

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

October 9, 2003

TO: Internal File

THRU: Daron Haddock, Permit Supervisor

FROM: Priscilla Burton, Senior Reclamation Specialist/ Soils

RE: Abatement of NOV N03-39-1-1, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task # 1692.

SUMMARY:

The 4th East Portal development is in Section 27, T. 22 S. R. 6 E. Salt Lake Meridian. The disturbed acreage (bonded acreage) is shown on the Bonding Map, Exhibit D of the Reclamation Agreement. Most of the bonded acreage is under surface ownership of Consol Energy, Inc (see Plates I-1). This submittal (received September 12, 2003) describes the engineering controls and other measures to be implemented at the 4th East portal to abate NOV 03-39-1-1, including updates to text and plates for the addition of 1.5 acres to the bonded area (bringing the total bonded area to 248.5 acres), and Appendix X.C-3.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

Ownership and control information (Appendix I-1) has been updated with this application. The Emery Mine is wholly owned by Consol Energy, Inc. There are nineteen sister companies also owned by Consol Energy Inc. Consol Energy is owned by Rheinbraun AG of Germany and publically held stock. Rheinbraun AG is owned by RWE AG of Germany. Current information on all the office holders in the aforementioned companies is found in Appendix I-1. The information presented indicates that the narrative on Chapter I, page 6 needs to be re-written to reflect the change in ownership of Consol Energy, Inc.

All permits held by the associated companies are listed in Chapter I, Appendix I-3. Permits are listed for the following states: Virginia, Ohio, Kentucky, West Virginia, Pennsylvania, Illinois, North Dakota, New Mexico, Tennessee, and Wyoming.

Findings:

The information provided does not meet with the requirements for Identification of Interests. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-112.320, The narrative on Chapter I, page 6 needs to be re-written to reflect the change in ownership of Consol Energy, Inc as presented in Appendix I-1.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

Current violation information is provided in Appendix I-4 of Chapter I. In the last three years, the associated companies received 204 violations of which 157 were abated and terminated, 13 were withdrawn, and 34 are pending. Six violations were written for dust control

in the last three years. One in West Virginia (U-1025-92 (9), issued 4/28/03, is still pending. The Utah violation N-03-39-1-1 is being addressed with this application.

Findings:

The information provided meets the requirements of the Regulations.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

The right of entry is established in the MRP Appendix I-2 and Plate I-1. The owners of record are listed in order of Section, Township and Range. There are no Sections identified on Plate I-1, however. Right of Entry for surface activities for the road and monitoring facilities north of the topsoil and subsoil stockpiles on land owned by Glendon E. Johnson and the Right of Entry for a portion of the main mine facilities shown as disturbance on land owned by M. Robertson (Plate I-1). Documents supporting the applicant's surface use of these lands must be identified by type and date of execution in the Mining and Reclamation Plan.

Findings:

The information provided in the MRP and in the Exhibit D of the Reclamation Agreement is not adequate to establish Right of Entry. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-144, Plate I-1 and Exhibit D of the Reclamation Agreement must indicate Section numbers within the Township and Range and must include current information such as County Road #907.

R645-301-144.100, The Mining and Reclamation Plan must indicate the documents by type and date of execution and specific lands to which the documents pertain explaining the legal right of entry claimed by the applicant.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

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Analysis:

The County encroachment permit must be provided as per R645-301-115.300 and R645-103-234.100. The Planning and Zoning Commission meeting in Green River on September 10, 2003 included the following agenda item: 6. Consol Conditional Use Permit Action Item (construction on County road 915 at the Emery Deep Mine site as described in this amendment). A copy of the advertisement for the public hearing must be provided to meet the requirements of R645-103-234.

Findings:

The information provided does not meet the requirements of the Regulations. Prior to approval, the Permittee must provide the following in accordance with:

R645-103-234, The Permittee must provide an Affidavit of Publication from the legal notice placed in the local newspaper for the Planning and Zoning Commission meeting held in Green River on September 10, 2003.

