

**CONSOL ENERGY**

Consolidation Coal Company

P.O. Box 566

Sesser, IL 62884

(618) 625-2041

February 13, 2007

Pamela Grubaugh-Littig  
 Utah Division of Oil, Gas and Mining  
 Coal Program  
 1594 West North Temple, Suite 1210  
 Box 145801  
 Salt Lake City, Utah 84114-5801

*John Gefferth*  
 C/015/0015 OK  
 #2749

Re: Emery Deep Mine Permit C/015/015  
 Amendment to MRP (1<sup>st</sup> North Federal Lease Incidental Boundary Change, deficiency response)

Dear Mrs. Grubaugh-Littig:

Please consider these responses to the divisions deficiencies (task 2646) for the above mentioned amendment submitted to your department on November 12, 2006, and revised on December 12, 2006. Enclosed please find 4 complete copies of Chapter XIII, and all previously submitted MRP pages, including an executed C1 form and a C-2 form. An additional copy has been forwarded to your Price field office. Please place Chapter XIII, Appendix XIII-3 (Class 3 Cultural Resource report) in the confidential file.

To facilitate review I have included the Divisions deficiencies (bold type) and Consol responses (italic). All of these responses are included in the MRP and Chapter XIII. A cd is included with the entire submittal in pdf format, and all MRP maps that were not pertinent to this submittal are included in pdf format with the new permit boundary. Due to the large volume of maps and only the permit line changing, they will be submitted prior to approval.

Since the original submittal Consol has revised and submitted the R2P2 and the LMU to include federal tract U-50044. Due to the fact that BLM will only support full extraction, Consol requests that this submittal be changed to full extraction (planned subsidence). Consol intends to request full extraction (planned subsidence) for the entire permit area in a future submittal. Also the Probable Hydrologic Consequence (PHC) has been revised to reflect full extraction and planned subsidence. The original PHC was compiled in the 1970's and did not contemplate planned subsidence.

If you have any questions concerning this request, please call me at (618) 625-6850.

Sincerely

*John Gefferth*  
 John Gefferth  
 Environmental Engineer

Refer to *Expandable 02132007*  
 file in *C0150015, 2007, INCOMING*  
 for additional information

CC: Karl Houskeeper – DOGM-Price Field Office-with attachments

Attachments

JAG/jag emboundrev2.defres.doc

Refer to *Confidential 02132007*  
 file in *C0150015, 2007*  
 for additional information

RECEIVED

FEB 13 2007

DIV. OF OIL, GAS & MINING

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** Consolidation Coal Company  
**Mine:** Emery Mine **Permit Number:** 015/015  
**Title:** 1st North Federal Lease boundary addition 2/07  
**Description,** Include reason for application and timing required to implement:  
deficiency responses

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?  
*Explain:* \_\_\_\_\_
- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you.** (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Jonathan M. Pachter  
 Print Name

Jonathan M. Pachter 2/7/07  
 Sign Name, Position, Date, Director, Permitting and Water Resources  
 COMMONWEALTH OF PENNSYLVANIA

Subscribed and sworn to before me this 7th day of February, 2007

Janice L. Davis  
 Notary Public

Notarial Seal  
**Janice L. Davis, Notary Public**  
 Upper St. Clair Twp., Allegheny County  
 My Commission Expires June 23, 2009  
 Member, Pennsylvania Association of Notaries

My commission Expires: June 23, 2009  
 Attest: State of Pennsylvania } ss:  
 County of Allegheny

<b>For Office Use Only:</b>	Assigned Tracking Number:	Received by Oil, Gas & Mining  <b>RECEIVED</b>  <b>FEB 13 2007</b>  DIV. OF OIL, GAS & MINING
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Task ID #2646  
1st North Federal Lease Boundary Addition

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]**

*Please refer to CH IV Page 1(revised 9/06) of this submittal for a description of the permit area. Refer to Plate I-1, "Surface and Coal Ownership" for revised legend which list the coal ownership by acreage between federal, state and private coal.*

