



September 21, 2018

Mr. Dean K. Moos  
Reclamation Director  
ND State Public Service Commission  
600 East Boulevard, Dept. 408  
Bismarck, ND 58505

**RE: Technical Review (2) Responses for Revision 38 to Permit NAFK-8405**

Dear Mr. Moos:

Falkirk submits the following responses to the technical review (2) of the application for Revision No. 38 to Surface Coal Mining Permit NAFK-8405 for The Falkirk Mine in your letter dated September 19, 2018.

**REVISION NO. 38**

**Section 2.1 – Cultural Resources**

- 1. New item: The Summary of Cultural Sites in Section 2.1.3 lists the Site No. 32ML834 recommendation as both Not Eligible and Eligible (NE/E). We assume this is a typographical error to be corrected, but if it is anything other than that, please explain. (BEB)***

Please see the updated Summary of Cultural Sites in Section 2.1.3. A footnote was added to the bottom of the last page regarding site numbers 32ML833 and 32ML834. Both sites as a whole were recommended as not eligible but an individual structure was recommended as eligible. For more details on the cultural sites, please see the Cultural Resources Narrative in Section 2.1.1 and the Current Status of Cultural Resources Site Inventory in Section 2.1.4.

**Section 2.6 – Surface Water Information and Monitoring Plan**

- 2. Follow-up to item No. 12: The additional explanation provided on the post-mine drainage analysis updates made with this revision is appreciated. Although a response is not required to this follow-up, we encourage Falkirk to continue to utilize drainage design***

*practices and refinements that identify the erosion potential of drainage shapes and features. Please maintain up-to-date drainage design software capabilities to ensure the programs are handling the drainage way structures appropriately. We do recognize Falkirk's capabilities and plans to implement erosion and sediment controls during reclamation and to repair erosion as described in the Reclamation Procedures Narrative in Section 4.2.1. (RLK)*

No response required.

### **Section 3.6 – Surface Water Management Plan**

- 3. Additional Update No. 1: Please update the Water Management Plan Map to show pond P-E21-01 as reclaimed. The 2017 annual map and our records indicate that this pond was reclaimed in 2017. (RLK)***

Section 3.6.1a, Total Water Management Plan Map has been updated to show that sedimentation pond P-E21-01 was reclaimed in 2017.

- 4. Additional Update No. 2: Please update the Pond Construction and Reclamation Schedule, Section 3.6.1d, to remove pond P-E21-01 that was reclaimed in 2017 or identify as such. (RLK)***

Section 3.6.1d, Pond Reclamation and Construction Schedule has been updated, sedimentation pond P-E21-01 has been removed.

- 5. Additional Update No. 3: The Elevation-Area-Capacity Curve provided for sedimentation pond P-E02-01 in Section 3.6.66a differs slightly from the information provided in the corresponding table found in Section 3.6.66. Please review and revise as appropriate. (RLK)***

The Elevation-Area-Capacity curve for sedimentation pond P-E02-01 in Section 3.6.66a has been corrected.

### **Section 4.1 – Post-Mining Land Use and Revegetation**

- 6. Follow-up to item No. 27 and item No. 7 of Additional Updates: Please revise Section 4.1.1, Post-Mining Land Use Narrative, to include a detailed discussion of why replacement shelterbelts in Section 27 and new plantings in the NE1/4 of Section 23 and NW1/4 of Section 24 are now classified as conservation plantings with this revision. (GAW)***

Please see the updated Post-Mining Land Use Narrative in Section 4.1.1 on page 8.

7. *Follow-up to item No. 30: Please review the 36.5 acres of final bond released Cropland shown for Section 26 in the Pre- and Post-Mining Land Use Acreage Comparison Table in Section 4.1.3. Final Bond Release No. 1 to NAFK-8405 did not include cropland land use acres. Although the land was initially reclaimed to cropland, the land within the Coal Lake transfer area was re-designated as recreational land use. The land use tables were updated with Revision No. 33 to account for the designation of the Coal Lake transfer tracts as Recreational land use, thus it appears that the acreage adjustments for BRI should only affect the Recreational, Native Grassland and Woodland land use categories. (RLK)*

Please see the updated Pre- and Post-Mining Land Use Acreage Comparison Table in Section 4.1.3.