R645-301-115.300 and R645-103-234.100, The County encroachment permit must be provided.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

The permit was issued, effective January 8, 2001 and will expire in January of 2006. According to the Administrative Overview the permit was issued for 5,180 acres. However the MRP relates that the Emery Deep Mine permit area is 5,060 acres (Chap IV p 1). This change apparently occurred as part of Amendment 95B. Please account for the difference between the permit acreage.

Findings:

R645-301-121.100, The Permittee should account for the difference in permit acreage between that stated in earlier versions of the permit and the present permit acreage, a difference of 120 acres.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

Within four weeks of the last publication date, a copy of the legal notice advertising the Emery County Planning and Zoning Commission meeting on September 10, 2003 in Green River, during which the plans for the expansion of County Road 915 were discussed should be made part of the application.

Findings:

Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-117.200, Please incorporate into the application a copy of the public notice for the Planning & Zoning Commission hearing on September 10, 2003, during which the Emery Mine proposal was discussed.

PERMIT APPLICATION FORMAT AND CONTENTS

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

REPORTING OF TECHNICAL DATA

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

Analysis:

The information in Appendix X.C-3 Norwest's Study of Control Measures to Minimize Fugitive [sic] Dusting at 4th East Portal was written by Norwest Corporation. The qualifications of the Norwest Corporation or its personnel did not accompany the application.

Findings:

The information provided in the application does not comply with the requirements for Reporting of Technical Data. Prior to approval, the Permittee must provide the following information, in accordance with:

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R645-301-132, The qualifications of Norwest Corporation must accompany the submittal.

MAPS AND PLANS

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

Analysis:

Maps accompanying the application must include the County Road 907 that was completed in 2002. i.e Cultural Resource Plate X.A-1, 4 East Portal Disturbance Area Plate III-1, Pre and Postmining Topography, Plate III-5.

Findings:

The information provided in the application does not comply with the requirements for Maps. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-141, Maps accompanying the application must include the County Road 907 that was completed in 2002. i.e Cultural Resource Plate X.A-1, 4 East Portal Disturbance Area Plate III-1, Pre and Postmining Topography, Plate III-5.

ENVIRONMENTAL RESOURCE INFORMATION

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

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

Chapter III, page 2, Table II-2 lists the Existing and Future Surface Disturbance Acres at the Emery Mine. This table shows that the area at the 4th East Portal has increased by 1.00 acre to 16.0 acres; and that there will be a 0.5 acre increase in the Proposed Near Future Disturbance Area, bringing its total to 86.2 acres. The potential surface operations area is listed as 289.6 acres. The total existing and future disturbance areas are listed as 442.5 acres. The location of

these areas are shown on Plates III-1 through III-4A. Plates III-2 and III-3 could not be found in the MRP.

The Division understands that there are 248.5 bonded acres within the permit area; that the permit area is between 5060 and 5120 acres large. The Division calculates from Table III-2 that there currently area 66.7 acres of disturbance currently at the Emery Mine. The Division is uncertain as to the location of the 86.2 acres of Proposed Near Future Disturbance Area and as to the location of 41.1 acres of the 289.6 acre Potential Surface Operations Area (289.6 potential disturbance – 248.5 bonded = 41.1 acres). The potential for such a sizeable surface operations area should be re-evaluated after the reclamation investigation described on page 4a, Chapter III is completed. .

Findings:

The information provided in application is requires clarification. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-142, The relationship of the 248.5 acre bonded area (Exhibit D) to the 289.6 acre Potential Surface Operations Area (Table III-2) should be described and the information outlined in Table III-2 must be accompanied by Maps outlining the areas described (Plates III-2 and III-3 mentioned on page 1 of Chapter III could not be found in the MRP).

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

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

Analysis:

Montgomery Archaeological Consultants conducted a cultural resource inventory of 40 acres north and east of the existing permit boundary (Chapter X, Appendix 5-7) in March 2003. The area surveyed includes the proposed 1.5 acre addition to the disturbed area boundary. Sites of cultural or historic significance were found within the 40 acres, but not within the 1.5 acre addition to the disturbed area. The archaeological site found eligible to be listed on the National Register of Historic Places is protected by fencing.

Findings:

The information provided meets the requirements of the Regulations.

