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A BNI ENERGY COMPANY

December 29, 2022

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NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Ms. Zanna Brinkman, Director
Reclamation Division, NDPSC
Department 408
600 East Boulevard Avenue
Bismarck, ND 58505-0480

Dear Ms. Brinkman,

This submittal contains a response to your Technical Review 4 letter to us dated December 12, 2022. In this letter you listed technical deficiencies that must be addressed before the Revision 8 application to BNCR-1101 can be approved. Below is a listing of the deficiency followed by our response:

General

1. Follow-up to Item No. 1: Final bond release No. 5 to BNCR-9401 is not depicted in Plate 4.1-1 (Pit Layout and Facilities Map). Please update Plate 4.1-1 to include this bond release. (JWE)

Bond release No. 5 area is shown on Plate 4.1-1.

2. Please update the worst-case bond estimate using the 2022 variable cost update or submit another revision by March 1, 2023 to include the updated variable costs. (JWE)

Appendix 4.14-1, worst case bond calculation has been updated using the November 1, 2022 costs.

Section 3.3 – Ground Water

3. Follow-up to Item No. 2: Please edit the new narrative in the first sentence of the fourth paragraph on page 1-10 in Section 3.3 (Ground Water) to define if there “will be” or “could be” mining disturbance. Also, correct the typo in the second sentence of the narrative; “wells” should be singular, and the fourth sentence should begin with “thirdly” since it is the third well discussed in the narrative. (JAR)

All narrative and grammar was changed as suggested.

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Response to fifth technical review letter
BNI Coal, Ltd.
Karene Hall, Permit Coordinator

Section 3.4 – Surface Water

4. Follow-up to Item No. 3: Please clarify the second sentence in the Watershed HC-2 narrative as it is not clear how the watershed area that was lost to HC-4 impacts the Watershed HC-2 area. Also, please correct the typographical error in the last sentence of the narrative for Watershed HC-2. (JAR)

The narrative has been corrected to reflect that the area from HC-2 was lost to HC-3 not HC-4. HC-3 flows into Hagel Creek just upstream of HC-2 tributary and will not adversely impact Hagel Creek or its tributaries. The typographical error was corrected.

5. Follow-up to Item No. 5: Please update Table 3.4-2 (Potential Effects on Developed Water Resources) to incorporate all the DWRs in the C1 Addition Area that potentially could be impacted by mining activity. (JAR)

The two tracts with any associated acres (NW1/4 of Section 15 and NW1/4 of Section 23) are included already in the table. Other two water features present in Rev. 8 addition area are stock tanks fed by water wells and there is no associated acreages with them. These two features are discussed in the text and listed in Table 3.4-1 but BNI does not believe Table 3.4-2 is appropriate place to add these also.

6. Follow-up to Item No. 5: Narrative in the second paragraph on page six of Section 3.4 incorrectly implies that the Lackman pipeline livestock water delivery system pertains primarily to the SW¼ of Section 14, which is described as one of three tracts in the C1 Addition Area with developed water resources. However, only one of the five tanks associated with the Lackman pipeline system is in the SW¼ of Section 14, according to Plate 3.4-5 (Lentic Wetlands, Lotic Wetlands and DWR Locations) but the narrative in Section 3.4 states that two tanks will be replaced in the SW¼ which is confusing. Please revise to provide clarity regarding the pre-mine water supplies. (GAW)

Revised second paragraph to better explain Lackman pipeline watering system. In general 5 total stock tanks were identified and 2 of the three will planned to be returned as post mine landuse change where the other three are located is from pasture to cropland.

7. Follow-up to Item No. 5: Please revise the narrative in the second paragraph on page six of Section 3.4 (Surface Water) to clarify where the three pre-mine developed water resources are located in the Revision 8 Addition Area. (GAW)

Revised paragraph to discuss water resources in Sections 14 (Lackman and Dresser), 15 (Hoesel), and 23 (Burton and Etheleen)

8. Follow-up to Item No. 5: Narrative on page 35 of Appendix 4.12-2 (Pre- and Post-Mine Land Use Discussions) states that water is supplied to the Lee Dresser native grassland in portions of the N½ of Section 14 by a newer tank near the center of the tract, and it mentions a historic water development. Please update the Usable Pre-Mining Water Supplies narrative on page 6 of Section 3.4 (Surface Water) to characterize these developed water resources and provide appropriate replacement plans for these resources, if necessary. (GAW)

Revised second paragraph on p6 of 3.4 in include Lee Dresser stock tank discussion.

