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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 1, 2008

TO: Internal File

THRU: ^{SC} Steve Christensen, Lead

FROM: ^{Jeh} Joe Helfrich, Biology, Land Use, Cultural Resources

SUBJECT: Covol Prep Plant, Covol Technologies, Mine Name, C/007/0045 Task #3075

SUMMARY:

On January 15, 2008, the Division received an application from Covol Technologies Inc. to obtain a permit for a "**Dry Coal cleaning facility**". The application was determined to be "**Administratively Complete**" on March 14, 2008. This memo will include a review of the Biology, Land Use and Cultural Resource sections of the application in accordance with the Utah coal rules, R645 et sec.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

The application is formatted by chapter that corresponds with the R645 Coal Rules. The information contained within the chapters of the application needs to be formatted in accordance with the Utah Coal Rules.

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with **R645-301-120**; *the information contained within the chapters of the application needs to be formatted in accordance with the Utah Coal Rules.*

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

The application does not include information that meets the requirements of this section of the regulations with regard to the following statement made in Chapter 4, page 4-2, paragraph 2, *"The site area is not conducive to human historic habitation or use. No cultural resources are known to have existed in the permit area prior to facility construction"*. All data in the application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data.

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance

with **R645-301-130**; *the application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data* “*The site area is not conducive to human historic habitation or use. No cultural resources are known to have existed in the permit area prior to facility construction*”.

MAPS AND PLANS

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

Analysis:

Findings:

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:

There are no maps or technical data or Archaeological surveys, for the *permit and adjacent areas* as required by R645-301-131, 132, R645-301-411.140, .141,

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with; **R645-301-411**; *The application needs to include a Cultural resource survey for the permit and adjacent area, granted the current permit area is disturbed as was the Savage Coal Terminal prior to conducting archaeological surveys. The portion of the survey to the north may include information from Archaeological surveys included in the Savage Coal Terminal MRP. The Cultural Resource information in the MRP is confidential and the applicant would need to provide the Division with written permission from the company to access the information.*

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VEGETATION RESOURCE INFORMATION

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

Analysis:

The application needs to include a current list of Threatened and Endangered plant species for Carbon County. The application references information according to the Savage Coal Terminal MRP. That information needs to be included in the application along with the names of individuals responsible for collecting the information. The application needs to include a map and a vegetative survey of the permit and adjacent areas. Vegetative cover information, circa 1983, taken from the Savage Coal Terminal MRP is approximately 25 years old. That being the case the species composition of the vegetative communities could easily change. This information needs to be updated.

Findings:

3 The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with **R645-301-320**; *the application needs to include a map delineating the vegetative communities and a vegetative survey of the permit and adjacent area, granted the current permit area is disturbed as was the Savage Coal Terminal prior to conducting vegetation surveys. A portion of the survey to the north may include mapping and survey information from the Savage Coal Terminal MRP.*

Any references to "Savage Services Corporation 1983" regarding vegetation information are outdated. The application needs to include current vegetation resource information for the permit and adjacent areas.

FISH AND WILDLIFE RESOURCE INFORMATION

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

Analysis:

The application needs to include a current list of Threatened and Endangered wildlife species for Carbon County. Page 3-3, Section 3.2.2 references Savage Services Corporation 1983 for information about fish and wildlife. That information needs to be included in the application along with supporting data and maps and the names of the individuals responsible for acquiring the data and analyzing the information. The 1983 wildlife information is outdated; the

applicant will need to include current wildlife information in the application. Need to do burrowing owl survey. Are there any prairie dog towns?

