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DEPARTMENT OF NATURAL RESOURCES
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January 28, 2008

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

Subject: PHC Update and Full Extraction Pillar Splitting – 15th West, 4th East, 6th East and Zero North Panels Task ID #2885, Consolidation Coal Company, Emery Deep Mine, C/015/0015

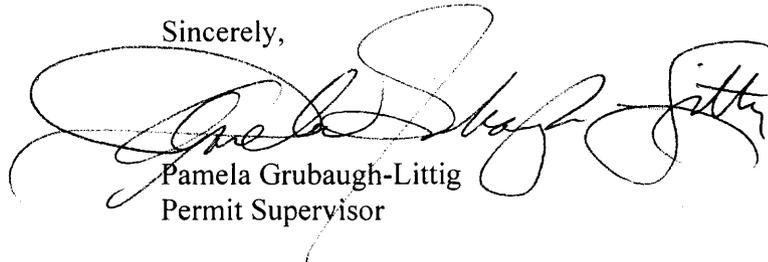
Dear Mr. Gefferth:

The Division has determined that there are deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met. The Division is returning your submittals (except the copy for the incoming file and the copy for the Price Field Office.) Please resubmit the entire package with all of the deficiencies addressed.

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.

If you have any questions, please call me at (801) 538-5268 or Steve Christensen at (801) 538-5350.

Sincerely,



Pamela Grubaugh-Littig
Permit Supervisor

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Attachment
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Deficiency List
Task ID #2885
**PHC Update and Full Extraction Pillar Splitting – 15th West, 4th East, 6th East
and Zero North Panels**

The members of the review team include the following individuals:

Priscilla Burton (PB)
Steve Christensen (SC)
Wayne Western (WW)

R645-301-121.100, Verify the Emery County 907 road realignment in Section 29 on Plate I-1, and adjust property ownership lines accordingly on Plate I-1. • Appendix I-2 lists an incorrect address and telephone number for the BLM State Office (PB)

R645-301-121.200, County Road 906 should be labeled on Plate I-1. • Include all section lines on Plate I-1. • Dual boundary appears incorrect between Carter and Staley in Section 21. • Dual boundary appears incorrect between Young Investment and Emery County in Section 30. • Dual boundary appears incorrect between Consol surface in Section 30. (PB)

R645-301-525.700, The required pre-subsidence landowner notification letters to landowners and irrigation companies were not referenced and could not be found. (PB)

R645-301-121.100, County Roads must be labeled on Figure 1, App. V-5 Pre-Subsidence survey. (PB)

R645-301-624.300 and R645-301-132, Provide missing floor analysis for 1st North. • Provide missing roof analysis from 0 North. • Provide the analysis of Electrical Conductivity and Sodium Adsorption Ratio for roof and floor samples from 1st North and 0 North. • Request all subsequent letters from the laboratory be on company letterhead to document the qualifications of the laboratory, in accordance with R645-301-132. (PB)

R645-301-525, -724, The Permittee needs to modify Figure 1 in Appendix V-5. The legend of Figure 1 depicts surveyed culverts as a solid red line. There are several solid red lines depicted on Figure 1 that do not correspond to surveyed culverts. Field investigations conducted by Division staff had not identified culverts in the locations depicted on the map by a solid red line. Upon further review and phone conversations with Consol representatives, it was determined that the solid red lines depicted on Figure 1 of Appendix V-5 are property boundaries. The Permittee should modify Figure 1 so as the property boundaries and culverts are easily distinguished from one another. (SC)

R645-301-728:

• The Permittee must provide more discussion/clarification as to the Ferron Sandstone's ability to recover to pre-mining levels. The previous technical analysis of this amendment by the Division (Task ID # 2821, November 30th, 2007) requested a written narrative (based upon the

