



Public Service Commission

State of North Dakota

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August 4, 2017

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

Dear Mr. Volk:

The Reclamation Division has conducted a completeness review of the application for Revision No. 40 to Permit BNCR-9702 at the Center Mine. The following items must be adequately addressed before the application can be deemed complete and approval granted to begin publication of the permit revision newspaper notice. Some of the items may be more technical in nature; however, they will provide additional clarity before the revision application is sent to the Advisory Committee and other interested parties.

Revision No. 39 Application (SFN 10562)

1. As required by NDAC 69-05.2-11-02(4)(a), please revise the revision description for Revision No. 40 on page 1 of the revision application form, or use an attachment if necessary, to describe the postmine topography modifications proposed within the current permit boundary similar to what follows: *“Revision No. 40 also proposes to modify the postmine topography within the current permit boundary in Section 21, the W¹/₂ of Section 28, the S¹/₂ of Section 29, the N¹/₂ of Section 32 and the NW¹/₄ of Section 33 to reclaim final pits in Sections 28 and 29. The proposed postmine topography changes require redisturbing reclaimed land in Section 21 and backsloping about 215 acres in the S¹/₂ of Section 29 north of the final pit. A secondary postmine topography design for Sections 20 and 21 is also proposed to reclaim a final pit along the west section line of Section 21 if a federal coal lease for the N¹/₂ and the SW¹/₄ of Section 20 is not acquired.”* (WTG)

Table of Contents

2. Appendix 1-1 (Revision Summary and List of Changes) indicates that the Table of Contents was revised with Revision No. 40 but no changes are indicated with strikethrough or underscore. Please indicate any revisions to the Table of Contents. (WTG)

Appendix 1-1 - Revision Summary and List of Changes

3. It is not clear in the revision summary or other parts of the permit that the mining plan shown in Section 20 would be contingent upon obtaining the necessary federal coal lease. The permit should somewhere indicate that BNI Coal has submitted a lease application and is working towards completing the process in the next year or so. The revision summary and the mining operation narrative in Section 4.1 should explain that the pits shown on Plate 4.1-1 are contingent on obtaining the federal lease. The other alternative would be to remove the mining pits from the federal coal tracts until the lease is obtained. (RLK)
4. The list of changes in Appendix 1-1 should be updated to identify additional sections changed with this revision to include: Plate 2-1 (Extended Mine Plan), Plate 3.4-1A (Surface Water Sampling Sites Map), Section 4.14 (Reclamation Cost Estimate for Bonding Purposes) and any others as appropriate. (RLK)
5. The list of changes in Appendix 1-1 indicates that Section 4.7 was updated as part of Revision No. 40 but there does not appear to be any changes in the permit copy we received. Please ensure the Revision No. 40 application contains the intended changes made to this section of the permit. (RLK)
6. Please revise Appendix 1-1 to include a discussion about all of the mining and reclamation changes being proposed with this revision as required by NDAC 69-05.2-11-02(4). This revision proposes to authorize extending high wall-back sloping to the entire S1/2 of Section 29, which is approximately 1700 feet beyond that currently approved and entails disturbance to an additional 190 acres of land where coal removal is not planned. (GAW/ZAB)

Appendix 1.5-1 - Notice of Publication

7. As required by NDAC 69-05.2-05-02(1) and 69-05.2-10-01(1), please revise the first paragraph of the public notice as follows. *Please take notice that BNI Coal Ltd., 2360 35th Avenue SW, Center, North Dakota 58530-9499 has submitted an application to the North Dakota Public Service Commission for Permit Revision No. 40 to BNCR-9702, approved on August 2, 2000, to engage in surface coal mining and reclamation operations. ~~The area for which a permit revision is sought includes~~ The permit area is located in all or approximately 7,655 acres in parts of Sections 21, 27, 28, 29, 31, 32, 33 and 34 T142N R84W and in all or parts of Sections 3, 4, 5, 6, 7, 8, 9 and 10 T141N R84W, This area is in Oliver County, North Dakota. and is shown on the accompanying map. The permit revision will modify the permit boundary by adding Revision 40 adds 636.58 acres to the northwestern boundary of the existing permit, including the entire in Section 20, T142N, R84W, to the existing permit area for a total of 7,655 acres, more or less. The area for which a permit is being sought and the current permit are shown on the accompanying map. Any interested persons may file petitions with the Public Service commission to designate any of these additional lands as unsuitable for mining. (ZAB/WTG/BEB)*
8. As required by NDAC 69-05.2-05-02(1) and 69-05.2-10-01(1), please revise the Revision No. 40 description by adding a second paragraph on page 1 of the newspaper notice to describe the postmine topography modifications proposed within the current permit boundary similar to what follows. Please also revise the notice map to depict the areas where postmine topography modifications are proposed. *“Revision No. 40 also proposes to modify the postmine topography*

