



**State of Utah**

**Department of  
Natural Resources**

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**Division of  
Oil, Gas & Mining**

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JK

January 17, 2007

John A. Gefferth, Environmental Engineer  
Consolidation Coal Company  
P.O. Box 566  
Sesser, Illinois 62884

Subject: Deficiencies for 1st North Federal Lease Boundary Addition, Task ID #2646, Consolidation Coal Company, Emery Deep Mine, C/015/0015

Dear Mr. Gefferth:

The Division has reviewed your application for the 1<sup>st</sup> North federal lease boundary addition. The Division has determined that there are some deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and an approval can be granted. Those deficiencies are listed as an attachment to this letter.

Each deficiency identifies its author by that author's initials in parentheses, such that your staff can directly communicate with that individual should any questions arise relative to the preparation of Consolidation Coal Company's response to that particular deficiency.

Please note that there are no deficiencies relative to bond determination. Division consultation with the NRCS concerning the prime farmland status irrigated lands within the federal IBC is in process.

Please respond to these deficiencies as soon as possible, but by no later than April 17, 2007, such that we may efficiently process your application.

Sincerely,

Pamela Grubaugh-Littig  
Permit Supervisor

an  
Attachment  
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**Deficiency List**  
Task ID #2646  
1st North Federal Lease Boundary Addition

The members of the review team include the following individuals:

Wayne H. Western [whw]  
Priscilla Burton [pwb]  
Joe Helfrich [jch]  
Jim Smith [jds]  
Steve Chistensen [skc]

**R645-301-520**, The Permittee must give a description of the permit area in the text or in a table. The information must state how many acres are fee, State and federal.  
[whw]

**R645-301-521.132 and R645-301-521.190**, The Permittee must update all maps in the MRP that show the permit boundary to show the inclusion of the 160-acre IBC.  
[whw]

**R645-301-525.460 and R645-301-525.490**, The Permittee needs to describe in detail the anticipated effects of subsidence in the 160-acre IBC. The Permittee must state the anticipated angle-of-draw. The description must include a map that shows the anticipated subsidence contours lines. [whw]

**R645-301-525.130**, The Permittee must include in the subsidence survey information about the quality and quantity of State appropriated water in and around the 160-acre IBC. In addition, the Permittee must give a copy of the update survey to property owners and water conservancy districts. [whw]

**R645-301-525.400**, The Permittee must update the subsidence plan in Section V. B of the MRP to include references to the subsidence monitoring activities that will occur in the 160-acre IBC. For example, • item 1a on page 36 of Chapter V, only mention monthly subsidence monitoring on the 1<sup>st</sup> and 2<sup>nd</sup> south panels and • item 2a on page 37 of Chapter V, only mention photographs above the 1<sup>st</sup> South panel. [whw]

**R645-301-132**, Please indicate the source of the information for Figure XIII-1 on the figure. [pwb]

**R645-302-314.400**, For the purposes of providing baseline information, the application should provide a summary of the productivity and crops grown on the irrigated acres within the First North federal IBC. [pwb]

**R645-301-624.300**, Section III.C.5 of the application and section V.A.4 of the MRP should be updated with recent roof and floor analyses conducted during the past years exploration drilling. [pwb]

**R645-302-323.110**, The irrigation system is shown on Plate V-3. The source of water for the irrigation must be indicated on the Plate as well. •Plates VI-6 and VIII-1 indicate the current land use of irrigated pasture. The acreage of irrigated land is not accurate according to the information available from the Farm Service Agency showing approximately 48 acres under irrigation. • MRP App. XI-2 Section 2.3.4 contains monitoring commitments for the ditch and water supply to the Jack Lewis field during operations and a topographic survey of the AVF in the upper Quitchupah Creek valley bottom prior to bond release. A similar commitment should be put into the MRP and extended to the parcels owned in T . 22 S., R. 6 E., SLBM by D.U.Company and Kenneth L .& Earlene Christiansen. [pwb]

**R645-301-411**, The application needs to include a ground or class three survey for those areas where full extraction will occur. [jch]

**R645-301-320**, Plate VIII-1 needs to be updated to include the vegetative communities and permit boundary changes. [jch]

**R645-301-322**, Plate 10-1 needs to be updated to include the IBC boundary, the high value winter elk habitat, substantial value moose year long S-m-yl needs to be deleted from the legend, high priority deer winter, H-e-wt and substantial value elk year long, S-e-yl, need to be correctly identified on Plate 10-1. [jch]

**R645-301-411**, The applicant needs to address this section of the regulations. [jch]

**R645-301-323, 301-411, -301-521, -301-622, -301-722, -301-731**, All maps in the MRP that reflect the current permit boundary must be updated to include the proposed IBC. Archaeological site maps for the proposed IBC must be included in the application. Plate X.A-1, Permit Area Cultural Resources needs to be updated to include the proposed IBC area. Cultural Resource maps for the proposed IBC must be included in the application. Surface and subsurface ownership maps need to be included in the IBC application. [jch]

**R645-301-411.142, 143,144**, The applicant needs to address these sections of the regulations. [jch]

**R645-301-322, -301-333, -301-342, -301-358**, The application needs to include the following information; • A narrative and/or plan that describes how wildlife will be protected and enhanced as a result of the potential impacts from subsidence. • Calculations and criteria that reflect the mine water consumption in acre feet per year for the current and proposed mining operations. • A current Raptor Survey of the proposed permit area expansion. • A mitigation plan for wetlands from

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

**R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284,** The application needs to include a time line for the implementation of the remaining phases of the evaluation of final revegetation plans.