Findings:

4 The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with **R645-301-320**; *the application needs to include a map delineating the habitats for high value wildlife species and a wildlife survey of the permit and adjacent area, granted the current permit area is disturbed as was the Savage Coal Terminal prior to conducting wildlife surveys. A portion of the survey to the north may include mapping and survey information from the Savage Coal Terminal MRP.*

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

Land Use information is provided for in chapter 4 of the application. According to the information in the Division's records and on page 4-1 of the application, the area was previously undisturbed even though it may have been zoned for industrial use as noted on the zoned land use map figure 4-1. Covol Technologies Inc. as a coal processing facility is currently using the land. *The application includes a narrative that describes the current uses of the land by Covol Technologies.*

Post Mining Land Use Information is included in Chapter 4, page 4-2, Section 4.1.2.1. After operations have been completed, the applicant intends to grade the site, stockpile topsoil and construct drainage controls. Except for grading to approximate original contour, topsoil stockpiling and the construction of drainage controls are not permitted at the conclusion of mining. *The applicant needs to redistribute topsoil and retain the drainage control structures until the completion of phase II reclamation.*

Findings:

5 The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval, the following information must be provided in accordance with **R645-301-411**; *the application needs to include a narrative that describes the current uses of the land by Covol Technologies.*

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The applicant needs to redistribute topsoil and retain the drainage control structures until the completion of phase II reclamation.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

Alluvial Valley Floor Determination

The application will be reviewed in accordance with the requirements of this section of the regulations pending the completion of a site visit to the facility.

Applicability of Statutory Exclusions

The application will be reviewed in accordance with the requirements of this section of the regulations pending the completion of a site visit to the facility.

Findings:

Pending

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:

The application needs to include the following maps for the adjacent areas:

Cultural Resource Maps

Monitoring and Sampling Location Maps

Permit Area Boundary Maps

Vegetation Reference Area Maps

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with **R645-301-411**; the application needs to include the following maps for the adjacent areas:

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Cultural Resource, Monitoring and Sampling Location, Permit Area Boundary and Vegetation reference area.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR 784.17; R645-301-411.

Analysis:

The applicant did not address this section of the regulations.

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval, the following information must be provided in accordance with **R645-301-411**; The applicant needs to address this section of the regulations.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

Analysis:

The application includes an air quality permit, (DAQUE#AN2952001-05), issued June 30, 2005 by the Division of Air Quality as appendix 4-1.

Findings:

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

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:

Protection and Enhancement Plan

Page 3-12, Section 3.5.8 states, *“The plan is designed to minimize disturbances and adverse impacts on fish, wildlife and their related environments. Covol will periodically educate their employees about wildlife needs and their importance”* The application needs to include information in this section that explains how the plan is designed to minimize disturbances, what wildlife needs are and how Covol will periodically educate their employees about wildlife needs and their importance.

Endangered and Threatened Species

Appendix 3-1 of the application includes a letter from the Division of Wildlife Resources, DWR, regarding species of concern. As noted in the letter and personal communication with Chris Wood, DRW habitat manager for the southeastern region, the information is not to be considered a substitute for on-the-ground biological surveys. The application needs to include a survey of the adjacent area for threatened and endangered species of plants and wildlife to ensure compliance with the Endangered Species Act.

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.1 of the application; *There are no known endangered or threatened species within the permit area.*

Mining operations may affect the habitat of the following endangered fish species, *Colorado Pike minnow, Razor back sucker, Humpback chub and Boneytail chub.* The application needs to include calculations for water consumption expressed in acre feet per year as required by the USFWS’s Colorado fish Recovery Program. Water consumption in excess of 100 acre feet per year will require a mitigation fee as determined by the FWS.

Bald and Golden Eagles

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.2 of the application: *“No suitable bald or golden eagle habitat exists in the permit or adjacent areas.*

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Appendix 3-1 of the application includes a letter from the Division of Wildlife Resources, DWR, regarding species of concern. It lists three sensitive species that occur within the general vicinity of the Covol facility, burrowing owl, bluehead sucker and white tailed prairie dog. The application needs to include a narrative that includes protection measures to be taken to avoid disturbances to habitats of high value for fish and wildlife, (burrowing owl, bluehead sucker and white tailed prairie dog), a map that shows the habitat for these species in relation to the permit area boundary and a burrowing owl survey.

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.2 of the application: "***No wetland or riparian habitat exists in the permit or adjacent areas***".