within the current permit boundary in Section 21, the W½ of Section 28, the S½ of Section 29, the N½ of Section 32 and the NW¼ of Section 33 to reclaim final pits in Sections 28 and 29. The proposed postmine topography changes require redisturbing reclaimed land in Section 21 and backsloping about 215 acres in the S½ of Section 29 north of the final pit. A secondary postmine topography design for Sections 20 and 21 is also proposed to reclaim a final pit along the west section line of Section 21 if a federal coal lease for the N½ and the SW¼ of Section 20 is not acquired. The areas where postmine topography modifications are proposed are depicted on the accompanying map.” (WTG/GAW)

9. As required by NDAC 69-05.2-05-02(1) and 69-05.2-10-01(1), please move the statement “that any interested person may file a petition to designate any land being added to the permit with Revision No. 40 as unsuitable for mining” from paragraph one to the next paragraph regarding filing comments, objections, and requests. (WTG)
10. As required by NDAC 69-05.2-05-02(1) and 69-05.2-10-01(1), please add “Dept. 408” to the commission’s mailing address for filing comments, objections, requests, and petitions of the notice’s second paragraph on page 1. (WTG)
11. As required by NDAC 69-05.2-10-01(1) and NDCC 38-14.1-18(1), please add the surface and coal owners for Section 21 and the S½ of Section 29 to the newspaper notice because postmine topography modifications proposed with Revision No. 40 may affect land or may impact future coal recovery within these areas. (WTG/GAW)
12. As required by NDAC 69-05.2-10-01(1) and NDCC 38-14.1-18(1), please add a phrase to the last paragraph on page 1 of the newspaper notice specifying the surface and coal owners of land being added to the permit, as well as those that may be affected by the revised plans within the current permit boundary. (WTG)
13. As indicated by NDAC 69-05.2-10-01(1)(b)(4), addresses are not necessary in the newspaper notice for surface and coal owners of land added to the permit with Revision No. 40, or land in the current permit area that will be affected by the revision. (WTG)
14. Please clearly depict the “Exclusion Area” on the publication map. As currently depicted, it will not be visible at the publication scale. (ZAB/WTG)

Appendix 1.5-2 - Landowner Notification Letters

15. The Landowner Notification Map for the Section 20 Addition shows the area of the 2.2-acre exclusion within the associated disturbance boundary. If the Landowner Notification Map changes in response to the next item, then the 2.2-acre exclusion area should be clearly shown on this map and since this tract will not be permitted and no disturbances of any kind will be allowed within the tract. (BEB)
16. Please include Landowner Notification Letters in Section 1.5-2 of the permit that show compliance with NDCC 38-18-06(1), for the disturbance planned in the S1/2 of Section 29 of the permit. It does not appear that the surface owners of this property were given notice of the additional disturbance planned on this tract with Revision No. 40. (GAW/BEB/ZAB)

Section 1.8 - Metes and Bounds Description of Permit Area

17. Please review and revise the metes and bounds description acres for Tract 20 added with Revision No. 40 as necessary on page 1-13 because the Tract 20 acres (119.02) is an obvious copy/paste error. (WTG/JSP/ZAB)