**R645-300-121.120, -141, -154; R645-301-142, -521, -525.100,** All maps showing the permit area boundary need to be updated to include the IBC in the permit area boundary. [jds]

**R645-301-121.200,** The Permittee should address the discrepancy from the applications C2 form and the submitted pages. The C2 form states that pages 168a through 168e of the revised PHC should be added to the MRP. However, the text on pages 168a through 168e is struck out. The Permittee should address the discrepancy of Plate V-20 and page 4 of the submitted Chapter XIII. Page 4 of the submitted Chapter XIII states, "Based on data provided on Plate V-20 of the approved MRP, approximately 300 to 500 feet of overburden overlies the IJ zone within the IBC area". Upon inspection of the plates, Plate V-20 depicts the overburden of the UI zone. Plate V-19 depicts the J seam geology. As the application has stated, the mining will occur within the "IJ seam" and it appears that there is no IJ geology seam plate depicting the overburden in the IBC area. The Permittee should address the discrepancy on page 162 of the submitted Chapter XIII. In the 5<sup>th</sup> complete paragraph on page 162, the Permittee states, "Average inflow to the Emery Mine during the period of 1979 through 2005 is shown in Figure VI-20A (see also Appendix VI-9). Figure VI-20A on the following page depicts the average mine water discharge. [skc]

**R645-301-726,** The Permittee should commit to providing the Division with the MODFLO modeling results and calculations upon its completion. [skc]

**R645-301-728,** The Permittee needs to further discuss/analyze the potential impacts from full extraction mining and subsidence on both ground and surface water resources within the IBC area as well in areas adjacent to the proposed mine expansion (i.e. impacts and/or changes to groundwater levels, flow directions, hydrologic balance, base flow contributions to surface water etc...). See attached technical memo for further discussion in PHC section. [skc]

**R645-301-722.10,** The Permittee should provide the Division with the location and extent of subsurface water, if encountered, within the proposed IBC and adjacent areas, including, but not limited to, areal and vertical distribution of aquifers, and portrayal of seasonal differences of head in different aquifers on cross sections and contour maps. [skc]

**R645-301-722.200,** The Permittee should provide the Division with the locations of

water-supply intakes for current users of surface waters flowing into, out of, and in the proposed IBC area, as well as the location of surface water bodies such as streams, stock watering ponds, springs, constructed or natural drains, and irrigation ditches within the proposed permit expansion and adjacent areas. [skc]

**R645-301-525.120**, The Permittee needs to provide a narrative indicating whether subsidence, if it occurs, could contaminate, diminish or interrupt State-appropriated water supplies in the proposed IBC area as required by R645-301-525.120. [skc]

**R645-301-525.480**, The Permittee needs to provide the Division with a description of the measures to be taken to replace adversely affected State-appropriated water supplies or to mitigate or remedy any subsidence-related material damage to the land in the proposed IBC as required by R645-301-525.480. [skc]

**R645-301-731.530**, The Permittee needs to provide a commitment to promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by underground coal mining and reclamation activities in the proposed IBC area as required by R645-301-731.530. [skc]

**R645-301-731**, The Permittee needs to discuss and analyze the irrigation networks that are utilized within the proposed IBC area as well as the adjacent areas by providing information regarding their sources, uses, locations relative to coal mining operations etc. [skc]

**R645-301-731.210**, In light of the amount of ground water located within the proposed IBC area and the planned utilization of full extraction mining techniques, the Permittee needs to discuss why additional ground water monitoring is not necessary within the proposed IBC area. [skc]

**R645-301-731.220**, Given the existing pastureland and irrigation ditch network located within the proposed IBC area, the Permittee needs to discuss why additional surface water monitoring is not necessary within the proposed IBC area. [skc]

**R645-301-731.300**, The Permittee should discuss the potential for acid- or toxic-forming materials to be produced within the proposed IBC area or provide a link to the approved MRP where this area is discussed. [skc]

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**R645-301-722.200**, The Permittee should provide the Division with the locations of water-supply intakes for current users of surface waters flowing into, out of, and in the proposed IBC area, as well as the location of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains, and irrigation ditches within the proposed permit and adjacent areas need to be depicted as well. [skc]

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