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CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Analysis:

Climatological information is provided in Chapter X Part B of the MRP. The Permittee installed a weather station at the main Emery Mine facilities and initial data were anticipated by January 2003 (Chap. X, Part B, page 5). This weather station collects rainfall, snowfall and record wind speed and direction as well as barometric pressure and temperature.

Findings:

The information provided does not meet the minimum requirements for Climatological Information. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-724, Include in the N.O.V. Abatement plans the information recorded to date from the recently installed weather station for wind speed and direction.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

Appendix VII-3 summarizes the information known about the site from the 1981 survey conducted by James P. Walsh & Associates, Inc. of Boulder Colorado.

Addendum 1 to Appendix VII-3 documents a site survey conducted on May 31, 2003 by Mr. James Nyenhuis, Certified Professional Soil Scientist. This survey revised the original soils map, Plate VII-1, for the 4th East Portal Area. The revised map showed less rockland and larger areas covered by Castle Valley soils (now called Hideout Series). The map also included areas of Montwell series soils and Begay series soils.

This submittal provides Appendix VII-4, Letter from Mt. Nebo Consultants – Append 1.45 Ac Area to 4th East Portal Area. The Appendix VII-4 describes Mr. Nyenhuis' March 13, 2003 site visit to survey and map the soils eastward to the County Road. (Note: the revised soil map contains soil series names that differ slightly from those in the consultant's letter of March 26, 2003.)

The following soil series were mapped by Mr. Nyenhuis:

Hideout Soil Series = Loamy, mixed, superactive, calcareous, mesic Lithic Ustic Torriorthents;
Montwel Soil Series = Fine-loamy, mixed, superactive, calcareous, mesic Typic Torriorthents;
Begay Soil Series = Coarse-loamy, mixed, superactive, mesic Ustic Haplocambids;
Persayo Soil Series = Loamy, mixed, calcareous, mesic, shallow Typic Torriorthents;
Chipeta Soil Series = Clayey, mixed, active, calcareous, mesic, shallow Typic Torriorthents.

The area of boundary extension is dominated by Castle Valley soils, but includes the Persayo Series and a pocket of Montwel Series (App VII-4 Soils Map). [The Castle Valley series has been renamed Hideout by the Natural Resources Conservation Service (NRCS).] Appendix C of Appendix VII-3 describes the Hideout and Persayo Series.

HIDEOUT SERIES: Depth of the surface horizon is between 2 and 4 inches. Rock is encountered between six and twenty inches at the 4th East Portal. Specific depths to bedrock were recorded on the Soils Map, Addendum 1 to Appendix VII-3.

PERSAYO SERIES: A four inch topsoil layer is underlain by an eleven inch C layer. Calcareous weathered shale and siltstone is expected at fourteen inches. Coarse fragments are range from 0 - 15 percent. **These soils are dry in all parts of the moisture control section for more than three-fourths of the time that the soil temperature is above 41 degrees F. Peak periods of precipitation occur during late summer.**

MONTWEL SERIES: no information provided.

These shallow soils are particularly susceptible to the extremes of temperature imposed by coal fine accumulations.

Findings:

The information provided does not meet the minimum requirements for Environmental Resource Soils. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-222.200, The official description of the Montwel Series must be included in the application along with the other soil series descriptions provided in Appendix C of Appendix VII-3.

LAND-USE RESOURCE INFORMATION

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Analysis:

This submittal proposes to add an additional 1.5 acres of rangeland to the permit area. The 1.5 acres falls under the category of “semi-desert shallow loam range site” described on page 3 of Chapter X, Part D.

Findings:

The information provided meets the requirements of the Regulations.

ALLUVIAL VALLEY FLOORS

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

Analysis:

Alluvial Valley Floor Determination

The 1.5 acres to be added to the permit area falls in Section 27 of T22S, R6E in the headwaters of Christiansen Wash.

