetation and wildlife communities, the permit boundary, and the disturbed area boundaries for the Emery Deep and 4th East mining operations.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations. The information required updating the MRP prior to extraction or second mining must be submitted to the Division by no later than sixty days after the approval of this incidental boundary change.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The application includes an order one Archeological survey for the permit area expansion prepared by Montgomery Archeological Consultants. Order one surveys are typically conducted for permit boundary expansions that do not include surface disturbances. Their review resulted in the identification of four cultural resource inventories and eleven previously documented sites most of which will be eligible under the (NRHP). None of the sites were located within Consol's permit boundary expansion area. According to the conclusion in the survey "it is predicted that similar site densities and site types would be found in the proposed IBC". Since the application is for development or first mining only and there is no surface disturbance, the order one survey is adequate to meet the requirements of this section of the regulations. However, prior to extraction or second mining an order three or on the ground archaeological survey must be completed for the IBC and submitted to the Division. Concurrence from the State Historic Preservation Office is also required.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations. Prior to extraction or second mining an order three or on the ground archaeological

survey must be completed for the IBC and submitted to the Division. Concurrence from the State Historic Preservation Office is also required. The information required to update the MRP must be submitted to the Division prior to extraction or second mining.

VEGETATION RESOURCE FORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Vegetation information is described on page two and included in Appendix XII-2 of the application. Species include shadscale, greasewood, and saltgrass. According to the information in Appendix XII-2, there are no threatened or endangered plant species located in the proposed permit boundary expansion. The appendix does include a list of T & E plant species for Emery County and species that may be located in the vicinity of the proposed permit boundary expansion.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE RESOURCE FORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The application includes the current list of T & E wildlife species for Emery County. These species are not common to the proposed permit area expansion due to the lack of habitat required to sustain them.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

TECHNICAL MEMO

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:

Cultural Resource Maps

 An updated cultural resource map that identifies the proposed permit area expansion is included in the application as Appendix XII-3 figure one.

Findings:

The information provided is adequate to meet the requirements if this section of the regulations.

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

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

Analysis:

Protection and Enhancement Plan

 The only potential impacts to wildlife species would be from subsidence. As there is no subsidence anticipated with first or development mining in this case, the applicant would not need to address this section of the regulations at this time. However, prior to extraction or second mining the permittee will need to revise chapter nine of the Mining and Reclamation plan. That revision will need to include a narrative and/or plan that describes how wildlife will be protected and enhanced as a result of the potential impacts from subsidence. The information required to update the MRP must be submitted to the Division prior to extraction or second mining.

Endangered and Threatened Species

Potential water depletions from mining operations may have an affect on endangered fish species identified in pertinent fish recovery programs. Volumes of water consumed in mining processes in excess of 100-acre feet/year require mitigation with the U. S. Fish and Wildlife Service. Calculations for water depletions and gains from mining activities are provided for in the 2003 Midterm Review correspondence for the Emery Deep Mine. The correspondence from John Gefferth to Lowell Braxton dated November 26, 2003 describes the water consumed from mining consumption, (roof bolters, continuous miners, belt sprayers, and miscellaneous dust suppression) as received coal moisture at 6%. This is compared to the inherent coal moisture at 4% and the 2% difference is calculated in ac- ft per year, that is approximately 3.6 ac-ft per year. Water consumed from ventilation is approximately 25 ac-ft per year and mine water discharge is 420 ac-ft per year of water. Evaporation from the sediment pond would be negligible as there is a continuous inflow and discharge or outflow from the pond. The result is a net gain of 391.4 ac-ft per year of water. The information in the correspondence and explanation by way of personal communication are adequate for the proposed IBC. However, the Mining and Reclamation plan needs to be updated to include these figures. The information required to update the MRP must be submitted to the Division prior to extraction or second mining.

Bald and Golden Eagles

Bald Eagles do not nest in the area but are typically inhabitants during migration. The underground mining activities in this application will be limited to development mining only with little or no subsidence anticipated. As such impacts from development mining would be negligible. A raptor survey for the 4th East portal area was conducted in May of 2002. Survey results showed that there were one active, two inactive, and one dilapidated Golden Eagle nests on the cliffs in the canyons to the East and Southwest of the proposed permit area expansion. There were no nests within ½ mile of the proposed permit area expansion. Prior to extraction or second mining, the MRP must be updated to include a current Raptor Survey of the proposed permit area expansion.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

There are wetland areas within the proposed permit area expansion. However, the underground mining activities in this application will be limited to development mining only with little or no subsidence anticipated. As such impacts from development mining would be negligible. According to the wildlife map 10-1, appendix A of chapter 9 of the approved MRP, there are prairie dogs in the area that may provide nesting habitat for Burrowing owls. Prior to extraction or second mining, the MRP must be updated to include a protection plan for wetlands

TECHNICAL MEMO

from potential impacts due to subsidence and a burrowing owl survey for the permit area expansion.

Findings:

The information provided is adequate to meet the requirements if this section of the regulations.

GETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

Vegetation mapping for the permit area expansion was performed by Mt. Nebo Scientific and is included in the application as Appendix XII-2, "Plant Communities of the 1st North IBC Area". Community species include shadscale, greasewood, and saltgrass. The underground mining activities in this application will be limited to development mining only with little or no subsidence anticipated. As such impacts from development mining would be negligible.

Findings:

The information provided is adequate to meet the requirements if this section of the regulations.

RECOMMENDATIONS:

The application is recommended for approval.