9. Follow-up to Item No. 5: After describing developed water resources within the C1 Addition Area, the last sentence of the second paragraph on page six of Section 3.4 (Surface Water) states that there are no known cases where developed water resources were used for agricultural purposes within or near the permit area. Please revise to provide clarity. (GAW)

Revised sentence to state the no water resources used for cropland irrigation.

10. Follow-up to Item No. 5: The Lackman livestock water delivery system is depicted on Plate 3.4-5 (Lentic Wetlands, Lotic Wetlands and DWR Locations) map, but this delivery system is not depicted on the C1 Addition Area map that provides a scale of 1 to 4,800. Please correct this error. (GAW)

Lackamn cattle watering system added to p8 of Plate 3.4-5.

11. Follow-up to Item No. 5: The last row in Table 3.4-1 (Pre-Mining Developed Water Resource Assessments in Area C: BNCR-1101) incorrectly indicates that the Lackman livestock water delivery system only pertains to one tank in the W½ of Section 14. Four of the five tanks associated with this system are located in the E½ of Section 14. Please revise the table to address the entire water delivery system. (GAW)

Changed legal description in table to include all the well associated with the Lackman property.

12. Follow-up to Item No. 5: Please update Table 3.4-1 (Pre-Mining Developed Water Resource Assessments in Area C: BNCR-1101) to include the developed water resources on Lee Dresser's native grassland in Section 14. (GAW)

Added stocktank associated with the Lee Dresser land to the table. More detail about the system in in the text from 3.4.

Section 3.5 – Pre-Mine Land Use

13. Please edit the plate labels for the seven larger tile maps attached to the Pre-Mine Land Use Map on Plate 3.5-1. Plate 3.5-1 indicates that the seven subsequent larger tiles of the map are labeled as Plate 3.5-1A-Plate 3.5-1G; however, all the larger tile maps are labeled as Plate 3.5-1. (MLJ)

Pages 2-8 of Plate 3.5-1 updated with A-G labels.

Section 4.1 – Operations Plan

14. Plate 4.1-1 (Pit Layout and Facilities Map) submitted does not depict the Mining Disturbance Boundary and Watersheds as described in the legend. Please revise the map accordingly to include the Mining Disturbance Boundary and Watersheds. (JWE)

The layers were frozen and the drawing and are now turned on.

Section 4.6 – Surface Water Management Plan

15. The Pond Design Information Sheet in Appendix 4.6-43 (Design Details – Sedimentation Pond P-13-9) lists the emergency spillway flow depth as 1.09 feet with 1.41 feet of freeboard. However, the HydroCAD calculations lists the design depth of the emergency spillway as 3.5 feet. Please revise the Pond Design Information Sheet and/or the HydroCAD calculations appropriately. (JWE)

The HydroCAD model and Pond Information Sheet are now consistent. There was an error in node 2P which had the outlet elevation of the pond at 2026.5 instead of 2027.5. The change brought the flow depth to 1.33 feet and freeboard to 1.17 feet.

16. Please revise the Pond Design Information Sheets for the ponds proposed with Revision No. 8 to list the top of the embankment elevation as “After Settlement” instead of “Before Settlement” to indicate that the embankments will be constructed to account for potential settlement. As stated in NDAC 69-05.2-16-09(11), “The constructed height of the dam must be increased a minimum of five percent over the design height to allow for settlement, unless it has been demonstrated to the commission that the material used and the design will ensure against settlement.” (JWE)

Ponds associated with Revision 8 have top of embankment shown as After Settlement. Ponds included are P-11-1, P-11-2, P-11-3, P-12-3, P-13-8, P-13-9, P-13-10, and P-14-1.

17. The Pond Design Information Sheet in Appendix 4.6-42 (Design Details – Sedimentation Pond P-13-8) lists the emergency spillway flow depth as 1.15 feet with 1.05 feet of freeboard. However, the HydroCAD calculations lists the design depth of the emergency spillway as 1.8 feet. Please revise the Pond Design Information Sheet and/or the HydroCAD calculations appropriately. (JWE)

The design depth was changed to reflect 2.2 feet in the model. The results of HydroCAD were similar with a flow depth of 1.13 feet and 1.07 feet of freeboard. The pond information sheet was then updated to be consistent.

