



Public Service Commission

State of North Dakota

COMMISSIONERS

Kevin Cramer
Tony Clark
Brian P. Kalk

Executive Secretary
Darrell Nitschke

600 E. Boulevard Ave. Dept 408
Bismarck, North Dakota 58505-0480
Web: www.nd.gov/psc
E-mail: ndpsc@nd.gov
Phone 701-328-2400
Toll Free 1-877-245-6685
Fax 701-328-2410
TDD 800-366-6888 or 711

April 28, 2010

Mr. Richard A. Southwick
Vice President, Environmental
South Heart Coal LLC
173 Cottonwood Road
Townsend, MT 59644

Dear Mr. Southwick:

The Reclamation Division has conducted a completeness review of South Heart Coal LLC's application for Surface Coal Mining Permit Application No. SHSH-1001 for the South Heart Mine, in accordance with NDAC 69-05.2-05-01(2). The following items must be satisfactorily addressed before the Reclamation Division can deem the application complete.

Section 1.0 – Introductory, Legal, Financial, Compliance and Related Information

1. The application form, SFN 10522, in Appendix 1.1.1 requests authorization to engage in surface coal mining and reclamation operations from July 2014 until July 2043. NDCC 38-14.1-12 and NDAC 69-05.2-05-08 (3) limit surface coal mining permits to a period not to exceed five years. However, this provision authorizes the Commission to grant a longer permit term if the applicant demonstrates that a longer term is needed to allow the applicant to obtain necessary financing for equipment and the opening of the operations, and this need is verified, in writing, by the applicant's proposed financing source, and the application is accurate and complete for the longer period. Please revise the permit term on the permit application form to a 5-year permit term to meet the requirements of NDCC 38-14.1-12 and NDAC 69-05.2-05-08 (3) or provide the necessary demonstration for a longer period term. (GAW & SAS)

Section 1.2.4 – Newspaper Publication Notice

2. The ownership listing for Section 23 is confusing as it is included with the listing for the N $\frac{1}{2}$ of Section 22 under the heading **Section 22** (both tracts have the same surface and coal ownership). Please revise the notice to more clearly show that a tract in Section 23 is being permitted. (JRD)
3. The last ownership tracts listed in the notice are for the NE $\frac{1}{2}$ and NW $\frac{1}{2}$ of Section 34. These should be corrected to the NE $\frac{1}{4}$ and NW $\frac{1}{4}$ of Section 34. (SAS, GAW, & DKM)

4. The notice lists Linda L. Yoder as a coal owner in Section 22 but she is not listed along with the other owners for Tract IDs C-1399822-B and C-1399822-C. Please review and correct as necessary. (SAS)
5. The Title ID for Tract C-1399828-A shows that LaVone G. Johnson (with Richard) and Mary Ann Johnson (with Robert) also signed the coal leases. It appears that they should also be listed as coal owners for the tract located in the NE $\frac{1}{4}$ of Section 28. Currently they are not shown as coal owners in the listing in Appendix 1.3-2 or the notice. Please explain or correct as necessary. (SAS)
6. The notice indicates that an overpass will be constructed on 122nd Avenue prior to 2038 and that this will not be removed. Please delete the language that states that the overpass will stay in place and not be removed post-mining. At this time it is not certain if the overpass will be allowed to remain as a permanent feature. That decision will be made once the structure is no longer needed. (MDB/GAW)
7. The discussion regarding conducting mining operations within 100' of the outside right-of-way and road closures in the notice and Section 1.5.5 is very confusing and needs to be clarified. Only road closures are included in this discussion and there is no mention of conducting mining operations within 100' of the outside right-of-way of any public roads as required by NDAC 69-05.2-10-01(1)(d). If mining will be conducted within 100' of the outside right-of-way but the road will not be closed, then this will need to be indicated in the notice and Section 1.5.5. It is suggested that a tabular listing be provided of all of the roads and section lines that will be closed and a separate listing of the roads and section line trails in which mining operations will be conducted within 100' of the outside-right-of-way. The status of each affected road (county road, section line trail, etc.) should also be identified. It is also recommended that roads and section lines be described as common to two sections (e.g., a section line common to Sections 16 and 21 or a county road common to the south half of Sections 27 and 28). The description of an "east-west road bisecting Section 20 at the mid-line of the section" (20) is very confusing. Please clarify this description. Additional items related to road closures and mining within 100' of the outside right-of-way are discussed below in more detail. (DKM/GAW)
 - The east-west road bisecting Section 20 at the mid-line of the section is not shown on Figures 1.2-1 or 3.5-11b. It is not clear where this road is located based on the narrative description of the road in the public notice, nor is it clear if this is a public road. The paragraph on page 7 of the notice discusses connecting this road with a new road and improving approximately 4,000 feet of existing road located in the middle and southern portions of Section 20. This is very confusing since these roads are not shown on Figure 1.2-1. Furthermore, the notice states that the east-west road located along the south section line of Section 20 will be closed, but this road is not shown on Figures 1.2-1 or 3.5-11b. A clear distinction between public roads, private roads, and unimproved section line rights-of-way needs to be made when describing the road in and around Section 20. (GAW)
 - Figure 3.5-11b identifies a road that will be removed between Sections 21 and 22 that then diagonally crosses the N $\frac{1}{2}$ of Section 27 but this road is not shown on Figure 1.2-1. That portion of this road located beyond the section line right-of-way should not be considered a public road unless the county has an easement for the road. Please review and clarify as necessary. (GAW)