Chapter XI of the MRP details the Permittee’s analysis of the existence of alluvial valley floors (AVF) within the permit boundary (Chap XI, page 2). The study indicates that the two soils of agricultural importance are the Ravola loam and the Penoyer loam, both with 1 – 3% slopes (Chap XI, page 20). The study further indicates that Christiansen Wash is so incised as to be useless for flood irrigation and that Christiansen Wash receives its flow predominantly from diverted agricultural return flows from Muddy Creek (Chap XI, page 6).

The conclusion reached earlier by the Division that AVF’s do not exist along Christiansen Wash remains unchanged (February 25, 1985, Technical Analysis, p 28). In the same document the Division concluded that there were AVF’s in areas I and II shown on Plate XI-1.

Findings:

The Division determined in 1985 that an AVF exists in Sections 19 and 30 T. 22 S. R. 6 E. Salt Lake Meridian. There is not an AVF in the NE1/4 of Section 27, T. 22 S. R. 6 E. Salt Lake Meridian, where the 4th East Portals are located.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Analysis:

The area has shallow soils without irrigation and could not support farming. The addition of this 1.5 acres does not change the Division's assessment of the existence of prime farmlands within the permit area in Sections 20, 22, 29, 30 and 31 of T22S, R6E (February 25, 1985, Technical Analysis, p 41). These locations were shown on Plate 8-3 of the 1981 permit application. Plate 8-3 showed the 4th East Portal location as being Wildlife and Grazing with pasture land immediately north of the disturbed area. Plate 8-3 has been superseded by Plate VIII-1.

Findings:

The Division finds that there are prime farmlands within the permit area, but not within the area of 4th East Portal development, NE1/4 of Section 27, T. 22 S. R. 6 E. Salt Lake Meridian. The information provided meets the requirements of the regulations for the 1.5 acre addition to the permit area.

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

A figure accompanies the March 26, 2003 cultural resource inventory. This figure supplements Plate XA-1 Permit Area Cultural Resources and extends the inventoried area.

Findings:

The information provided meets the requirements of the regulations.

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OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The measurement of the success of Phase 1 must be presented in the application. A description of the measures to be employed in Phase 2 and a commitment to employ these measures should Phase 1 be unsuccessful, must be stated in the plan. Such a statement is found as a notation to Appendix X.C-3, but a commitment of this magnitude must not be buried in the Appendix.

Findings:

The information provided in the amendment is not adequate to meet the minimum requirements of the Regulations. Prior to approval the Permittee will provide the following in accordance with:

R645-301-526.222, (1) The means of measuring the success of Phase 1 must be presented in the application. (2) A description of the measures to be employed in Phase 2 and a commitment to employ these measures should Phase 1 be unsuccessful, must be clearly stated in the amendment to the Mining and Reclamation Plan.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

There are no public parks or places of historic interest within the proposed 1.5 acre addition to the permit area (Chapter X, Appendix 5-7).

Findings:

The information provided meets the requirements of the Regulations.

AIR POLLUTION CONTROL PLAN

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

Analysis:

The facility will include a screening/crusher building, and a 10,000 ton processed coal stockpile along with associated conveyors. The facility will handle a capacity of approximately 1,300,000 tons of coal per year (page 17b, Chapter II).

Appendix X.C-2 contains the Air Quality Approval Order (AO) from the Division of Air Quality dated August 5, 2002. The AO itemizes following at the 4th East portal site.

- The production limit of 1,300,000 tons/yr should not be exceeded
- The ROM surge pile may contain 1500 tons maximum.
- The maximum time period of operation for the 425 hp diesel generator should be 300 hours of operation /12 mo period (using #2 diesel fuel oil).
- Visible emissions from conveyor transfer points should not exceed 10% opacity and emissions from all other sources should not exceed 20% opacity. Observations of opacity are to be made in accordance with 40 CFR 60.11 (b) and 40 CFR 60, Appendix A, Method 9.

Chapter II, page 25 includes a statement that no air monitoring has been proposed at the site. The air quality approval order specifies air monitoring at the site for existing facilities and vehicles. The Division recommends that the Permittee designate an individual who will be responsible for the monitoring and record keeping required by the Air Quality permit.