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with **R645-301-322, -301-333, -301-342, -301-358;**

Page 3-12, Section 3.5.8 states, "***The plan is designed to minimize disturbances and adverse impacts on fish, wildlife and their related environments. Covol will periodically educate their employees about wildlife needs and their importance***" The application needs to include information in this section that explains how the plan is designed to minimize disturbances, what wildlife needs are and how Covol will periodically educate their employees about wildlife needs and their importance.

Appendix 3-1 of the application includes a letter from the Division of Wildlife Resources, DWR, regarding species of concern. As noted in the letter and personal communication with Chris Wood, DRW habitat manager for the southeastern region, the information is not to be considered a substitute for on-the-ground biological surveys. The application needs to include a survey of the adjacent area for threatened and endangered species of plants and wildlife to ensure compliance with the Endangered Species Act.

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.1 of the application; ***There are no known endangered or threatened species within the permit area.***

Mining operations may affect the habitat of the following endangered fish species, ***Colorado Pike minnow, Razor back sucker, Humpback chub and Boneytail chub.*** The

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application needs to include calculations for water consumption expressed in acre feet per year as required by the USFWS's Colorado fish Recovery Program. Water consumption in excess of 100 acre feet per year will require a mitigation fee as determined by the FWS.

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.2 of the application: "***No suitable bald or golden eagle habitat exists in the permit or adjacent areas.***

Sections 3.2.2 and 3.2.2.2 indicate that two species of jackrabbit, desert cottontail and white tail prairie dog are known to exist near the Covol facility thus providing a prey base for the eagles. This section of the application, 3.5.8.2, needs to be revised to acknowledge the prey base species.

Appendix 3-1 of the application includes a letter from the Division of Wildlife Resources, DWR, regarding species of concern. It lists three sensitive species that occur within the general vicinity of the Covol facility, burrowing owl, bluehead sucker and white tailed prairie dog. The application needs to include a narrative that includes protection measures to be taken to avoid disturbances to habitats of high value for fish and wildlife, (burrowing owl, bluehead sucker and white tailed prairie dog), a map that shows the habitat for these species in relation to the permit area boundary and a burrowing owl survey.

The application needs to be accompanied by the names of the individuals that collected and analyzed the data, the dates of collection, analysis of the data and a description of the methodology used to collect and analyze the data to support the following statement noted on page 3-12, Section 3.5.8.2 of the application: "***No wetland or riparian habitat exists in the permit or adjacent areas***".

VEGETATION

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

Analysis:

Page 3-4, Section 3.30 describes measures taken to disturb the smallest practicable area. No disturbance beyond the current fenced disturbed/permit area anticipated.

Findings:

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

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The applicant needs to demonstrate that the disturbed area can be reclaimed prior to obtaining approval for an alternative post mining land use as required by **R645-301-413.100**. Chapter 3, page 3-1, paragraph 2, indicates that ***“Reclamation of the site will make it available for future industrial use rather than restoring the site to its undisturbed condition”***. Industrial use is a zoning classification and not necessarily an indicator of the land status prior to the applicant’s activities. According to the information in the Division’s records and on page 4-1 of the application, the area was previously undisturbed even though it may have been zoned for industrial use. That being the case the applicant is required to reclaim the disturbed area to its original condition. The referenced paragraph should be revised to reflect that.

Once the applicant demonstrates that the disturbed area can be reclaimed to its original condition, an application for an alternative post mining land use may be accepted by the Division.

According to the information in Chapter 4, page 4-2, Section 4.1.1.2, ***“No previous mining occurred in the permit area”***.

The postmining land use plan as described in Chapter 4, page 4-2, section 4.1.2.1 needs to recognize that reclamation must occur as an initial step in the process. Additional post mining land use information is included in the October 15, 2008 submittal, Chapter 4, page 4-3, paragraph 1. The information identifies the post mining land use of the remaining portion of the disturbed area as “Industrial” The application needs to include specific information about the type of industrial use, the entity responsible for the alternative post mining land use and a written request from the entity identifying their needs for the property to be included in the alternative post mining land use or Should the applicant chose not to pro does not include a clear and concise methodology for the reclamation of the remaining portion of the disturbed area .