**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]**

*Please refer to CD, Emery Permit Maps for electronic .pdf of all emery maps depicting the revised permit boundary for all maps that do not pertain to this IBC. Paper copies of these maps will be provided at time of submitting the clean copy revision. All Plates that pertain to the IBC and the deficiency responses are included with this package.*

**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]**

*Please refer to CH V Page 27 for a discussion of angle of draw and depth of subsidence. Please refer to Plate V-5 (Subsidence Monitoring Points and Buffer Zones) for subsidence isopacs.*

**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 160acre IBC. In addition, the Permittee must give a copy of the update survey to property owners and water conservancy districts. [whw]**

*Refer to approved MRP, Chapter VI, Volume 1, pages 139 thru 143 for description of Approved water rights.*

*Data search of the State of Utah, Division of Water Rights database for relevant water rights within or adjacent to Section 22, Township 22 South, Range 6 East found all rights match the MRP listing.*

**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 1st and 2nd south panels and . item 2a on page 37 of Chapter V, only mention photographs above the 1st South panel. [whw]**

*Refer to revised pages of Chapter V, Page 36 and 37. Narrative has been revised to note that all panels shall be monitored where planned substance is anticipated to occur. Pictures of the surface area shall be taken pre and post subsidence of the area.*

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

*Refer to page CH XIII page 2 of the application for description of sources used to obtain soil information (Swenson, 1970). Consol has chosen to include the unpublished soils map as CH XIII-page 3a and revise CH XIII-page 2.*

**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]**

Consol maintains that baseline information pertaining to the productivity and crops grown on private fee surface is not required under R645-302-314.400. Consol is not conducting 'coal mining and reclamation operations' on these specific lands as defined at R645-100-200.

**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]**

*Additional drilling in the area is approved and anticipated to take place in 2007. Information will be submitted when obtained.*

*Discussion of this information can be found within the approved MRP in Chapter V, Section V.A.4, "I-Zone Roof and Floor Characteristics", Pages 7 thru 15 and Section V.A.5, "Acid, Alkaline, or Toxic Potential", Page 16, Section V.A.6, "Pyrite, Marcasite, and Sulfur Content", Page 17 thru 19.*

**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. [pwb]**

*The source of water for the irrigation ditches originates from Muddy Creek. This point of diversion is over 20 miles NE of the proposed permit area, therefore it is not shown on Plate V-3. This water is covered under the water rights controlled by the Muddy Creek Irrigation Company listed within Chapter VI, Volume 1, Section VI.A.4, Page 141 of the MRP.*

*CH XIII page 8, and Plate V-3 have been updated to include this data.*

**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. [pwb]**

*The information submitted by Consol came from an on site field investigation conducted September 2006 of the IBC area. Consol has contacted the Farm Service Agency and obtained copies of the information they provided to the reviewer concerning this deficiency. Consol requested from the Farm Service dates for the photographs and field designations, this data could not be provided. Per Roger Barton of the Farm Service Agency, this data changes yearly as the farmer decides which area to irrigate and which to leave dry. Please refer to revised CH XIII- Page 2 for a discussion.*

**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 Quitcupah 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]

*The correct Appendix is XI-3. Please refer to revised CH XIII- Page 12 for a discussion of the irrigation ditches*

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

*Montgomery Archeo has performed the class three survey. The data is included as Chapter XIII-Appendix XIII-3.*

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

*CH VIII, Plate VIII-1 has been update to include the vegetative communities and the revised permit boundary.*

**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]**

*Ch IX, Plate 10-1 has been updated to reflect the elk and mule deer new boundaries based on 2004 DWR GIS databases. The S-M-yl has been removed from the legend. Due to the fact that this plate is part of a consultant report, the old boundaries have been left on and noted in the legend.*

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

*Refer to Chapter XIII Appendix XIII-2 for vegetation & land use information pertaining to the proposed IBC. Refer to CH XIII, section XIII.C.3 for the defined landuse of the IBC area.*

**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. [jch]**

*Please refer to CD, Emery Permit Maps for electronic .pdf of all emery maps depicting the revised permit boundary. Hard copies of maps will be provided at time of submitting clean copy revision.*

