



October 30, 2015

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

**RE: Revision 35, Renewal #6 Pre-Renewal Review Responses To Permit NAFK-8405**

Dear Mr. Deutsch:

Falkirk submits the following responses to the pre-renewal review items noted in your September 23, 2015 letter to existing Permit NAFK-8405.

**Section 1.1 Introductory, Legal, Financial, Compliance, and Related Information**

***Please provide an updated Consolidated Legal Information Report covering Sections 1.3.1 – Names of Officers, Directors and Share Holders, and Organizational Structure; 1.3.3 – Current Permits and Permit Applications, and 1.1.6 – Schedule of Violations referenced in Permit NAFK-8405 if there are any changes to ownership and control information, the list of current or previous coal mining permits held during the past five years, or the schedule of violation notices in the past three years since the most recent consolidated report dated September 11, 2015. (ZAB)***

The most recent update of the Consolidated Legal Information Report of October 16, 2015 is on file at the Public Service Commission office.

**Section 1.3.2 Names of Other Mines**

***1. Please update Section 1.3.2, Names of Other Mines, if changes have occurred since the approval of Revision 34. (ZAB)***

No changes have occurred since the approval of Revision 34.

- 2 RC-15-710 Filed 10/30/2015 Pages: 8  
Response to pre-renewal review items noted in Sept. 23, 2015 letter  
Falkirk Mining Company
- 2 RC-15-709 Filed 10/30/2015 Pages: 8  
Response to pre-renewal review items noted in Sept. 23, 2015 letter  
Falkirk Mining Company

**Section 1.3.5 Other Licenses and Permits**

- 2. Please update Section 1.3.5, Other Licenses and Permits, if changes have occurred since the approval of Revision 34. (ZAB)***

Please see updated Section 1.3.5, Other Licenses and Permits.

**Section 1.5 Identification of Interests and Rights of Entry**

- 3. If necessary, please update the surface and coal ownership interests listed in Section 1.5.1 and 1.5.2. Any changes to either of these sections should also be reflected on the Surface and Coal Ownership Map in Section 1.5.3. (ZAB/BAJ)***

Please see updated Sections 1.5.1, Permit Area Surface and Coal Interests; 1.5.2, Adjacent Surface and Coal Interests; 1.5.3, Surface and Coal Ownership Map.

- 4. Please update the ownership listing of the Permit Area Surface and Coal Interests of Section 1.5.1, and the Adjacent Surface and Coal Ownership and Leasehold Information of Section 1.5.2. Any changes to these sections should also be reflected in the Surface and Coal Ownership Map of Section 1.5.3. NDCC 38-14.1-14(1)(b) and NDAC 69-05.2-06-01(1)(a). (ZAB/BAJ)***

The introductory page and Certificate of Authenticity of Documents to Section 1.5, Identification of Interests and Rights of Entry, have been updated to reflect the current revision number and date.

The Tract Summary was updated and the following table identifies 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 |
|-----------|---|--|-------------------------------------|------------------------------|-------------------------|------------|---|--|
| 7B        |   | X  |                                     |                              |                         |            |   |  |
| 7C        |   | X  |                                     |                              |                         |            |   |  |
| 8         |   |  |                                     | X                            |                         |            |   |  |
| 9         |   |  |                                     | X                            |                         |            |   |  |
| 11        |   |  |                                     |                              | X                       |            |   |  |
| 23        |   |  |                                     |                              |                         |            | X                                       |  |
| 28        |   |  |                                     |                              |                         |            | X                                       |  |
| 31        | X   | X  |                                     |                              |                         |            |   |  |
| 33        |   |  |                                     | X                            |                         |            |   |  |
| 35        |   | X  |                                     |                              |                         |            |   |  |
| 36        |   | X  |                                     |                              |                         |            |   |  |
| 38        | X   |  |                                     |                              |                         |            | X                                       |  |
| 39        | X   |  |                                     |                              |                         |            |   |  |
| 48        |   |  |                                     |                              |                         |            |   | X  |
| 49        |   |  |                                     |                              |                         |            |   | X  |
| 50        |   |  |                                     |                              |                         |            | X                                       |  |
| 53        |   |  |                                     | X                            |                         |            | X                                       |  |
| 54        |   |  |                                     |                              |                         |            | X                                       |  |
| 55        |   |  |                                     |                              |                         |            | X                                       |  |
| 56        |   |  |                                     |                              |                         |            | X                                       |  |
| 67        | X   |  |                                     |                              |                         |            |   |  |
| 68        | X   |  |                                     |                              |                         |            |   |  |
| 73        |   | X  |                                     |                              |                         |            |   |  |
| 79        | X   |  |                                     |                              |                         |            |   |  |
| 80        | X   |  |                                     |                              |                         |            |   |  |
| 82        |   |  |                                     |                              |                         |            | X                                       |  |
| 83        |   |  |                                     |                              |                         |            | X                                       |  |

Section 1.5.2, Adjacent Surface and Coal Interests, was updated to reflect current ownership and leasehold information.