Section 3.2 - Geology

18. Plate 3.2-1 provides cross-sections A-A', B-B', and C-C' in the permit area; however, the labeling on the cross-sections is not legible at any scale. Please change the font style or line weight on the labeling beneath each of the drill holes so that the information provided on the cross-sections can be interpreted. (BEB)
19. In Appendix 3.2-1, the geophysical logs for drill holes 13-B001 through 13-B004 which are all located within the SE1/4 of Section 20 in the addition area do not contain the density/Gamma-Gamma logs required by NDAC 69-05.2-08-05(2)(b). Gamma Ray, Resistance and Caliper measurements are all provided on the log sheets, but not density. Please research the logging record for these four holes and provide the required information. However, if that information is unavailable, as it appears may be the case, you will need to provide reasonable justification in the permit for the lack of density measurements on the geophysical logs for those holes and provide a reference to the lithologic logs and coal core analyses demonstrating the existence of a minable coal reserve in that quarter-section. (BEB)
20. We have noted that the lithologic logs for the addition area have been placed in Appendix 3.2-1, Geophysical Logs, and they should be placed in Appendix 3.2-1A with the rest of the lithologic logs for the permit area. Additionally, the new drilling log data sheets for holes 13-B001, 13-B002, 13-B003, and 13-B004 (from the SE1/4 of Section 20) are faded and washed-out to the point that the information provided on the log sheets is illegible. Please re-scan the original field data sheets and place a legible copy in the lithologic log section of the permit, Appendix 3.2-1A. (BEB)
21. Appendix 3.3-2 is a listing of the chemical and physical analyses of overburden within the permit area and the spreadsheet located at the top of this section titled "Listing of Boreholes with Overburden Analyses" is incomplete. Please complete the table by listing Total Depth and Type (B/Core, etc.) at the right-hand side of the spreadsheet for several of the 1996 holes, all of the 2009 drilling data, and the drilling data for Section 20 that includes the 2013, 2014, and 2015 borings. (BEB)

Section 3.3 - Groundwater

22. Please incorporate the monitoring well completion reports into Appendix 3.3-3 for wells 333KC, 333HA, 333SS, 369, and 369A and check to make sure that completion reports (as available) for all ground water monitoring wells are accounted for in this permit section. (BEB)

Section 3.4 - Surface Water

23. Section 3.4 of the application does not include baseline monitoring information for the prominent drainage course running through the permit addition area. Please include the baseline water

quality and quantity monitoring results in the permit revision application as required by NDAC 69-05.2-08-04(1). (RLK)

24. As required by NDAC 69-05.2-08-07, please describe the surface drainage system in sufficient detail to identify seasonal quality and quantity variations in the proposed permit addition area. (RLK)
25. Pages 3.4-2 and 3.4-3 of Section 3.4 describe the Section 20 Creek as being a second order ephemeral stream; however, the Section 20 AVF Evaluation Report describes lower reaches of the Creek as having nominally intermittent flow and that appears to be the case downstream of the confluence with the Section 19 drainage (West Tributary to Section 20 Creek). Intermittent flow was observed at the Section 20 surface water measuring station (estimated at 300-500 GPM in late fall) during the Reclamation Division's October 9, 2013 site inspection of the AVF Evaluation Report Area. We are unable to find any baseline flow data from the Section 20 measuring station in the permit. Please review surface water measuring data that BNI has collected from this location and update the permit with that information. If flow data at the Section 20 measuring station indicates intermittent flow as we suspect; the Pit Layout and Facilities Map will need to be updated by depicting those areas within the permit to the north of the monitoring station as requiring a 100-foot stream buffer zone designation. This marking will be required even though the stream(s) are not likely to be directly disturbed by mining operations, but because they are located within the permit area. (BEB/RLK/GAW)
26. Please include information concerning existing ponds in Section 20 in Subsection 3.4.2 (Usable Pre-mining Water Supplies) beginning on page 3.4-11. (JSP)
27. Please revise Plate 3.4-1, General Drainage Map, to clearly depict the classification of the drainage ways in the Section 20 addition area. This is needed at this time to determine if operations are planned within 100 feet of an intermittent or perennial stream for compliance with NDAC 69-05.2-16-20. (GAW)

Section 3.5 - Pre-Mine Land Use

28. Revised "10-24-16 or 11-28-16 Revision 40" is listed at the bottom of most pages of Section 3.5, Pre-Mine Land Use, but Revision No. 40 was not submitted to the Reclamation Division until June 26, 2017. Please revise to include the correct date associated with the revision and include this note at the bottom of only those pages where narrative changes occurred because of the revision. (GAW)

Section 3.6 - Pre-Mine Vegetation

Appendix 3.6-1c - Pre-Mining Vegetation Data - Section 20

29. Appendix 3.6-1b, Pre-Mining Vegetation Data – Section 20, contains a subsection entitled Subsection 1: Tract Assessment but there is no narrative associated with this subsection. Please review and revise to include tract assessment information or otherwise revise to provide clarity regarding this subsection. (GAW)