18. Follow-up to Item No. 17: According to the culvert information sheet in Appendix 4.6-42 (Design Details – Sedimentation Pond P-13-8), the headwater elevation for Culvert ID 34 is 2,037 feet but the top of the county road appears to be at an elevation of approximately 2,035 feet. Please review the elevation of the county road and culvert design to ensure that water will not overtop the county road during the design storm event. (JWE)

Elevations of the county road were reviewed and survey of the road shows an elevation of 2035.9 feet, culvert information sheet and designs were updated using the road elevation of 2035.9 feet ensuring road will not be overtopped

19. Follow-up to Item No. 17: Appendix 4.5-2 (Culvert Information Sheets) that was submitted on November 7, 2022 as an addendum to BNI’s October 28, 2022 response no longer includes labels for numbered culverts within the bookmarks. Please revise Appendix 4.5-2 (Culvert Information Sheets) to include numbered culverts within the bookmarks. (BSM)

PDF was saved with bookmarks included.

20. Follow-up to Item No. 22: Plate 4.6-41A in Appendix 4.6-41 (Design Details – Sedimentation Pond P-11-1) does not include the C to C' label above the emergency spillway cross section. Please revise the cross section with the C to C' labels. (JWE)

The label has been added to the Plate.

21. Follow-up to Item No. 24: The culvert information sheet for Culvert ID 30 in Appendix 4.6-41 (Design Details – Sedimentation Pond P-11-1) states the headwater elevation is 2,021 feet, but it appears that the county road is at an elevation of 2,020 feet where the culvert crosses the road. Please review the county road elevation where the culvert will be placed to ensure that water will not overtop the road. (JWE)

Elevations of the county road were reviewed and survey of the road shows an elevation of 2021.4 feet no changes were made, as the design used a lower elevation than what is observed on the road.

22. Follow-up to Item No. 27: Plate 4.6-45A in Appendix 4.6-45 (Design Details – Sediment Pond P-14-1) depicts the culvert size crossing 37th Ave SW as 54 inches, but the HydroCAD calculations use a 48 inch round culvert on pages 45 and 46. Furthermore, the culvert information sheet also lists the culvert size as 48 inches. Please revise Appendix 4.6-45 (Design Details – Sediment Pond P-14-1) so the culvert information and Plate 4.6-45A are consistent. (BSM)

Revised Plate for P-14-1 where the culvert was identified as 54" and changed to 48" to be consistent with the design parameters.

23. Follow-up to Item No. 28: The Pond Design Information Sheet in Appendix 4.6-50 (Design Details – Sedimentation Pond P-12-3) lists the emergency spillway flow depth during peak flow as 1.88 feet with 1.02 feet of freeboard. However, the HydroCAD calculations lists the design depth of the emergency spillway as 1.8 feet. Please revise the Pond Design Information Sheet and/or the HydroCAD calculations appropriately. (JWE)

The design depth of the emergency spillway has been update to 2.9 feet in the HydroCAD models. The peak flow depth and freeboard remained the same at 1.88 feet and 1.02 feet.

24. Follow-up to Item No. 28: Plate 4.6-50A in Appendix 4.6-50 (Design Details – Sediment Pond P-12-3) depicts High Water Elevation as 2,002.4 feet but it is displayed above contour elevation of 2,005 feet. Please revise Plate 4.6-50A in Appendix 4.6-50 (Design Details – Sediment Pond P-12-3) to accurately depict the high-water elevation. (BSM)

Plate 4.6-50A has been updated to show the high water mark at 2002.4 feet.

25. Follow-up to Item No. 28: Please review your response and revise accordingly. It appears that your response was for Culvert ID 31 and not Culvert ID 33 in Appendix 4.6-41 (Design Details – Sedimentation Pond P-12-3). (JWE)

Looking back at our response to Item No. 28 in Tech Review 4 it appears our response was in regards to Culvert 31 for Appendix 4.6-45 Design details sediment pond P 14-1.

For Item No. 28 in Tech Review 4 concerning Culvert 33 for appendix 4.6-50 design details for sediment pond P-12-3 Culvert 33 was designed and included in appendix 4.5-50, the pond narrative updated and plate 4.5-1 Transportation plan map were updated to include Culvert 33.