Section 1.5.3, Surface and Coal Ownership Map, was updated to reflect the changes noted in the section above.

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

- Please review the Fish and Wildlife Management Plan discussion and revise as necessary to address only newly listed threatened, endangered, proposed or candidate species to the Endangered Species Act. Discussion should be commensurate with the probability of occurrence in the permit and adjacent area. (GAW)*

Please see updated Section 2.4.2, Fish and Wildlife Management Plan.

**Section 2.4.3 – Wildlife Monitoring Plan**

- Please review the Wildlife Monitoring Plan and revise Table 1, Federal Threatened, Endangered, and Candidate Species found in North Dakota, to include all currently listed*

*species. Please also review the monitoring plan and update if any monitoring is necessary for newly listed threatened, endangered, proposed or candidate species. Please also review North Dakota's draft 2015 Wildlife Action Plan, which includes species of concern, and revise the monitoring plan if warranted. (GAW)*

Please see updated Section 2.4.3, Wildlife Monitoring Plan.

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

- 7. Please provide information in the permit showing that reestablished ephemeral stream channels have a longitudinal profile and cross section that approximate the pre-mining channel characteristics as required by NDAC 69-05.2-16-06(5). In addition to the modeled flow information provided in PHC, the permit should include the stream profile and length comparisons for some ephemeral drainages with larger watersheds or are steeply sloping such as those identified on the Post-Mine Probable Hydrologic Consequences Map, as watersheds CL-4, CL-13, CL-15, CL-17 and UC-2. (RLK)***

Section 2.6.9 Post-Mine Drainage Stability Analysis has been added to the permit. This section includes maps of the post-mining drainages, watersheds, and profiles. It also includes the results of the drainages' cross-sectional analysis and a data summary table. The pre-mining drainages used for comparison were added to Section 2.6.5a Pre-Mining Watersheds Map – Probable Hydrologic Consequences. Watershed UC-2 was not included in this section since there is no defined drainage in the neither the pre-mine nor the post-mine watershed.

- 8. Please include the model results or similar design information used to analyze the stability of reclaimed drainage ways in accordance with NDAC 69-05.2-16-06(6). The post mine reclaimed drainage ways should be evaluated based on the 100-year/6 hour storm event. Please update the probable hydrologic consequences section to show the calculated flow velocities in the representative portion of each reclaimed drainage way channel, and the expected velocities in the most erosive section of each drainage way. (RLK)***

Section 2.6.9 Post-Mine Drainage Stability Analysis has been added to the permit. This section includes maps of the post-mining drainages, watersheds, and profiles. It also includes the results of the drainages' cross-sectional analysis and a data summary table.

**Section 3.0 Operation Plans**

- 9. Please update the appropriate operations portion of the permit to identify the next 5-year coal removal sub areas and any other changes in the operations, transportation, or surface water management that Falkirk anticipates in the existing permit area over the next 5-year permit term. (BAJ)**

Section 3.1.5 Pit Layout and Facilities Map, Section 3.5.2 Transportation Facilities Map, Section 3.6.1a Total Water Management Plan Map, and Section 3.6.1d Pond Reclamation and Construction Schedule have been updated. No changes are currently anticipated for mining operations in the permit over the next 5-year permit term.

- 10. In Section 3.1.1, Operations Description, please update the estimated number of acres to be disturbed for next permit term if any changes have been made to the mining plan. (ZAB)**

Please see updated Section 3.1.1, Operations Description, it has been updated with the latest estimated acreage disturbed for the next permit term.

- 11. Please review the Cable Belt Conveyor narrative on page 4 of Section 3.1.2, Mining Method Narrative, and update with plans to either build a loading facility north of Highway 200 or remove this feature and reclaim the conveyor corridor. (GAW)**

Please see updated Section 3.1.2, Mining Method Narrative.

- 12. If necessary, please update the Extended Mine Plan Map, Section 3.1.6, to show the current extended mining plans for the Falkirk Mine. (BAJ)**

No changes are necessary on Section 3.1.6, Extended Mining Plan Topographic Map of Mine Phases.

- 13. Please review and update page 1 of Section 3.1.3 to reflect the anticipated production from Permit NAFK-8405 and the total mine production. (BAJ)**

Please see updated page 1 of Section 3.1.3, Estimated and Total Production, it has been updated to reflect the anticipated production from Permit NAFK-8405 and the total mine.

- 14. If necessary, please update Section 3.1.4, List of Major Equipment, to reflect the major equipment currently being used. (NDCC 38-14.1-14(1)(l)) (BAJ)**

Please see updated Section 3.1.4, List of Major Equipment.

- 15. Please update Section 3.1.5, Pit Layout and Facilities Map, for changes that will be made to the mining plan. The map should also be updated to reflect the change of a portion of the overburden storage area in the SW1/4 of Section 1 to SPGM storage and any changes to the field engineered diversions used for water management. (ZAB)**

The SW1/4 of Section 1 in Section 3.1.5 Pit Layout and Facilities Map has been updated.