30. Please include a detailed narrative describing the nature and variability of the vegetation in each mapping unit for each land use found in Section 20 as required by NDAC 69-05.2-08-08(1)(d). The sampling data included in Appendix 3.6-1c must be analyzed and a discussion of the survey results must be provided. There must also be some discussion about the vegetation in mapping units that were not sampled. Language has been added to Section 3.6 that states that the pre-mining condition of the shelterbelts can be found in Section 3.6-1c but there is no information about the condition of the shelterbelts in this section of the permit, and although wetland and spring/seep vegetation survey has been included in Section 3.6-1c, there is no discussion of the data. (GAW)
31. Subsection 3, Summary of Native Grassland Methodology, includes some information about the results of the sampling that was conducted in 2013 but there is no discussion about the methodology used. Please revise to provide a detailed description of the methodology used to determine ecological condition and explain why no samples were taken on the loamy site, which is the dominant ecological site on both surface owner's tracts. Please also explain why no sampling was conducted on lands that were previously tilled and explain how the ecological condition of the native grassland located in the NW1/4 of Section 20 can be represented by the native grassland located in the balance of the tract when one area is typically grazed during the growing season and the other is typically idle. It is not clear if sampling was conducted under a grazed situation that required grazing adjustment factors to be used, if forage growth curve adjustments were used or how many samples were actually taken at each sample location. It appears that additional sampling may be needed to ensure that the baseline ecological condition of the native grassland tracts is properly represented as required by NDAC 69-05.2-08-08(c)(3) since the sampling data is 4-years old. (GAW)
32. Please include surface water quality data for the sampled wetlands and revise Section 3.6 and 3.6-1c to indicate where the pre-mine wetland water quality assessments are located in the permit. (GAW)

Section 3.10 - Baseline Fish and Wildlife Resources

33. Please revise Section 3.10-1b, Pre-Mine Wildlife Studies (Section 20), to include a summary of the acreage of the various fish and wildlife habitats in Section 20 and the adjacent study area, and include a narrative description of the apparent condition and value of each habitat type. Please also include a discussion about how the study area was evaluated to determine if any unusually high value fish and wildlife habitat exists. The approved plan states that this will be done through field investigations and/or through literature reviews and that Square Butte Creek and other unnamed streams will be specifically reviewed. The approved plan states that the ND Natural Heritage Inventory and ND GAP report will be reviewed to determine if additional surveys are needed. The evaluations mentioned above must be discussed in Section 3.10-1b and habitats of unusually high value for fish and wildlife, raptor nests, grouse leks, streams, and habitat suitable for threatened, endangered or proposed species must be depicted on a map as required by NDAC 69-05.2-08-15. (GAW)
34. Please revise Section 3.10-1b to include a discussion about the quality of the various habitats in the proposed permit area (site-specific resource information) and include a discussion about the results of the fish and wildlife surveys that were conducted. The report should include a

discussion about how the site-specific surveys were selected and the methodology used to conduct the surveys. [NDAC 69-05.2-08-15] (GAW)

35. Please revise Plate 3.10-5, Pre-Mine Wildlife Studies Map (Section 20) to include the fish and wildlife habitats on aerial photography as required by NDAC 69-05.2-08-15(2). Copies of this report will be mailed to the advisory agencies after the application has been deemed complete. (GAW)

Section 3.12 - Cultural and Historical Resources

36. The Ethnoscience 2008 Class III Cultural Resource Inventory of Section 20 has determined that prehistoric cultural resource site 32OL510 which is located in the NE1/4 of Section 20 is potentially eligible for inclusion into the National Register of Historic Places under Criterion D and testing is recommended. In its June 9, 2008 letter to BNI Coal, the ND SHPO has concurred with the Ethnoscience NRHP determination of potentially eligible. New permit narrative added with Revision No. 40 on page 3.12-2 states, "*At this time no disturbance is planned for Prehistoric site 32OL510. Mitigation plans will be submitted if disturbance is needed in this area.*" However, the Pit Layout and Facilities Map, Plate 4.1-1, clearly shows that the location of this prehistoric site will be mined in 2021; a proposed temporary ramp will be located very near or over the site; and sediment pond 20-1 will be constructed directly north of the site. Please review and provide your plan for testing, mitigation, or avoidance of 32OL510. NDCC 38-14.1-14(1)(u)(7) requires a mitigation plan approved by SHPO prior to any adverse effects on significant sites. Also as a recommendation, please consider depicting all significant cultural resource sites with the appropriate setbacks (or indicate if they are cleared for disturbance) on the Pit Layout and Facilities Map. (BEB)