- The notice states that the north-south road located along the southern portion of the west section line of Section 27 and the north-south road located along the northern portion of the west section line of Section 27 will be closed. This is confusing. It appears that the southern portion of the section line is an improved section line road while the northern portion is simply a section line right-of-way. Please clarify. (GAW)
 - The notice does not mention closing the section line right-of-ways located between Sections 15 and 16, Sections 16 and 17, Sections 21 and 22, Sections 21 and 28 and it is not clear if all of the section lines between Sections 27 and 28 and Sections 22 and 27 are being closed. Please review and revise the notice as necessary. (GAW)
 - The final sentence of the last paragraph on page 7 of the notice is confusing. It is not clear what is meant by improving approximately 1,000 feet of the section line road along both the northern and southern portions of Sections 33 and 34. Preceding statements indicate that a new road will be constructed along the south section lines of Sections 33 and 34 and that the north section line will be closed. (GAW)
 - Page 8 of the notice identifies five roads that will be closed prior to the beginning of mine construction through life of mine. However, the notice (pages 6 and 7) already states that all but one of these roads will be closed. Please edit for clarity. (GAW)
8. Please show the section lines and section numbers on the newspaper publication map, Figure 1.2-1. The map that accompanies the newspaper notice (Figure 1.2-1) must be enlarged to adequately show the proposed permit area in adequate detail. NDAC 69-05.2-10-01(1)(b)(2) (DKM & GAW)

Section 1.3 – Business Information, Identification of Interests and Rights of Entry

9. Please include the names and addresses of the principles, officers and registered agent of all surface and coal owners that are not sole proprietors as required by NDCC 38-14.1-14 (1)(c)(6). Great Northern Properties Limited Partnership and PHP LLP are listed as coal owners so this information must be provided for these coal owners. Please update Section 1.3.5, Permit Area Surface and Coal Interest accordingly. (GAW)

Section 2.3 – Geology

10. There appears to be a gap in overburden sampling locations for areas within the N½ of Section 16, T139N, R98W. Please provide the required information in applicable sections of the permit as well as in Figure 2.3-17A or provide justification in the permit for the apparent data gap. It appears that an additional two sampling locations within the described area is necessary to meet the requirements of NDAC 69-05.2-08-05(2). (BEB)

Section 2.4 - Soil Resources

11. In order to help in the review of the soils report, please insert the soil map unit legend shown on the soil survey maps as a separate table in Section 2.4. It is currently only shown as part of Table 2.4-4 Soil Map Unit Descriptions. (WTG)
12. Please provide copies as an appendix to Section 2.4 of the laboratory analysis reports conducted for the soil survey that are summarized in Table 2.4-2 in Section 2.4.5.1. Please

reference and hyperlink the appendix in Section 2.4.5.1 - Laboratory Results on page 12.
(WTG)

13. Laboratory data summaries for the Flasher and Janesburg series are absent from Table 2.4-2 in Section 2.4.5.1, and there is no notation on the pedon description that the pedon was not sampled. Please include the laboratory data in Table 2.4-2, or explain why it is absent.
(WTG)
14. Please insert a page at the beginning of Appendix 2.4-1 Typical Soil Series Pedon Descriptions in Section 2.4.5.2 that provides an explanation for abbreviations. Several of the column headings are abbreviated (percent clay, coarse fragments, effervescence, and visible salts) and they may not be clear to someone unfamiliar with soil descriptions. Rather than changing column headings for each page in the appendix, however, we suggest that the explanation page provide a one-line descriptor of each column heading: for example, Roots - presence or absence. Please also provide an explanation for the following abbreviations used for horizon descriptions: roots, texture, structure, effervescence, and visible salts. (WTG)