**Archaeological site maps for the proposed IBC must be included in the application. [jch]**

*Montgomery Archeo has performed the class three survey. The data will be included as Chapter XIII-Appendix XIII-3.*

**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]**

*Plate X.A-1 has been updated to reflect the new permit boundary*

*Montgomery Archeo has performed the class three survey. The data will be included as Chapter XIII-Appendix XIII-3.*

*Please refer to Chapter I Plate I-1 (Surface and Coal Ownership)*

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

*Montgomery Archeo has performed the class three survey. The data will be included as Chapter XIII-Appendix XIII-3.*

**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.**

*Consol maintains that a wildlife enhancement plan on these private fee surface lands is not required under R645-301-322, and R645-301-333. Consol is not conducting 'coal mining and reclamation operations' on these specific lands as defined at R645-100-200*

**Calculations and criteria that reflect the mine water consumption in acre feet per year for the current and proposed mining operations.**

*Please refer to CH II, Page 25a*

**A current Raptor Survey of the proposed permit area expansion.**

*Refer to Appendix D – Result of May 2006 Raptor Survey of the Notice of Intent to Conduct Minor Coal Exploration at the Emery Mine, Submitted August 2006 and Revised October 2006. In addition, the Raptor Survey will be provided as part of the annual report which will be submitted prior to April 1, 2007.*

**A mitigation plan for wetlands from potential impacts due to subsidence and a burrowing owl survey for the permit area expansion. [jch]**

**WETLANDS:**

*Please refer to CH V, Page 41 for a discussion on wetlands.*

*A wetland mitigation plan will be implemented in areas where jurisdictional wetlands are identified in areas where planned subsidence is contemplated per CH V, Plate V-5 (Subsidence Monitoring Points and Buffer Zones). Prior to subsidence, Consol will invite representatives from Consol, DOGM, and COE, to assess the existence of and possible impacts to wetlands as a result of the subsidence. This team will then formulate a wetland mitigation plan to mitigate for the impacts on a site by site approach.*

## BURROWING OWLS:

*Please refer to CH VIII.B.4, Page 17a for a discussion on Burrowing owls*

*A burrowing owl survey will be conducted prior to full extraction mining in the 1<sup>st</sup> North IBC area by a qualified biologist. Appropriate burrowing owl survey protocols will be employed. The study will be conducted at the most suitable time of year, or between April 15 and July 15 during peak breeding season. First, the suitable habitat (in this case the prairie dog towns) will be walked to determine whether or not the burrows are active. 'Active' means if they were used by prairie dogs, owls or other animals such as rabbits. Once it was ascertained that the site may be active, observation areas will be chosen that provide the best views of the burrow areas to survey for the presence of the owls.*

*This study will concentrate on the prairie dog towns located within the boundary of the 1<sup>st</sup> North IBC area. The survey will consist of site visits on four separate days. The visits will be planned for two morning and two evening surveys. The morning surveys were conducted from one hour before sunrise until two hours after (or from 6 am to 9 am), whereas the evening surveys will be conducted from two hours before sunset until one hour after (or from 6 pm to 9 pm) at an observation station far enough away from the town, but close enough to observe burrowing owls using high magnification field scopes.*

*All appropriate parameters and data will be recorded on data sheets during the field survey. These data sheets have been included in a final report that will be submitted to the State of Utah, Division of Oil, Gas & Mining.*

**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.**

*Please refer to CH III, Page 4a for a commitment to implement the revegetation plan.*

**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]**

*Please refer to CD, Emery Permit Maps for electronic .pdf of all emery maps depicting the revised permit boundary. Hard copies of maps will be provided at time of submitting clean copy revision.*

**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 PHC section will be revised with new pagination.*

**The Permittee should address the discrepancy on page 162 of the submitted Chapter XIII. In the 5th 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]**

*It was assumed in the evaluation that changes in underground water storage were negligible during the period of evaluation. As a result, the water balance equation indicates that inflow would equal outflow. The text has been modified to make this assumption more clear.*

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

*Refer to CH VI.A.7.3 for a commitment on MODFLOW.*

*At this time, MODFLOW modeling is being developed by Consol. When modeling is finalized a copy will be provided to the Utah Division of Oil Gas and Mining for review, during the second quarter of 2007.*