data) as to the potential for further impacts to all three of the Ferron Sandstone layers, estimates for their recovery to pre-mining conditions, as well as the potential for altering groundwater flow directions and pressure gradients due to mining activity. The recently submitted PHC information focused almost entirely on the potential effects to the upper Ferron Sandstone layer only. The Division recognizes that the most pronounced ground water impacts to the Ferron Sandstone occur within the upper layer due to its proximity to the mined coal seam. However, the data presented in the application clearly shows that significant declines have occurred in all three layers of the Ferron Sandstone. Figure VI-7 of the application shows that water levels within the lower Ferron Sandstone have declined approximately 170 feet at well R1, declined 40 feet at the Kemmerer Well and declined 70 feet at Well H (the latter two wells located outside the permit area). The middle Ferron Sandstone has also undergone significant declines in water level. Figure VI-6 of the application demonstrates declines of approximately 200 feet at Well I, 100 feet at Well AA and approximately 500 feet at Well R2. Discussion of the middle and lower layers of the Ferron Sandstone and the potential for their recovery to pre-mining levels should be more thoroughly addressed by the Permittee. In most instances cited above, the water levels have remained fairly stable since their declines, however they have not demonstrated any increase in water level either. Given the Permittee's position that the middle and lower Ferron layers should not be significantly affected by mining, the aforementioned declines in water level and their lack of recovery should be more thoroughly examined. As with all three layers of the Ferron Sandstone, the Permittee should provide a reference and/or citation to information that demonstrates what the pre-mining ground water levels were prior to mining activity. (SC)

- The Permittee should discuss the potential impacts to ground water flow direction. Page VI-21A of the application states, "Groundwater flow directions will gradually return to approximate pre-mining conditions following the cessation of pumping". Page VI-6 of the application states, "groundwater moves generally up dip and in a southeast direction through the permit area". Is this still the case? How has the ground water flow direction been affected by mining activity? The Permittee should provide a more through discussion as to the extent that the cone of depression (produced within the permit area as a result of mine dewatering efforts) has influenced local ground water flow direction within the Ferron Sandstone. In addition, there should be some discussion as to the potential for groundwater flow directions to return to pre-mining conditions. (SC)

- The Permittee should expand the discussion as to whether artesian conditions are still present in the Ferron Sandstone within the permit and adjacent area. Page VI-6 states, "Throughout most of the region, groundwater in the Ferron Sandstone west of the mine has historically been under sufficient artesian pressure to flow at the ground surface." Has mining activity caused a depressurization in the Ferron Sandstone? Discussions with Town of Emery representatives have indicated that Wells #1 and #2 have not exhibited artesian pressure for decades. In addition, the Bryant and Lewis wells have both been affected by mining activity (See page VI-9 of the application) and no longer flow at the land surface. Is mining activity causing pressure gradients to change within the Ferron Sandstone and if so, to what lateral extent and what are the prospects that the pressure will return to pre-mining levels? (SC)

R645-301-731.210, -220:

- The Permittee should provide a discussion and table that clearly identifies all surface and groundwater-monitoring sites. On page V-25 of the application, the Permittee states, "Groundwater monitoring is conducted in the permit and adjacent areas according to the water monitoring plans presented in Table VI-17." The same language is found on page VI-26 in reference to surface water monitoring sites. Table VI-17 should be revised or a separate table generated that clearly identifies individual groundwater and surface water sites slated for monitoring and their respective sampling frequencies and protocols. (SC)
- The Permittee should identify/discuss the groundwater monitoring to be employed at the Emery Town Wells (#1 and #2). The discussion should identify what information will be obtained from each well, as it's the understanding of the Division that there are various physical limitations to data collection on one or both of the wells. (SC)
- The Permittee should add Emery Town wells #1 and #2 to the relevant text and tables that outline the groundwater-monitoring program. (SC)
- The Permittee should provide a commitment that semi-annual reports will be provided to the Division that update and document the drawdown of the Ferron aquifer relative to the Emery Town wells. (SC)

R645-301-731, The Permittee must review the surface drainage control maps (Plate VI-10 through Plate VI-10D) to insure their accuracy. Omissions were discovered during a concurrent permitting action. Plate VI-10D depicts the surface drainage controls employed at the 4th East Portal portion of the mining facility. Plate VI-10D does not depict two culverts utilized in controlling the surface drainage in that area (a 18" culvert at the north-east entrance road and a 12" culvert depicted between the excavation stockpile and supply yard). (SC)

R645-301-525.700, The Permittee must mail a notification the water conservancy district and the owners and occupants of surface properties and structures above the underground workings at least six months before mining. (WW)