

## FALKIRK MINE

February 29, 2016

Mr. James R. Deutsch  
Reclamation Director  
ND State Public Service Commission  
600 East Boulevard, Dept. 408  
Bismarck, ND 58505

**RE: Technical Review Responses for Revision 27, Renewal #4 to Permit NAFK-9503**

Dear Mr. Deutsch:

Enclosed are three DVDs containing the technical review responses for Revision 27, Renewal #4 to Permit NAFK-9503 in regard to your letter dated February 19, 2016 and the email from Zanna Brinkman received on February 24, 2016.

If you have any questions regarding the enclosed materials or require additional information, please advise.

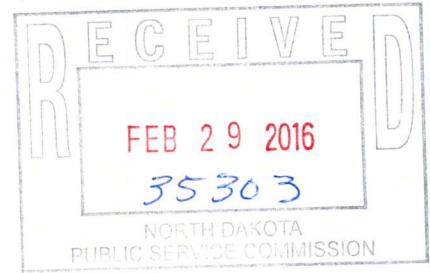
Sincerely,

**THE FALKIRK MINING COMPANY**

Jason Frye  
Environmental Specialist

JF/tv  
Enc.

- 10 RC-15-756 Filed 02/29/2016 Pages: 7  
Response to the technical review letter filed by the applicant  
Falkirk Mining Company  
Jason Frye
- 10 RC-15-755 Filed 02/29/2016 Pages: 7  
Response to the technical review letter filed by the applicant  
Falkirk Mining Company  
Jason Frye



February 29, 2016

Mr. James R. Deutsch  
Reclamation Director  
ND State Public Service Commission  
600 East Boulevard, Dept. 408  
Bismarck, North Dakota 58505

**RE: Technical Review Responses for Revision 27, Renewal #4 to Permit NAFK-9503**

Dear Mr. Deutsch:

Falkirk submits the following responses to the technical review of the application for Revision No. 27, Renewal #4 to Surface Coal Mining Permit NAFK-9503 for The Falkirk Mine in your letter dated February 19, 2016 and the email from Zanna Brinkman received on February 24, 2016.

**Section 1.5.1 Permit Surface and Coal Interests**

- 1. Follow-up to item No. 4: Please update addresses in all applicable tracts in Section 1.5.1 for Pauline Rosberg to 1431 N 16th St., Bismarck, ND 58501-2849 and for Kay Hegvik to 512 Wellington CT., West Fargo, ND 58078-4237. (ZAB)***

Tracts 109, 132, 133, 135, 136, 141, 143, and 144 – The addresses for Pauline M. Rosberg and Kay M. Hegvik were updated in Section 1.5.1.

- 2. Follow-up to item No. 4: The Reclamation Division sent notice of the permit revision and renewal by certified mail to Neoma J. Voegel, but the letter was returned to us marked “deceased.” Please update the ownership for all tracts in Sections 1.5.1 and 1.5.3 as appropriate. (ZAB)***

Tract 164 – The ownership for Neoma J. Vogel was updated in Section 1.5.1 and 1.5.3.

In addition to Item Nos. 1 and 2, numerous other Tracts were updated to reflect additional changes to current ownership and leasehold information since the completeness review of

NAFK-9503. The Tract Summary was also updated and the following is a table identifying the updates to individual Tracts:

Tract No.	Address change to surface and/or coal ownership	Corporate officers and/or registered agents change	Documentation added Leases, WD, AOE	Easement information updated	Leasehold status change	Note added	Ownership change to surface and/or coal	Tract added or tract description changed
47			X		X		X	
49			X		X		X	
82	X		X		X		X	
89	X		X		X		X	
90			X		X		X	
109	X							
132	X							
133	X							
135	X							
136	X							
141	X							
143	X							
144	X							
146	X							X
148	X							
164	X						X	
174							X	
181	X		X		X		X	X

**Section 1.5.2 Adjacent Surface and Coal Interests**

3. ***Follow-up to item No. 4: Please review the new address listed for Linda Petroleum Co. and Murex Petroleum Corp. The same address was used for both businesses and only some of the tracts in Sections 8 and 9, T144N, R83W were updated. Please update all appropriate tracts. (ZAB)***

The addresses for Linda Petroleum and Murex Petroleum Corporation were updated in all applicable tracts.