**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]**

*A further evaluation of the potential hydrologic impacts due to full extraction mining will be possible once the MODFLOW groundwater modeling effort is complete. The PHC provides a quantitative prediction of potential inflow to and discharge from the mine. Qualitative discussions are provided of potential impacts to groundwater levels, flow directions, etc. These potential impacts will be quantified once the groundwater modeling effort is complete.*

**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]**

*The requested information is available in Chapter VI of the approved MRP. The Federal IBC document has been revised to summarize that information and refer the reader to the sections of Chapter VI where the information is presented.*

**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]**

*Refer to approved MRP, Chapter VI, Volume 1, pages 139 thru 143 for description of Approved water rights.*

*Data search of the State of Utah, Division of Water Rights data base for relevant water rights within or adjacent to Section 22, Township 22 South, Range 6 East found all rights match the MRP listing.*

*Refer to approved MRP for Presubsidence Surveys which included the IBC area. Plate V-1 of Chapter V, Volume 2 delineates items #89, #90, #91, #92 and #93 as structures found within or adjacent the IBC area. Description these items can be found in Chapter V, Volume 2, Appendix V-3.*

*The source of water for the irrigation ditches originates from Muddy Creek. This point of diversion is over 23 miles NE of the proposed permit area, therefore it is not shown on Plate V-3. This water is covered under the water rights controlled by the Muddy Creek Irrigation Company listed within Chapter VI, Volume 1, Section VI.A.4, Page 141 of the MRP.*

*CH XIII page 8, and Plate V-3 have been updated to include this data.*

**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 R645-301525.120. [skc]**

*Section XIII.C.6. 6 of Chapter XIII has been modified to address impacts to State-appropriated water supplies in the proposed IBC area*

**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]**

*Refer to CH V, Section V.B.1, subsection UMC 817.124 for a discussion on the repair or replacement of material damage to surface lands and State appropriated water supplies*

**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]**

*Refer to CH V, Section V.B.1, subsection UMC 817.124 for a discussion on the repair or replacement of material damage to surface lands and State appropriated water supplies*

**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]**

*Refer to approved MRP, Chapter VI, Volume 1, pages 139 thru 143 for description of Approved water rights.*

*Data search of the State of Utah, Division of Water Rights data base for relevant water rights within or adjacent to Section 22, Township 22 South, Range 6 East found all rights match the MRP listing.*

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*CH XIII page 8, and Plate V-3 have been updated to include this data.*

**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]**

*As indicated on Plate VI-3 of the approved MRP, several monitoring wells are located in the vicinity of the proposed IBC. Given the broad effects of mining on groundwater levels in the permit and adjacent areas (see Plate VI-4), the current spacing of monitoring wells in the vicinity of the proposed IBC is considered adequate. In addition, Consol is planning on additional exploratory drilling in the area adjacent to the proposed IBC (see the exploration plan submitted*

October 2006). If these exploratory holes are drilled and if groundwater is encountered, Consol will consider converting some of these noles into groundwater monitoring wells.

**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]**

*No perennial or intermittent sources of surface water exist within the IBC area (see Plates V-3 and VI-1 of the approved MRP). The area is also devoid of well-defined ephemeral channels. Thus, traditional surface water monitoring is unnecessary. Monitoring of irrigation ditches will occur as outlined in Section XIII.D.2.*

**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]**

*Additional drilling in the area is approved and anticipated to take place in 2007. Information will be submitted when obtained.*

*Discussion of this information can be found within the approved MRP in Chapter V, Section V.A.4, "I-Zone Roof and Floor Characteristics", Pages 7 thru 15 and Section V.A.5, "Acid, Alkaline, or Toxic Potential", Page 16, Section V.A.6, "Pyrite, Marcasite, and Sulfur Content", Page 17 thru 19.*

**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 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 5th 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]**

*Duplicate Deficiency*

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Duplicate Deficiency

**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]**

Duplicate Deficiency

**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]**

Duplicate Deficiency

**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]**

Duplicate Deficiency

**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]**

Duplicate Deficiency