26. Follow-up to Item No. 28: The culvert information sheet for Culvert ID 33 in Appendix 4.6-50 (Design Details – Sedimentation Pond P-12-3) has a headwater elevation of 2,018 feet, but it appears that the county road elevation at this location is approximately 2,015 feet. Please review/revise the culvert design to ensure that water will not overtop the road. Furthermore, the pre-mine contours depicted in Plate 4.6-1 (Surface Water Management Plan) depict the county road at an elevation of approximately 2,015 feet, but Plate 4.5-1 (Transportation Plan) depicts different pre-mine contours at this location. Please review the pre-mine contours in Plate 4.6-1 and Plate 4.5-1 to ensure they are consistent and accurate. (JWE)

Elevations of the county road were reviewed and survey of the road shows an elevation of 2017.7 feet. Culvert information sheet and designs were updated using the road elevation of 2017.7 feet to ensuring road will not be overtopped. Pre mine topo for the Plate 4.5-1 transportation plan was updated to match pre-mine contours in plate 4.6-1

27. Follow-up to Item No. 30: Appendix 4.6-50 (Design Details – Sedimentation Pond P-12-3), page 7 of the HydroCAD calculations (page 11 of the pdf), incorrectly lists **Watershed P-13-8 Tc** of 17.3 minutes for Subcatchment 6S: P-12-3 Watershed. Please update the HydroCAD calculations using the correct Tc for the Pond P-12-3 Watershed in Appendix 4.6-50 (Design Details – Sedimentation Pond P-12-3). (BSM)

Tc for P-12-3 has been corrected in the HydroCAD model for both the containment design and emergency spillway design.

Section 4.11 – SPGM Removal and Replacement

28. Please update Plate 4.11-1 (Propose SPGM Respread Depths – Method A) to include the latest drill hole locations and corresponding proposed SPGM respread depths, if necessary, in Section 14. (MLJ)

Spoil/OB samples were drilled in 2021 over the federal coal lease in section 14, these holes were added and predicted SPGM respread depths were updated.

29. The “unleased federal coal tracts” delineations on Plate 4.11-1 appeared to have changed according to Plate 4-1.1 (Pit Layout and Facilities Map). Please address this discrepancy. (MLJ)

Updated one tract that was labeled unleased federal coal tracts to Leased federal coal tracts in Plate 4.11-1.

Section 4.12 – Revegetation, Post-Mining Land Use and Reclamation Success Narrative

30. Please update the Lee Dresser pre- and post-mine narrative on page 35 of Appendix 4.12-2 (Pre- and Post-Mine Land Use Discussions) to describe how the developed water resources will be replaced on the native grassland in the N½ of Section 14. (GAW)

Updated narrative in Appendix 4.12-2 describing source of water for stock tanks and BNI commitment to replace water source through some means.

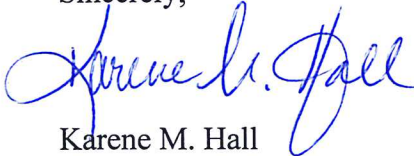
Section 4.13 – Fish and Wildlife Resource Protection, Enhancement and Monitoring Plan

31. Please revise Section 4.13 (Fish and Wildlife Resource Protection, Enhancement, and Monitoring Plan) such that the information is current and includes the Revision 8 Addition Area. Revise the Threatened and Endangered Species subsection in the Fish and Wildlife Protection and Enhancement Plan to include a current list of threatened, endangered and proposed species that could potentially occur in the permit area according to the USFWS IPaC site. Please also indicate if IPaC identifies any designated critical habitat for threatened and endangered species in the permit area. The proximity of designated critical habitat should be discussed in relation to the permit area. The fish and wildlife protection and enhancement plan should include language about the likely hood of any of IPaC identified species being present in the permit area. Please provide a species-specific protection and enhancement plan (PEP) that includes measures that will be taken to avoid take of any species that could potentially be found in the permit area. For example, if IPaC indicates that the Northern Long-Eared Bat could potentially exist in the permit area, the protection and enhancement plan should specifically state that trees will not be removed during time periods when the species might be adversely affected. NDAC 69-05.2-10-03(6)(d) requires the application affirmatively demonstrate that operations will not affect the continued existence of endangered or threatened species or result in adverse modification of their critical habitats. (GAW)

Updated pages 1-5 of the Threatened and Endangered species section of 4.13 to discuss BNI's use of IPAC, the most current results of the IPAC search. Also added to discussion and to the permit Appendix 4.13-1 which is the last 2 BNI biennial wildlife monitoring plans which have surveys and discussions related to multiple potential T&E species that may be present based at Center mine permit area based on IPAC search. The most recent IPAC search and official letter from USFWS is also discussed and included as Appendix 4.13-2.

Thank you for your consideration of this matter. If you have any questions regarding this submittal, please contact me at the Center office.

Sincerely,



Karene M. Hall
Permit Coordinator