**Section 4.1.1 Postmining Land Use Narrative**

- 16. Please review the narratives in Section 4.1.1, Post-Mining Land Use Narrative, that discusses mining within 500 feet of occupied dwellings, and update if the surface owner and Falkirk have entered into any agreements to allow mining disturbances within 500 feet of dwellings, or if other surface ownership changes have occurred on these tracts. The Pit Layout and Facilities Map, Section 3.1.5, should not show any surface disturbance within 500 feet of an occupied dwelling until an agreement authorized by NDAC 69-05.2-04-01.4 is actually in place. (GAW)**

Please see updated Section 4.1.1, Post-Mining Land Use Narrative and Section 3.1.5, Pit Layout and Facilities Map. The only change in Section 4.1.1 occurred in the first paragraph on page three. No ownership changes have occurred on these tracts.

- 17. The last sentence of the second paragraph on page 7 of Section 4.1.1 states that gravel removal areas in the NW1/4 of Section 35 will be reseeded to native species upon completion of gravel removal operations and that these areas are depicted on the Post Mining Land Use Map. These sites are not depicted on the postmining land use map as indicated in the narrative and the sites have been reclaimed and reseeded according to the 2014 Annual Mine Map. Please review and revise as necessary to provide clarity. (GAW)**

Please see updated Section 4.1.2, Post-Mining Land Use Map.

- 18. Please review the language discussing the acreage of woodlands that have been disturbed by mining in the first paragraph on page 8 of Section 4.1.1 and update if additional woodlands have been disturbed since 2013. In addition, please indicate if any woodland acreage from Permit NACT-9601 is being replaced in Permit NACT-8405. (GAW)**

No additional woodlands have been disturbed since 2013. No woodland acreage from Permit NAFK-9601 will be replaced in Permit NAFK-8405. Please see the last paragraph on page 5 and the continued paragraph on page 6 of Section 4.1.1 in Permit NAFK-9601 regarding 1.93 acres of woodlands. This language was approved in Revision 13 of Permit NAFK-9601 on March 2010.

**Section 4.1.5 Revegetation Procedures and Establishment**

- 19. Please review the Shelterbelt discussion that begins on page 9 of Section 4.1.5 and revise as necessary if any planting design plans or management plans have changed. Please also include actual as-planted shelterbelt designs of all shelterbelts that have been planted since the design plan language states that species changes may occur just prior to planting. The Reclamation Division is aware that some of the trees in portions of the rows in the plantings north of the wetlands in Section 27 have not established well. Please include a discussion of Falkirk's plans to ensure adequate replacement acreage exist in the permit or what is going to be done to ensure these trees meet the revegetation performance standards requirements in a timely fashion. (GAW)***

Please see updated Section 4.1.5, Revegetation Procedures and Establishment.

- 20. Please review the language regarding the acreage of woodlands that have been disturbed by mining in the last paragraph on page 10 of Section 4.1.5 and update if additional woodlands have been disturbed since 2013. In addition, please mention if any woodland acreage in Permit NACT-9601 is being replaced in Permit NACT-8405. The Reclamation Division recalls that some woodland acreage that was affected by pond construction in the SW1/4 of Section 25 of Permit NACT-9601 was to be replaced elsewhere on the mine. (GAW)***

No additional woodlands have been disturbed since 2013. No woodland acreage from Permit NAFK-9601 will be replaced in Permit NAFK-8405. Please see the last paragraph on page 5 and the continued paragraph on page 6 of Section 4.1.1 in Permit NAFK-9601 regarding 1.93 acres of woodlands. This language was approved in Revision 13 of Permit NAFK-9601 on March 2010.

**Section 4.2 Reclamation—General**

- 21. Please update the Reclamation Schedule in Section 4.2.2 and the Grading Sequence Map in Section 4.2.3 if changes are made to the mining plan. (ZAB)***

Please see updated Section 4.2.3, Grading Sequence Map. No changes made to Section 4.2.2, Reclamation Schedule.

**Section 4.2.6 – Post-Mining Topography Map Generation**

***The first paragraph in Section 4.2.6 includes a brief description of Natural Regrade software that will be used a method to design drainages in post-mining topography and we***

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*encourage Falkirk to continue to pursue the use of the software. Please include additional information on the settings or design inputs that will be used in Natural Regrade to design drainages in permit (in this section or other section as you may choose). Some of the settings should be based on observations and measurements of the local landscapes such as the settings for the distance between connecting channels and distance from ridgeline to channel head. The information on the how these and similar settings have or will be determined should be included in the permit. (RLK)*

Please see updated Section 4.2.6, Post-Mining Topography Map Generation.

Sincerely,

**THE FALKIRK MINING COMPANY**

A handwritten signature in blue ink that reads "Jason Frye". The signature is written in a cursive style with a large initial "J" and "F".

Jason Frye  
Environmental Specialist

JF/tv