



Public Service Commission

State of North Dakota

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September 13, 2016

Jay M. Volk, Ph. D
Environmental Manager
BNI Coal, Ltd.
2360 35th Avenue SW
Center, ND 58530-9499

Dear Mr. Volk:

The Reclamation Division has conducted a technical review of BNI Coal's application of Revision No. 39 to Permit BNCR-9702 at the Center Mine. The following items must be satisfactorily addressed before the Reclamation Division will recommend Commission action on this revision application. Please note that follow-up items are referenced according to the original item number in our June 28, 2016 completeness review letter.

Section 1.12 Other Licenses and Permits

1. In Section 1.12, please review and update the ATF-FEL License # 3-ND-057-20-6H-00101 held by Ronald Boyko, Specialized Blasting Services, Inc., that expired on August 1, 2016. (ZAB)

Appendix 1-7 Revision Summary with List of Changes & Approval Documents

2. The Revision No. 39 Revision Summary and List of Changes in Appendix 1-7 includes three colors of text for the one completeness response submitted by BNI. Some changes in the summary were marked as CR1 while some were not and some of the original revision summary paragraph was deleted instead of struck through. Please indicate changes consistently for all the completeness 1 responses with **one** underlined color and mark each with CR1 so these changes are not confused with changes made with your technical review responses. Also, please remember that it is good practice to strike through the text you wish to remove instead. While these standard practices are probably not required, they are mutually beneficial in that they allow us to quickly identify and review changes to the permit which expedites the revision review process. (ZAB)

Plate 3.4-3 Post-Mine Watersheds

3. Please revise the mining disturbance boundary in the S½ of Section 29 on Plate 3.4-3 (Post-Mine Watersheds) for Revision No. 39 to correspond with the expanded mining disturbance boundary depicted on Plates 3.1-1 (Pre-Mining Topographic Contours), 3.1-2 (Pre-Mining Slope Analysis),

4.10-1 (Post-Mining Topographic Contours) and 4.10-2 (Post-Mining Slope Analysis) revised with Revision No. 39. (WTG)

Section 4.1 Mining Operations and Waste Disposal

4. The Section 4.1 Minnkota Inert Waste Disposal Permit subheading link on the BNCR-9702 Volume X home page and the subheading link reference on page 4.1-3 may not be intuitively obvious to some readers. As required by NDAC 69-05.2-05-02(1), we request that BNI rearrange the documents as Appendix 4.1-1 and revise their reference as Appendix 4.1-1 on the bottom of page 4.1-3 of Section 4.1 (Mining Operations and Waste Disposal). Please also update the Revision No. 39 Revision Summary and List of Changes in Appendix 1-7 to indicate the addition of Appendix 4.1-1 and please also add Appendix 4.1-1 to the permit's Table of Contents. (WTG)
5. Please update the Minnkota Inert Waste Disposal Permit in Section 4.1 (requested to be rearranged to as Appendix 4.1-1) to include Permit Number 0205 issued by the Department of Health on August 1, 2016 for Minnkota's closed bottom ash inert waste landfill. (WTG)
6. Follow-up to item No. 11: Please include a brief description in the Waste Disposal narrative beginning on page 4.1-3 indicating that Minnkota will continue to have solid waste facility closure and post-closure obligations for the reclaimed landfill site. Please also correct the typographical errors in the spelling for Minnkota that appear in two places in added revised narrative on page 4.1-3. (RLK)

Plate 4.1-1 Pit Layout and Facilities Map

7. Please revise the pit layout and the highwall backslope area in the S½ of Section 29 on Plate 4.1-1 (Pit Layout and Facilities Map) for Revision No. 39 to correspond with the expanded mining disturbance boundary depicted on Plates 3.1-1 (Pre-Mining Topographic Contours), 3.1-2 (Pre-Mining Slope Analysis), 4.10-1 (Post-Mining Topographic Contours) and 4.10-2 (Post-Mining Slope Analysis) revised with Revision No. 39. (WTG/RLK)
8. Follow-up to item No. 12: Please update Plate 4.1-1 (Pit Layout and Facilities Map) to show stockpile locations for the topsoil and subsoil that will be salvaged from disturbed reclaimed land in Section 3. Appendix 4.6-5 (Minnkota Section 3 Ash Disposal Cell Reclamation - Surface Water Management Plan) appears to show SPGM piles on areas where topographic changes are proposed that will require re-handling of this material in conflict with NDAC 69-05.2-15. It appears that the buffer zone along the northwest side of the pit may be a good place to store subsoil salvaged from the land that is to be re-disturbed. (GAW)

Appendix 4.6-5 Minnkota Section 3 Ash Disposal Cell Reclamation - Surface Water Management Plan