Section 4.1 - Operations Plan

37. Please insert a subsection in Section 4.1 describing the intent to mine federal coal in Section 20 upon acquisition of a federal coal lease and receipt of federal mine plan approval. (WTG/RLK)
38. Please include a map that shows the location of all buildings on and within one-half mile of the permit area and include narrative discussions about the current use of all buildings as required by NDAC 69-05.2-08-02(1)(e). (GAW)
39. Please include a map that shows the location of all surface and subsurface manmade features within, passing through, or passing over the permit area as required by NDAC 69-05.2-08-02(1)(g). (GAW)

Plate 4.1-1 Pit Layout and Facilities Map

40. Plate 4.1-1 (Pit Layout and Facilities Map) depicts the pit layout for mining federal coal in Section 20 where a federal coal lease has not been acquired. Please identify the federal coal ownership in Section 20 on Plate 4.1-1 with a specific pattern and revise or conceal the pit outlines as necessary to indicate that mining will not occur until a federal coal lease is acquired and mine plan approval has been obtained. (WTG/GAW/RLK)

41. Please revise the Pit Layout and Facilities Map, Plate 4.1-1, to show the drainage ways in the Section 20 addition area as has been done in other areas of the permit. (GAW)
42. Please revise the Pit Layout and Facilities Map, Plate 4.1-1, to show the boundaries of the areas to be affected by mining activities as required by NDAC 69-05.2-09-02(3). (GAW)

Plate 4.4-1 - Blasting Map

43. Please revise Plate 4.4-1 (Pit Layout and Facilities Map) by adding a setback from the residence in Section 20. (JSP)

Section 4.7 - Water Monitoring and Drill Hole Reclamation Plans

44. Please list and add the Section 20 surface water sampling site information to the Surface Water Monitoring Plan on page 4.7-2 of the Water Monitoring and Drill Hole Reclamation Plans. (BEB)
45. Please update the Ground Water Monitoring Well Schedule (2015) located in Appendix 4.7-1 with an updated (2017) schedule. Several changes and updates have occurred since the 2015 schedule was relevant. (BEB)

Section 4.10 - Backfilling and Regrading

46. In Subsection 4.10.1 (Design Methods) BNI is proposing, without any justification, to disturb an additional 190 acres of land in the S1/2 of Section 29 where coal is not going to be removed and postmining topography changes are being proposed with Revision No. 40 in Sections 29 and 32. NDAC 69-05.2-13-05 requires minimizing disturbance on lands where coal is not going to be removed. Please provide proper justification for this additional disturbance. (GAW/BAJ/JSP)

Section 4.11 - Suitable Plant Growth Material Removal and Replacement

47. Please revise Section 4.11 to reflect the addition of Section 20 to the permit with Revision No. 40. (WTG)

Section 4.14 - Reclamation Cost Estimate for Bonding Purposes

48. Please update the worst-case bond estimates for bonding purposes, Section 4.14, to include a discussion about reviewing the worst case reclamation cost estimate for changes proposed with Revision No. 40. The three ponds and associated topsoil stockpiles that are to be constructed in 2019 in Section 20 should be discussed in Section 4.14 along with any other disturbance proposed that may cause 2019 bond calculation changes. (GAW/JSP/BAJ)

We noted that several recent grade approval requests have not been graded to the currently approved post mine topography or to the post mine topography proposed in Revision 40. Until such time that we have had a chance to review the revised post mine topography and apparent spoil shortage, we may not grant grade approvals for the areas affected by the revised post mine topography. We suggest a meeting in the near future to further discuss this matter.

Jay M. Volk, Ph. D
August 4, 2017
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Please contact this office if you have any questions.

Sincerely,



Dean K. Moos
Director
Reclamation Division

cc: Karene Hall
Jon Rudnick
Jodey Houn
Oliver County Auditor

Minedata/Center/Permits/BNCR-9702/Revisions/No.40/Rev40_complete_rvw_ltr_8-4-17