This submittal outlines additional controls for fugitive dust control at the 4th East Portal site (Chapter X, page 5a and Appendix X.C-3). Accordingly, the AO must be modified. A copy of the Notice of Intent (NOI) to modify the AO was requested during a meeting between the Division and Consol Energy on August 26, 2003, but was not received with this submittal.

Findings:

The information provided does not meet the minimum requirements for Air Pollution Control Plan. Prior to approval, the Permittee must provide the following, in accordance with:

- R645-301-422**, (1) The application must include the Notice of Intent to modify the Air Quality Approval Order or other relevant correspondence with the Utah Division of Environmental Quality – Bureau of Air Quality. (2) The statement on page 25 Chapter II that no air monitoring is proposed is in error, the Air Quality Approval Order requires monitoring by the Permittee.

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R645-301-244.100, The Permittee should provide the Division with opacity readings of the coal stockpile made in accordance with the Air Quality Approval Order prior to and after implementation of the dust control strategies described in the application, so that the Division may evaluate the treatment methods effective on fugitive dust from the pile.

TOPSOIL AND SUBSOIL

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

Analysis:

Topsoil Removal and Storage

Previously Conducted Removal and Storage Activities:

Chapter II, page 17a indicates that the topsoil storage pile holds 7,900 cu yds of topsoil. The berms surrounding the north and west sides of the topsoil storage site are formed of topsoil as is the berm on the west perimeter of the disturbance boundary. Together these berms contain 1,400 cu yds of topsoil.

The Division believes that the topsoil berms surrounding the stockpile are all formed of topsoil as is the "berm" along the west perimeter. In truth, along the west perimeter, the soil profile was never disturbed to construct a berm. However, the soil was affected by vehicle traffic during construction of the west fence.

The method of topsoil salvage described on page 7 of Chapter IV differs from that described by the consulting soil scientist who was on site during the soil salvage (Addendum 1 to App VII-3). Mr. Jim Nyenhuis described salvage of the soils from the northwest to the southeast, with the Castle Valley soils being placed on the top of the topsoil storage pile.

During the summer 2003, topsoil was removed from the berm in the vicinity of the loadout and placed along the west side of the topsoil stockpile and along the west perimeter berm of the disturbed area. The Division did not understand the topsoil placement during these salvage activities to be as described on Figure IV-15.

On August 19, 2003, in response to N-03-38-1-1, the topsoil berm along the west end and the south fence line of the disturbed area (disturbed by vehicle traffic during the installation of a transmission line) were broadcast seeded and hydromulched. The last statement on page 7 Chap

IV indicates that the entire topsoil pile was seeded at this time. This is incorrect. In addition, this statement described a warm season species mix. In fact, the species mix used is outlined on page VIII-20 Section VIII.C.3 of the MRP, except that yellow sweet clover was omitted from the mix. A copy of the seed tag for the August 19, 2003 seeding was received from the Permittee on September 22, 2003. The plan should clearly describe the species in the seed mix and remove reference to a warm season mix, as the mix used contains both warm and cool season species. This same mix was used on the 4th East portal topsoil stockpile southern berm.

Topsoil berms are drawn on a second Figure IV-15. The illustration in this figure does not agree with the Division's understanding of the location of topsoil at the site.

Proposed Activities:

Chapter III Reclamation Plan, page 21 indicates that an average of nine inches topsoil (or 1200 yards) will be removed from the additional acre to be disturbed east of the existing permit boundary fence line. The soil map in Appendix VII-4 supports this evaluation, although an average of ten inches of soil over rock may be available, bringing the volume to 1344 cu yds. Since every yard of topsoil is needed, the plan must indicate that the topsoil salvage operation will be directed by a qualified soils specialist.

Chapter IV page 7a describes a process of harvesting existing cryptogams from the surface of the 1.0 acres before disturbance and before topsoil salvage. The harvested cryptogams will be placed on the topsoil stockpile and the location(s) marked and recorded for future evaluation. The following questions remain concerning cryptogam salvage: Will the cryptogams be harvested manually and collected in buckets for respreading or will equipment be used. To what depth will the surface soils be salvaged?