4. ***Follow-up to item No. 4: Please review the addresses for Nokota Co., Red Crown Royalties, and Three Forks Oil Co. The addresses for these companies were updated for some tracts but not others in T145N, R82W and in T145N, R83W. (ZAB)***

The addresses for The Nokota Company, Red Crown Royalties, LLC, and Three Forks Oil Corporation were updated in all applicable tracts.

In addition to Item Nos. 3 and 4, the surface and coal ownership information has been updated and red-lined to reflect additional changes to current ownership and leasehold information since the completeness review of NAFK-9503.

5. ***Follow-up to item No. 4: Please review and revise as appropriate the coal owners listed in the SE1/4NW1/4 of Section 30, T146N, R83W. Susan M. Alft and Daniel Alft are listed as coal owners in Section 1.5.2 but not on the map in Section 1.5.3. (ZAB)***

Susan M. Alft and Daniel Alft were added as coal owners in the SE4NW4 of Section 30, T146N-R83W in Section 1.5.3

#### **Section 2.4.2 – Fish and Wildlife Management Plan**

6. ***Follow-up to Item No. 12: Please revise the last sentence of the Dakota Skipper narrative to clarify that the management plan involves annual surveys to determine species presence rather than stating that “no management plans will be incorporated”. (GAW)***

Please see the updated Fish and Wildlife Management on pages 7 and 8 in Section 2.4.2 regarding the Dakota skipper.

7. ***Follow-up to Item No. 12: Please revise the Northern Long Eared Bat (NLEB) discussion that has been added on page 7 of Section 2.4.2 to discuss how the Northern Long-Eared Bat final 4(d) rule applies to the Falkirk Mine. Please also provide a citation to support the claim that cottonwood groves along the Missouri River are considered “prime habitat” and quantify the types of suitable habitat and hibernacula within and adjacent the permit area. (GAW)***

Please see the updated Fish and Wildlife Management on page and 8 in Section 2.4.2 regarding the Northern long-eared bat.

#### **Section 2.4.3 – Wildlife Monitoring Plan**

8. ***Follow-up to Item No. 13: A new paragraph on page 9 of Section 2.4.3, Wildlife Monitoring Plan, states that annual surveys will be conducted on areas with suitable Dakota Skipper habitat. Please include a map that identifies the areas within and adjacent to the permit that have been determined to have suitable habitat and identify where these surveys will be conducted annually. Please also discuss who will conduct these surveys and the procedures and protocol that will be followed. (GAW)***

Please see the updated Wildlife Monitoring Plan on pages 6 and 7 in Section 2.4.3 regarding the Dakota skipper and Northern long-eared bat.

#### **Section 3.6.1 – Surface Water Management Plan**

- 9. During the time since this revision application was first submitted, ponds PW-R26-01, P-R06-01 and PW-R06-05 were completed and pond P-R25-03 was reclaimed. Please update the Surface Water Management Plan Map, Section 3.6.1a, and the Pit Layout and Facilities Map, Section 3.1.5, as appropriate. (RLK)**

Section 3.6.1a Total Water Management Plan Map and Section 3.1.5 Pit Layout and Facilities Map have been updated to show that construction of PW-R26-01, P-R06-01, and PW-R06-05 have been completed and that P-R25-03 has been reclaimed.

- 10. The design plan narrative in Section 3.6.35 for pond P-R06-04 should be updated to indicate construction is planned for 2016 and, that with the completion of MSHA pond P-R06-01, the impoundment will discharge to an ephemeral drainage that flows into pond P-R06-01. Also, Falkirk should reconsider the need for a NDPDES discharge point for pond P-R06-04 as stated in the narrative since it appears that the discharge will be managed through the downstream MSHA pond prior to leaving the mine area. (RLK)**

Pond P-R06-04, Section 3.6.35, has been removed from the permit. This pond was designed and added to the permit as a contingency in the event that MSHA Pond P-R06-01 was not approved for construction and/or constructed in time for SPGM removal in its watershed. With the construction and certification of P-R06-01, P-R06-04 is no longer needed.

