



Public Service Commission

State of North Dakota

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August 1, 2018

Mr. Jason Frye
Environmental Specialist
Falkirk Mining Company
P.O. Box 1087
Underwood, ND 58576-1087

Dear Mr. Frye:

The Reclamation Division has conducted a technical review of Falkirk Mining Company's application for Revision No. 38 to Surface Coal Mining Permit NAFK-8705 at the Falkirk Mine. The following items must be satisfactorily addressed before we will recommend Commission action on the revision application.

Section 3.1 – Operations Plan - General

1. Please depict the location of pond P-W06-03 on the Pit Layout and Facilities Map, Section 3.1.5. (RLK)

Section 4.1 – Post-Mining Land Use and Revegetation

2. Please consider revising the narrative pertaining to Section 26, T146N, R83W on pages 11 and 12 of the Post-Mining Land Use Narrative (Section 4.1.1) to briefly state that Revision No. 38 returned the fish and wildlife habitat and industrial land uses to cropland. This may be helpful to readers seeking information specific to land uses for Section 26, without having to scroll back through the narrative to realize the land use was changed back to cropland as part of Revision No. 38. (RLK)
3. Please update the Revegetation Success Standards Map (Section 4.1.6a) to identify that post-mining cropland is now proposed for the land in the S1/2S1/2S1/2 of Section 23 and the N1/2 of Section 26. Also, please update the title for the Section 26 Unadjusted Cropland Yield Standard to indicate the standard is for the S1/2 of Section 26, or recalculate the standard for all of Section 26 as appropriate. (RLK)

Section 4.2 – Reclamation – General

4. The fourth bullet point provided in the Temporary Mining Cessation Plan narrative in Section 4.2.1b needs to be updated to explain why the pit bottom has been lined with a minimum of 24

inches of overburden material to prevent ground water contamination. Details regarding the presence, thickness, total volume and chemical stability/instability or inert nature of the bottom ash remaining in the pit needs to be addressed, in particular if this material comes into contact with ground water. In essence, the requested information, along with a technical assessment, will be your evaluation of the ground water Probable Hydrologic Consequences regarding the ash pit and the presence of the bottom ash placed in a potential saturated zone after pit cessation and final reclamation. The fact that you have stated the overburden liner was placed to prevent ground water contamination compels an explanation of the statement and subsequent PHC evaluation. (BEB/PJR)

5. The fifth bullet point in Section 4.2.1b states that after the 5-year timeframe, Falkirk will measure water level elevations quarterly and water quality sampling will be done once per year. Please update this bullet point statement to indicate the Coal Creek Station monitoring wells will be incorporated into Falkirk's approved ground water monitoring plan and the collected data will be submitted to the Public Service Commission. (BEB)
6. Please revise Section 4.2.1b, Temporary Mining Cessation Plan, to include narrative and a map that clarifies surface water management of the watershed(s) affected by the cessation pit in Section 26. Currently, it is not entirely clear how runoff from reclaimed lands south of the cessation pit will be affected or if runoff will be diverted around the pit and Variance Area T during the cessation period. Please also revise the Probable Hydrologic Consequences narrative on page 2 of Section 4.2.1b to include meaningful analysis of the probable hydrologic consequences of Variance Area T and the cessation pit. NDAC 69-05.2-16-01. (GAW)
7. A portion of the Section 26 Ash Pit Contingency Plan described in Section 4.2.1d appears to be a quasi-contradiction to the ash pit preparatory work that Falkirk conducted in February of this year regarding the remaining bottom ash in the pit. A minimum 2-foot thick layer of low permeability overburden/clay liner was placed over the bottom ash to prevent potential "ground water contamination"; however, the contingency plan entails the construction of proposed wetland R-26-02 directly on top of the ash disposal area. The presence of the contingency plan wetland will likely promote focused ground water recharge to the same area where your clay liner preparatory work was conducted with the specific intention of preventing ground water contamination. It would seem logical that a contingency plan would make every effort to construct a postmine landscape with positive drainage routed away from the ash pit similar to post-closure construction required for other waste disposal pits, particularly if ground water contamination is deemed a potential concern. If, after review and consideration your intention is to retain the wetland construction plan for the contingency pit, please provide a rational explanation for construction of the wetland at that location other than a lack of adequate material volume required to fill the pit. Any other information that you could provide to justify this plan, e.g. ND Department of Health corroboration regarding the inert nature of the bottom ash, or hydraulic conductivity assessment of the overburden to be placed below the wetland, etc. would be supportive of the contingency plan. We have been provided no evidence that power plant bottom ash is a ground water or surface water contaminant. However, if the ND Department of Health deems bottom ash to be a contaminant or potential contaminant, Falkirk may have to consider removing the material from the pit and providing a proper disposal plan of the ash prior to backfilling and final reclamation as part of the proposed contingency plan, or provide another viable option. (BEB)