Section 2.5 – Ground Water Hydrology

15. As available, please incorporate the construction summary details and charts for ground water monitoring (observation) wells SHO-01, SHO-02, SHO-03, SHO-04, and SHO-05 into Appendix 2.5-1, lithologic logs of the described wells into Appendix 2.5-2, and geophysical logs of the described wells into Appendix 2.5-3 as required by NDAC 69-05.2-08-06 (1)(d).
(BEB)
16. As required by NDAC 69-05.2-08-06(1)(d), please incorporate geophysical logs for the SHMW-01, 09, 11, 14, and 15 series of ground water monitoring wells into Appendix 2.5-3 or provide the rationale for not including this information in the permit. Several of the described wells are screened in alluvium, although a couple of the wells are screened in overburden as well as in the D Coal seam. (BEB)

Section 2.6 – Surface Water Information

17. As required by NDAC 69-05.2-08-04(1), please provide a description in Section 2.6.2 of all stock ponds and reservoirs (impoundments or excavations) within the permit boundary. We recommend this be done in a table format that lists the designation, location, use, date surveyed, type, water sampling date (if sampled), spillway or embankment condition, estimated pool size, conditions, features, and whether or not it will be disturbed. Additional documentation could include a photograph of each pond with documentation of designation and date. (WTG)
18. As required by NDAC 69-05.2-08-04, please describe in Section 2.6.5 - Surface Water Probable Hydrologic Consequences, what impact the operation will have on surface water availability, particularly with respect to stock ponds and other developed water resources. If necessary, provide information on the availability and suitability of alternate water sources for existing pre-mining and approved post-mining land uses. (WTG)
19. The hyperlink to Table 2.6-18 on page 22 in Section 2.6.5.1 does not appear to function. Please correct as necessary. (WTG)

Section 2.10 – Wetlands

20. Please consider the use of bookmarks in Appendix D and E of Section 2.10-1 so reviewers can find a field data form or photo of a wetland sample plot without scrolling through 160 pages in Appendix D and 40 pages in Appendix E. (GAW)

Section 3.0 – Operations Plan

21. As required by NDCC 38.14.1-14(2)(c), please include a narrative in Section 3.0, Operations, that discusses the consideration that has been given to maximizing the utilization and conservation of the coal being recovered so that re-affecting in the future can be minimized. (GAW)
22. On Figure 3.1-1, Pit Layout and Facilities Map, please indicate where the coal crushing facility and coal stockpile is to be located and address water management for these structures as necessary. NDAC 69-05.2-09-01(3)&(4) (MSK/MDB)
23. Please reference an existing or new figure on page 8 in Section 3.1.2.3 - Topsoil Removal, where the land ownership parcels listed in Table 3.1-5 are shown. Please also reference the figure as a footnote to Table 3.1-5. (WTG)
24. In Section 3.3.4, Blasting Plan - Notices, the ND Public Service Commission should also be listed as one of the government agencies that receives the blast notice schedule. (MDB)
25. Please update Section 3.4, Air Quality Control Plan, to discuss compliance with NDAC 69-05.2-09-02(10) which requires a map showing any air pollution collection and control facility. We realize that air pollution collection and control facility sites may not be required by the ND Department of Health Air Quality Permit-to-Construct, but the issue should be discussed and if collection and control facilities are to be constructed, they should be shown on an appropriate map. (GAW)
26. Please include detailed designs for the South Branch Heart River Bridge which is projected to be constructed prior to 2014. Currently the permit application contains conceptual design and limited information regarding the bridge, but is shown as part of the haul road profile. If the designs are not finalized at this time, the haul road design should not include the bridge at this time. The bridge must meet the requirements of NDAC 69-05.2-24-03(5)(b). (MDB)
27. Please include a brief discussion of the overpass that is to be constructed over County Road 122 between the SW¼ of Section 23 and SE¼ of Section 22 and either include design plans for this overpass or indicate that such plans will be included in the permit by revision prior to construction. Please indicate the approximate time period for its construction and why it will be needed. This overpass is briefly mentioned in a narrative on page 29 of Section 3.5.1.4. (GAW)
28. Please include the watersheds for CVT70+51 and CVT55+75 on Figures 3.6-2 and 3.6-3 as well as detailed design plans and calculations for the diversions flowing into CVT70+51 to show the culvert is capable of handling the flows required by NDAC 69-05.2-24-03(5). (MDB)