Chapter IV, page 7a further describes that the southwest corner and south berm of the stockpile will be pushed inward to accommodate the placement of soil salvaged from the additional 1.0 acre of disturbance and the topsoil currently in-place between the water tank and the topsoil. The newly salvaged soils will be used to re-build the berm. This concept is illustrated on Plate IV-15. The Division can agree with this concept, except that the soils that are currently on the eastern half of the south topsoil berm must not be disturbed as they are part of an ongoing reclamation treatment study.

Plate III-1 does not indicate an additional acre of topsoil removal in the legend.

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Findings:

The information provided does not meet the minimum requirements for Topsoil and Subsoil Salvage. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-231.100 and R645-301-121.100 and R645-301-121.200, The plan must accurately describe the topsoil salvage activities that have occurred at the site. (1) The description on page 7 of Chapter IV and Figure(s) IV-15 do not match the consultant's report of the activities nor the Division's collective memory of what has occurred at the 4th East Portal. (2) The last statement on page 7 Chap IV incorrectly indicates that the entire topsoil pile was seeded on August 19, 2003. (A diagram may be necessary.) The last statement on page 7 Chap IV incorrectly describes a warm season species mix being used to seed soil salvaged and added to the topsoil stockpile and berms in August 2003. To avoid confusion, the plan should clearly itemize the seeds in the seed mix and remove reference to a warm season mix, as the mix used contains both warm and cool season species. (See deficiencies written under General Contents Permit Application Format & Contents as well as the Operations Vegetation section for further discussion.)

R645-301-231.100 and R645-301-232.200, (1) The soil salvage operation at Emery Deep must be directed by a qualified soils specialist. (2) The eastern half of the south topsoil berm must not be affected by future soil salvage.

R645-301-232.200, Plate III-1 does not indicate an additional acre of topsoil removal in the legend.

R645-301-232.500, The narrative on page 7a of Chapter IV must include details about cryptogam harvest prior to topsoil salvage such as whether the cryptogams will be salvaged with heavy equipment or manually and to what depth will the surface soils be salvaged? How will the cryptogams be handled?

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Analysis:

During a meeting between the Division and Consol Energy on August 26, 2003, the strategies for dust control described in Appendix X.C-3 were approved in concept with the following additions:

1. A designation in the permit of a stockpile manager, responsible for the construction, implementation and maintenance of the dust control strategies, as well as wind data collection. The supervisor would direct on-site activity, familiarize personnel with the dust control strategies, train individuals to conduct maintenance on the water sprays, water cannon, and wind fence; train truckers in environmentally sound loading techniques, and coordinate all dust control activities.
2. A maintenance plan for the controls including a program and log
3. A means of providing a working demonstration of the dust controls during inspections.
4. Clarification of the spray points to be implemented in Phase I.
5. Rationale for the engineering of the devices presented, including parameters considered.
6. Addition of the coal-fine disturbed area to the disturbed area.
7. A copy of the application to modify the Air Quality Approval Order
8. A means to measure of the success of the dust control strategies and to determine when implementation of Phase II is required.
9. An escrow agreement providing assurance of Phase 2 implementation.
10. An explanation for any delay in implementation beyond October 15, 2003.

All these items must be addressed before approval.

Findings:

The information provided does not indicate that the dust control/support facilities will be constructed or implemented using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-526.220, R645-301-526.221, R645-301-526.222, The plan must include the following additions: (1) A designation in the permit of a stockpile manager, responsible for the construction, implementation and maintenance of the dust control strategies, as well as wind data collection. The supervisor would direct on-site activity, familiarize personnel with the dust control strategies, train individuals to conduct maintenance on the water sprays, water cannon, and wind fence; train truckers in environmentally sound loading techniques, and coordinate all dust control activities. (2) The maintenance plan (Appendix I) requires improvements as discussed on October 8, 2003. (3) A means of providing a working demonstration of the dust controls during inspections. (4) Clarification of the spray points to be implemented in Phase I. (5) Rationale for the engineering of the devices presented, including parameters considered. (6) Addition of the coal-

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fine disturbed area to the disturbed area. (7) A copy of the application to modify the Air Quality Approval Order. (8) A means to measure of the success of the dust control strategies and to determine when implementation of Phase II is required. (9) An escrow agreement providing assurance of Phase 2 implementation. (10) An explanation for any delay in implementation beyond October 15, 2003.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

The plan must indicate that all topsoil stored in berms will be signed as such.