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

- 11. Follow-up to Item No. 30: Please revise the narrative added on page 9 of Section 4.1.5 describing replacement shelterbelt plantings in Section 24, T145N, R83W. The narrative describes all the plantings as being located in the NW1/4 of Section 24 but two plantings are located in the SW1/4 of Section 24. Also, please review the paragraph preceding the added narrative that refers to windbreaks established in the in the E1/2 of Section 24 and revise as appropriate. (RLK)**

Please see the updated Revegetation Procedures and Establishment narrative on page 9 in Section 4.1.5.

#### **Section 4.2 – Reclamation - General**

- 12. Follow-up to item No. 31: The last sentence of the narrative describing “Area T” in Section 4.2.2 states that the Post-mining contours for Area O will be achieved as mining activities are completed. Please clarify or revise as appropriate. (RLK)**

Please see revised narrative on page 3 in Section 4.2.2, Reclamation Schedule.

- 13. Follow-up to item No. 31: The reclamation schedule narrative in Section 4.2.2 was revised to remove the paragraph describing "Area J" but the grading sequence map, Section 4.2.3, still depicts an area labeled Area J in the N1/2 of Section 35, T145, R83W. Please review and revise as appropriate. (RLK)**

Please see updated Section 4.2.3, Grading Sequence Map.

- 14. Follow-up to item No. 31: The narrative and Reclamation Schedules table in Section 4.2.2 and the Grading Sequence Map in Section 4.2.3 are not consistent with the Pit Layout and Facilities Map in the permit or the most current extended mine plan submitted to the Reclamation Division on January 21, 2016. Please update Sections 4.2.2 and 4.2.3 by adding details for all areas that will require a variance during the next 5 year permit term and removing variance areas where revegetation has been initiated as previously discussed with Zanna Brinkman. (ZAB)**

Please see updated Section 4.2.3, Grading Sequence Map and Section 4.2.2, Reclamation Schedule.

**Additional Deficiencies sent by email on 02/24/2016**

**Section 2.2 – Ground Water Hydrology**

***We have noted that the potentiometric surface maps, Sections 2.2.25a, b, c, d, e, and f are all labeled as having been updated in 2015 by GEG; however, the legend also depicts (December, 2009 Water Levels). If the potentiometric elevations on these maps have been updated with 2015 water levels, please correct the legend statement that states they were updated in 2009. If the potentiometric elevations have not been updated since 2009, we request the maps be updated with current data either now or with submission of the next revision to the Riverdale permit. (BEB)***

The maps were updated in 2015 to reflect pit progression through 2014, however, the potentiometric surface was not updated. A comparison of the 2009 potentiometric surfaces against the most recent potentiometric surfaces for the aquifers indicates there hasn't been a significant enough change to warrant updating this portion of the map. Therefore, the potentiometric surface maps will be updated with the most recent data in the next revision.

**Section 2.3 - Geology**

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***New item: During the pre-renewal review we requested that all ground water hydrology maps be updated to depict current pit progression and we neglected to request the same updates for the geology maps. Similar to the permit hydrologic maps, we have noted that the geologic structural contour maps, burden thickness maps, and the drillhole location and cross-section reference maps in Section 2.3 have not had the limits of pit progression updated since 2009. Please provide those updates at this time to show mined pit locations in the permit through 2015. (BEB)***

Please see the updated Geology Maps in Sections 2.3.11a, 2.3.11b, 2.3.11c, 2.3.11.d, 2.3.12, 2.3.13, 2.3.14, and 2.3.15.

### **Section 3.0 – Operations Plans**

***New item: Please update the Pit Layout and Facilities Map in Section 3.1.5 and the Total Water Management Plan Map in Section 3.6.1a to show that sediment pond P-R25-03 has been reclaimed. Also, since subsoil stockpile 184 was depleted during reclamation of P-R25-03, its SPGM storage location can now be removed from the Pit Layout and Facilities Map. (BEB)***

Subsoil stockpile 184 has been removed from Section 3.1.5 Pit Layout and Facilities Map.

In addition to the above deficiencies, Falkirk added the 2015 mined out pits to the Pit Layout and Facilities Map in Section 3.1.5 and the Extended Mining Plan Map in Section 3.1.6.

Sincerely,

**THE FALKIRK MINING COMPANY**



Jason Frye  
Environmental Specialist

JF/tv