8. *Follow-up to item No. 30: Please review the native grassland final bond release acreage listed for Section 26 in the Pre- and Post-Mining Land Use Acreage Comparison Table in Section 4.1.3. Final Bond Release No. 1 identified a large area of land owned by the Historical Society and a small area owned by Missouri River Sanitation as being undisturbed native grassland and woodland land uses. (RLK)*

Please see the updated Pre- and Post-Mining Land Use Acreage Comparison Table in Section 4.1.3.

#### UNDERWOOD GROUND WATER HYDROLOGY

9. *New item: Narrative on page 2 of Section 2.2.1 states, "One hundred and fifty-three (153) water supply wells have been identified in the study area, eighty-three (83) of which are not currently being used." With updated well certification information provided in this revision in Sections 2.2.14 and 2.2.15, these numbers can now be revised to one hundred and sixty-two (162) identified and ninety-five (95) that are not currently being used, based on our count. Please note that these numbers may change pending additional updates to the document concerning several of the deficiencies listed below. Please also indicate in the narrative that these numbers reflect updated information current with the approval of Revision No. 38 to Permit NAFK-8405. (BEB)*

Please find changes made as requested.

10. *Follow-up to item No. 33: Narrative in the sixth paragraph of Section 2.2.2 on page 1 has updated the number of monitoring wells that have been installed in the study area, but states that "Four hundred twenty-eight (444) monitoring wells..." Please revise the sentence to read Four hundred forty-four monitoring wells." (BEB)*

Please find changes made as requested.

11. *Underwood Ground Water Hydrology Additional Update No.1: Based on well certification information provided in Section 2.2.15c, Emmanuel Schauer Well #1 was re-certified in January 2015. Please update the Water Supply Well and Spring Information summary table in Section 2.2.14 to reflect re-certification of that well because the "Date of Last Certification" for the well remains listed as September 1980. (BEB)*

Please find changes made as requested.

12. *Underwood Ground Water Hydrology Additional Update No. 1: The bookmark for Jay Snyder #1 Well recertification information (9/14/2015) provided in Section 2.2.15c (Owners Q through T) connects with the Randy Van Asperen Well #1 certification information that should be provided in Section 2.2.15d, but is not. The only Jay Snyder Well information provided in Section 2.2.15c is the original Well Driller's Report from 1977. Please place the well certification information for the Jay Snyder #1 Well in Section 2.2.15c and place the Randy Van Asperen Well #1 re-certification information (September 2015) in Section 2.2.15d. Additionally, there is no listing for the Jay Snyder #1 Well in the summary table of Section 2.2.14. (BEB)*

The Jay Snyder well and the Randy Van Asperen well are the same well. Randy Van Asperen is the new well owner. The well certification remains under Jay Snyder's name in Section 2.2.15c for sake of record keeping. The well is cross referenced in Section 2.2.14. Per conversation with Bruce Beechie on 9/20/18, we agreed to leave this information in the permit as is.

13. *New item: The Post-Mining Hydrologic Assessments for the East Mine Area, Island Mine Area and West Mine Area were previously approved assessments that have been incorporated into the Underwood Ground Water Hydrology document with Revision No. 38. However, we have noted several small errors in the East Mine Area PHA and West Mine Area PHA that were an oversight on our part during the technical review of those documents, but we would appreciate a correction at this time. The second sentence of the EMA-PHA Introduction in Section 1 on page 3 describes the ND Century and Administrative Code hydrologic protection performance standards that the PHA addresses and NDAC 69-05.2-12 is listed twice. We ask that you change one of the duplicate Administrative Code listings to NDAC 69-05.2-14. Separately, the second sentence of the WMA-PHA Introduction in Section 1 on page 3 lists NDCC 38-14.1-14 and this should be changed to NDCC 38-14.1-24. Please make these updates, but note that red highlighting of the changes in these assessments with your updated Revision No. 38 submittal will not be required in this particular instance. (BEB)*

Mr. Dean K. Moos  
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Please find changes made as requested.

Sincerely,

**THE FALKIRK MINING COMPANY**



Jason Frye  
Environmental Specialist

JF/tv  
Enc.