Findings:

The information provided does not meet the requirements of the Regulations. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-521.270, The plan must indicate that all topsoil berms will be clearly marked as topsoil storage.

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 post mining land use will be grazing/wildlife habitat as described in Chapter X., Part D. Section 5.

Findings:

The information provided meets the requirements 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

Plate III-5 must be redrawn to include the additional 1.5 acre disturbed area.

The Worksheet in Appendix IV.B.1 indicates that the area of topsoil salvage will have topsoil replaced and the surface gouged to a depth of 6 inches to a foot (page A-12). The area where topsoil was stored in place will be ripped to a depth of 1.5 feet on two foot centers (page A-9). This will likely promote areas of increased erosion along the ripped zones without alleviating compaction between the ripped zones. The Division will require that the entire site is gouged to a six inch to a foot depth.

Findings:

The information provided does not indicate that the backfilling and grading activities will be completed using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-553.140 and R645-301-244.200, Chapter III and the Bonding Worksheet in Appendix IV.B.1 must indicate that the entire site will be gouged to a depth of six inches or one foot.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

Page 2 of the Worksheet in Appendix VI.B.1 indicates that two inches of cryptogamic crust will be salvaged from the topsoil stockpile and respread over the surface of the topsoiled, reclaimed site. The plan should specify that ripping or gouging of the topsoiled site will occur prior to the respreading of cryptogams and that cryptogams will be broadcast manually.

TECHNICAL MEMO

Findings:

The information provided does not indicate that the soil will be stabilized using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, The sequence of topsoiling, broadcasting of cryptogamic soil and ripping/gouging should be indicated clearly in the reclamation plan outlined in Chapter III of the application as well as the Worksheet in Appendix VI.B.1.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

The plan should indicate the interim reclamation measures that were undertaken in conjunction with the abatement of N03-38-1-1 (August 5, 2003), interim seeding and hydromulching of the 1.0 acre area now proposed for use as a new haul route. Also, the seeding of the area disturbed by vehicle traffic during the installation of the transmission lines (along the south fence line) which was seeded and hydromulched along with the 1.0 acre addition on August 19, 2003. Likewise, the plan should mention the contemporaneous reclamation of the area disturbed by vehicle traffic during construction of the west fence line (hydromulched only during the fall of 2002) and the area along the southeast fence line affected by vehicle traffic during installation of the transmission lines and repairs to transmission lines (hydromulched only during the fall of 2002).

Findings:

The information provided does not meet the requirements for clear and concise reporting of interim reclamation. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, the plan must indicate measures taken to date to stabilize areas along the fence lines affected by vehicle traffic.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The reclamation plan for the 4th East portal should indicate that the entire 16 acres will be gouged after topsoiling (Worksheet 4B Earthwork Quantity and page A-12 Appendix IV.B.1). This will add an additional 6 acres of surface roughening which equates to an additional 4,033 L.C.Y. under roughening on Worksheet 4B. The total area to be roughened would then be 12,907 L.C.Y.

Using the 12,907 L.C.Y. figure in the calculations on page A-12 Appendix IV.B.1 would require an additional 21 hours of time for the hydraulic excavator. This brings the total time hours required for the CAT 416 backhoe to 67 Worksheet 13 Summary Calculation of Earthmoving Costs and the Total cost for that item would be \$4,891. This is a difference of \$1,533 in a Grand Total earthmoving budget of \$222,486 for the 4th East Portal site (about 0.7%). Consequently this adjustment to the reclamation procedure seems inconsequential to the overall cost of the reclamation.

Findings:

The information provided does not indicate that the soil will be stabilized using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, The bonding calculations for the 4th East portal should indicate that the entire 16 acres will be gouged after topsoiling (Worksheet 4B Earthwork Quantity and pages A-12 and A-17 of Appendix IV.B.1).

RECOMMENDATIONS:

The submittal is not recommended for approval at this time.