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Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with; **R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275;**

The applicant needs to demonstrate that the disturbed area can be reclaimed prior to obtaining approval for an alternative post mining land use as required by **R645-301-413.100**. Chapter 3, page 3-1, paragraph 2, indicates that ***“Reclamation of the site will make it available for future industrial use rather than restoring the site to its undisturbed condition”***. Industrial use is a zoning classification and not necessarily an indicator of the land status prior to the applicant’s activities. According to the information in the Division’s records and on page 4-1 of the application, the area was previously undisturbed even though it may have been zoned for industrial use. That being the case the applicant is required to reclaim the disturbed area to its original condition. The referenced paragraph should be revised to reflect that.

According to the information in Chapter 4, page 4-2, Section 4.1.1.2, ***“No previous mining occurred in the permit area”***.

The postmining land use plan as described in Chapter 4, page 4-2, section 4.1.2.1 needs to recognize that reclamation must occur as an initial step in the process.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

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

Analysis:

This section of this document is addressed under the same heading in the ***operation plan/fish and wildlife information*** beginning on page 8 of this document.

Findings:

The findings are noted in the ***operation plan/fish and wildlife information*** section beginning on page 8 of this memo.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

Page 3-5, Section 3.40 indicates, "*post-operation revegetation of the site is not anticipated*". The application needs to be revised to include a reclamation plan for the disturbed area.

Revegetation: Timing

Page 3-6, Section 3.4.1.1 includes a schedule for reclamation, late fall with a contingency plan.

Revegetation: Mulching and Other Soil Stabilizing Practices

Page 3-6, Section 3.4.1.2 indicates, "*no mulch will be applied*" this section of the application needs to be revised to include mulching or other soil stabilizing practices.

Revegetation: Standards For Success

Page 3-6, Section 3.4.1.2 indicates that "*revegetation success will be monitored visually*" this section of the application needs to be revised to include a reference area, a map showing the location of the reference area, a monitoring schedule during the reclamation liability period and a statistically valid sampling technique for measuring vegetation success in accordance with the vegetation guidelines, (R645-356.110 Appendix A of the Utah Coal Rules).

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with; **R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283 and 302-284;**

Page 3-5, Section 3.40 indicates, "*post-operation revegetation of the site is not anticipated*". The application needs to be revised to include a reclamation plan for the disturbed area.

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Page 3-6, Section 3.4.1.2 indicates, "**no mulch will be applied**" this section of the application needs to be revised to include mulching or other soil stabilizing practices.

Page 3-6, Section 3.4.1.2 indicates that "**revegetation success will be monitored visually**" this section of the application needs to be revised to include a reference area, a map showing the location of the reference area, a monitoring schedule during the reclamation liability period and a statistically valid sampling technique for measuring vegetation success in accordance with the vegetation guidelines, (R645-356.110 Appendix A of the Utah Coal Rules).

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:

The following maps need to be included in the application

Reclamation Facilities Maps

Reclamation Monitoring And Sampling Location Maps

Reclamation Surface And Subsurface Manmade Features Maps

Reclamation Treatments Maps

Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the following information must be provided in accordance with; **R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731**; The following maps need to be included in the application:

Reclamation Facilities Maps

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cont'd.

Reclamation Monitoring And Sampling Location Maps

Reclamation Surface And Subsurface Manmade Features Maps

Reclamation Treatments Maps

COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A MINE

Regulatory Reference: 30 CFR Sec. 785.21, 827; R645-302-260, et seq.

Analysis:

Findings:

OPERATIONS IN ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR Sec. 822; R645-302-324.

Analysis:

Essential Hydrologic Functions

The application will be reviewed in accordance with the requirements of this section of the regulations pending the completion of a site visit to the facility.

Protection of Agricultural Activities

The application will be reviewed in accordance with the requirements of this section of the regulations pending the completion of a site visit to the facility.

Monitoring

The application will be reviewed in accordance with the requirements of this section of the regulations pending the completion of a site visit to the facility.

Findings:

Pending

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RECOMMENDATIONS:

The application is not recommended for approval at this time.

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