9. Follow-up to item No. 12: Please provide the approximate volume of the sumps planned as part of the surface water management plan for the Section 3 Ash Disposal Cell area. Please also provide the acreage for the drainage areas that will drain to the sumps proposed in the surface water management plan described in Appendix 4.6-5. In addition, the narrative should mention that the sumps will be large enough to be effective, and that they will be maintained for two years after final reclamation or until perennial vegetation is established. Soil and any spoil that will be used to reclaim these sumps should be stored adjacent to the sumps. Please also add a notation to the narrative and map of Appendix 4.6-5 to indicate it was added/revised with Revision No. 39. (RLK/GAW)

10. Please revise Appendix 4.6-5 as necessary to clarify the use of topsoil stockpiles to control surface water runoff from reclaimed land redisturbed to obtain spoil for use as backfill to close Minnkota's bond released bottom ash inert waste landfill. Stabilized vegetated topsoil berms may be acceptable sediment control measures for some long-term surface water management applications, but temporary topsoil stockpiles are not considered acceptable sediment control measures. (WTG)

Section 4.9 Reclamation Schedule

11. Please revise the Section 4.9 narrative to remove the listing and descriptions of Variance Area numbers 6 and 9 in Sections 4, 5, and 33 on pages 4.9-4 and 4.9-5 that were reclaimed in 2015 (grade approval areas 2015_06 and 2015_09) or are being reclaimed in 2016 (grade approval area 2016_03). (WTG)

Plate 4.9-1 Reclamation Variance Areas

12. Please revise Plate 4.9-1 to remove Variance Area numbers 6 and 9 in Sections 4, 5, and 33 that were reclaimed in 2015 (grade approval areas 2015_06 and 2015_09) or are being reclaimed in 2016 (grade approval area 2016_03). (WTG)

Appendix 4.9-1 Reclamation Schedule - Historic Archives

13. The changes requested for Variance Area numbers 6, 8, and 9 in Section 4.9 (Reclamation Schedule narrative) and on Plate 4.9-1 (Reclamation Variance Areas) with Revision No. 39 will require that Section 4.9 and Plate 4.9-1 in approved Revision No. 38 be moved to Appendix 4.9-1 with Revision No. 39. We suggest that BNI organize successive Section 4.9 and Plate 4.9-1 revision additions to Appendix 4.9-1 with bookmarks by revision number for Section 4.9 and Plate 4.9-1. (WTG)

Section 4.10 Backfilling and Regrading

14. It does not appear that Appendix 4.6-5 (Minnkota Section 3 Ash Disposal Cell Reclamation - Surface Water Management Plan) is referenced in any narrative sections of the Revision No. 39 application. As required by NDAC 69-05.2-05-02(1), please revise the narrative in the first paragraph of item no. 3 in subsection 4.10.1 (Design Methods) of Section 4.10 to inform the reader that Appendix 4.6-5 provides the surface water management plan for redisturbing reclaimed land to obtain spoil for use as backfill to close Minnkota's bond released bottom ash inert waste landfill. Please also correct the typographical error referring to "soil lifts" rather than "spoil lifts" in the second paragraph of item no. 3 in subsection 4.10.1. (WTG)
15. Item no. 4 in subsection 4.10.1 (Design Methods) of Section 4.10 is being revised to clarify that mining will cease in Section 29 due to high cover near the center of Section 29. This statement is somewhat misleading since only about 4 pits (600 feet) are planned for mining along the southern edge of Section 29 and coal removal does not even approach the center of Section 29. Please clarify this statement. In addition, Revision No. 39 proposes an additional 325 feet of disturbance north of the final pit in Section 29. This is in addition to the 200 feet of highwall backfilling that was approved with Revision No. 38. This additional disturbance north of the final pit as proposed with Revision No. 39 would affect an additional 50 acres and is not clearly described in the revision summary, nor is it shown on the Pit Layout and Facilities Map. This additional disturbance as proposed seems contrary to NDAC 69-05.2-13-05 that requires mining companies to minimize disturbance on lands where coal is not removed. Please revise the Post-Mining

Topographic Contours Map to the extent possible to minimize disturbance in the S½ of Section 29 on lands where coal will not be removed. (GAW)

16. Please provide more details regarding the topographic changes in Sections 29, 32 and 33 as required by NDAC 69-05.2-09-11(3) which states that “*Post-mining topographic and area slope maps drawn to the specifications in subsection 3 of section 69-05.2-08-02, and a plan for backfilling, soil stabilization, compacting, and grading. The plan must provide cross sections and volumetric calculations or other information to show the final topography can be achieved.*” Please provide the necessary material balance calculations to demonstrate that the proposed postmine topography is achievable. (FSE/GAW)