29. In Section 3.6.1, Surface Water Management Plan, please add a statement that detailed water plans for the Pit 2 sequence, including re-routing of the West Tributary will be provided later as allowed by NDAC 69-05.2-09-09(1)(e). However, preliminary plans for this diversion need to be discussed at this time. (MSK/GAW)
30. Please label the contour elevations on all of the Water Management Maps, Figures 3.6-1 through 3.6-9; and, update the legend to show the map scale at an established printed page size. (GAW)

Section 4.1 – Reclamation Plan

31. The overburden quality sample data for borehole SHOB-11R appears to be absent from Table 4.1-1 in Section 4.1.1.1, Topsoil and Subsoil Removal, while the sample data for borehole SHOB-120R appears to be listed twice, although the data presented on page 8 differs from data presented on page 19. Please review and correct as necessary. (WTG)
32. It appears that much of the methodology used to calculate the worst case bond in Appendix 4.1-1 (Worst Case Bond) does not follow the guidance provided in Policy Memo 16 to Mine Operators. We suggest that you contact Mike Berg of the Reclamation Division to discuss this matter further. (MDB)
33. Please include 5 foot contour intervals on Figure 4.1-7B, Permanent Diversions and Impoundments and Wetland Restoration, so that the plan can be properly evaluated and include the design plans for the wetland complexes showing that the watersheds will be of sufficient size to contribute an ample supply of water from normal year precipitation by the ND Water Commission and a 50% annual water yield from the contributing watershed as required by our Standards for Evaluation of Revegetation Success and Recommended Procedures for Pre- and Post-Mining Vegetation Assessments document. Incidentally, the terminology “permanent diversions and impoundments” in the narrative on page 4 of Section 4.1.1.2 and in the legend of the figure is poor terminology as the permanent diversions and impoundments are simply recreated drainageways with wetlands. (GAW)

Section 4.2 – Post-Mining Land Use

34. As required by NDAC 69-05.2-09-13-1, please describe how pre-mine developed water resources affected by mining will be restored during reclamation in support of native rangeland or tame pastureland land use. (WTG)
35. Please include the assumptions and a typical design plan that will be used for the stockponds on reclaimed lands and add a statement that the detailed design plans for each stockpond will be submitted via permit revision before it is constructed. Also, please note that the ponds to be reclaimed in the S½ of Sections 15 and 16, as stated on page 25 of Section 4.2.2 in accordance with the land owner preference statement, are not shown on the Post-Mining Land Use Map. SHC will need to demonstrate that the drainageway that is to be recreated in the S½ of Sections 15 and 16 will support the wetlands within the drainageway and the stockponds (developed water resources). (GAW)
36. The hyperlink to Table 4.2-2 on page 20 links to Figure 4.2-2 by mistake. Please correct the hyperlink. (WTG)

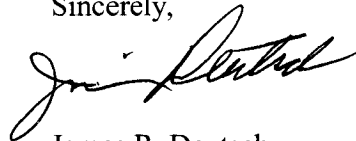
General

37. The Pit Layout and Facilities Map, Figure 3.1-1, Life of Mine Map, Figure 3.1-2, Utilities Maps, Figures 3.1-5a-d, Life of Mine Water Management Plan Maps, Figures 3.6-1, Permit Term Water Management Plan Sheets, Figures 3.6-2 & 3.6-3, Pre- and Post- Mining Topography Maps, Figures 4.1-6 & 4.1-7a, Pre- and Post- Mining Slope Maps, Figures 4.1-8 & 4.1-9, Soil Respread Thickness Map, Figure 4.1-10, Post- Mining Land Use Map, Figure 4.2-1, and other maps have been prepared with a print scale of 1:24,000, 1"=2,000', on 17" X 22" inch paper size. This scale is too small to be usable when printed. Please revise these maps using a scale of 1:12,000, with a page print size of 36" x 44", ANSI "E" size. The map scale between different maps should be consistent to allow overlaying. In addition, the contour interval elevation labels have been placed under the contour line in many instances on these maps. Please place the elevation label on top of the contour line. (GAW)

Also, while this is not a deficiency, we recommend using an alternative format for presenting the information shown in Figures 1.3-2 and 1.3-3, Surface and Coal Ownership in Section 1.3.5 - Permit Area Surface and Coal Interest. The colors, fill patterns, and labels used on the figures make it difficult to interpret the information presented. Please also consider simplifying these figures by removing roads, railroads, drainages, and the quarter-mile permit boundary buffer line.

If you have any questions, please contact this office.

Sincerely,



James R. Deutsch
Director
Reclamation Division