Appendix 4.10-1 Minnkota Power Section 3 Ash Disposal Cell Reclamation Plan

17. It appears the term *regraded soil* should be changed to *regraded spoil* in item No. 6 on page 4.10-1-2 in Appendix 4.10-1. Please revise as appropriate. (ZAB)
18. Please provide more information in Appendix 4.10-1, Minnkota Power Ash Disposal Cell Reclamation Plan and Cross Sections, regarding estimated volumes (e.g., volumetrics calculations) to be taken from the borrow areas to the ash pit. (FSE)

Appendix 4.11-1 Minnkota Section 3 Ash Disposal Cell Reclamation - Soils Handling Plan

19. As required by NDAC 69-05.2-05-02(1), please revise the second paragraph of the Appendix 4.11-1 narrative on pages 4.11-1-1 and 4.11-1-2 to describe ash landfill closure separately from the landfill buffer area and redisturbed reclaimed land reclamation. In the separate ash landfill closure paragraph, please specify the topsoil and subsoil respread depths and the landfill post-closure land use proposed by Minnkota Power Cooperative. (WTG/RLK)
20. As required by NDAC 69-05.2-05-02(1), please update the third paragraph of the Appendix 4.11-1 narrative on page 4.11-1-2 to address the subsoil substitution plan’s current status and any specific planned use of stockpiled substitute material to close the ash landfill. (WTG/RLK)

Section 4.12.3 Reclamation Information

21. Revision No. 39 updates Section 4.12-3 to include general shelterbelt design plans for three replacement plantings that are to be located in the SW¼ of Section 29. The design plans show two 4-row field windbreaks and one 5-row planting with a total acreage of about 6.4 acres. The two four row plantings are listed as being 2460 feet and 1738 feet long but only a portion of these rows are to be disturbed by mining. The tree rows will need to be planted very close together to achieve the acreage associated with each row but the permit states that these trees will be planted according to NRCS recommendations which specifies a wider row spacing. Please review and revise as necessary to ensure the information provided is accurate and that the surface owners want the pre-mine single row field windbreaks replaced with multiple row plantings. Perhaps these field windbreaks should be limited to three-row plantings if the pre-mine acreage is going to be reclaimed. (GAW)

Plate 4.12-1 Post Mining Land Use

22. Please retain the **industrial** post mine land use for the Section 3 ash cell on Plate 4.12-1 because this area was bond released as industrial and the narrative and acreage tables in Sections 4.12.1 and 4.12.2 address it as such. The ash cell is no longer under our jurisdiction and Minnkota may

have the area rezoned and returned to cropland if they choose. In addition, Section G of Permit No. 0205 issued by the Department of Health on August 1, 2016 currently requires that the former ash pit be established with perennial native grasses. (ZAB/GAW)

23. BNI is planning to reclaim two small tracts of pre-mine native grassland in the SE¼ of Section 29 in the same locations as they existed prior to mining. Consideration should be given to consolidating the acreage of these two tracts in a single larger and more manageable tract. (GAW)

Enclosed is a copy of the State Water Commission's August 5, 2016 advisory committee review response requested for the Revision No. 39 application. The agency's review did not result in any technical review items.

Please contact this office if you have any questions.

Sincerely,



James R. Deutsch
Director
Reclamation Division

Enclosure

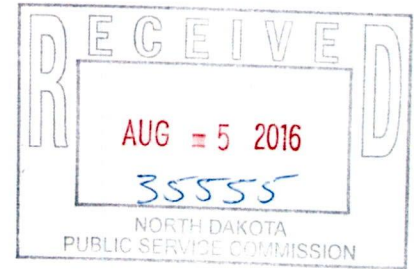
cc: Karene Hall
Jon Rudnick
Jodey Houn
Oliver County Auditor



State of North Dakota

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WATER APPROPRIATION DIVISION
(701)328-2754

August 5, 2016

Mr. James R. Deutsch, Director
Reclamation Division
Public Service Commission (via INSIDE MAIL)
600 East Boulevard Avenue, Dept. 408
Bismarck, ND 58505

Dear Mr. Deutsch:

In July 27, 2016 letter, you requested a review of proposed Revision Number 39 to BNI Coal Ltd.'s Surface Coal Mining Permit BNCR-9702 by the State Engineer. Review of mine permits with regard to groundwater and wells is made by a hydrologist in the Water Appropriations Division of the State Engineer's Office. Revision 39 involves changes to post-mine topography, surface water management, reclamation plans, etc. related to closure an ash disposal cell, along with changes to post-mine topography and reclamation in preparation for a final pit location. The proposals will not affect groundwater and wells, and therefore I have no further comment.

Sincerely,

Jennifer Weier
Hydrologist Manager

JW:/1687.01