8. The Contingency Plan Map in Section 4.2.1e depicts and labels a remaining SS/OB stockpile in the NW1/4 of Section 26. Since this map represents the contingent postmining environment and a return to agricultural land use, the material located within this pile should be incorporated into the postmine topography and removed from the map. Please review and update as necessary. (PJR)
9. Please include additional hydrologic consequences narrative in Section 4.2.1d to indicate why the contingency plan would be expected to be similar to the Probable Hydrologic Consequences (PHC) as described in Section 2.6.5 for the intended post-mining topography. The Section 26 Ash Pit Contingency Plan partly eludes to this point in the narrative by describing the 38-acre reduction in the contributing watershed for reclaimed wetland R-26-01. The contingency plan should also identify the drainage areas described in the Post-Mine PHC (Section 2.6.5) that will receive that corresponding increase in the contributing area. (RLK)
10. Please show the watershed boundaries on the Section 26 Ash Pit Contingency Plan Map (Section 4.2.1e) for the area affected by the contingency topography proposed for Section 26. The watershed boundary line segments will help illustrate the difference between the contingency plan and the intended post-mine topography lines shown on the Post-Mine PHC Map (Section 2.6.5b). (RLK)

Section 5.2 – Post-Mining Wetlands

11. The Contingency Plan Wetland Design for wetland R-26-02 was added to Section 4.2.1f. Please add a copy of this design to the Wetland Design Details in Section 5.2.2a. (PJR)

Enclosed are copies of the ND Department of Health and ND State Water Commission's advisory review letters for the revision application. The last date of publication for this revision application was July 5, 2018 and we ask that you submit the Affidavit of Publication if it has not been sent prior to your receipt of this letter.

If you have any questions, please contact this office.

Sincerely,



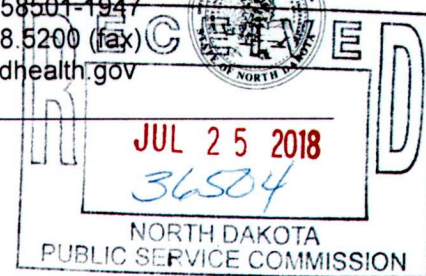
Dean K. Moos
Director
Reclamation Division

Enclosures



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



July 24, 2018

Mr. Dean Moos
Reclamation Division
Public Service Commission
600 East Boulevard Avenue
Bismarck, ND 58505

RE: Revision 38 to Permit NAFK-8705

Dear Mr. Moos:

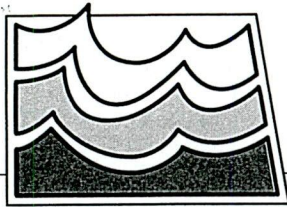
We have reviewed Falkirk Mining Company's application for revision number 38 to Surface Coal Mining Permit NAFK-8705. We have no objections to the revision that contains updated reclamation plans, a detailed plan for a mining pit cessation and a contingency reclamation plan for the former special waste landfill (ash disposal pit) and surrounding lands in portions of Sections 23 and 26, T146N, R83W, McLean County. In addition, we have no objections to the updated compliance information, environmental resource information, and operations and reclamation plans.

At this time, the department has no further comments regarding this revision.

Sincerely,

Dallas Grossman
Environmental Engineer
Division of Water Quality

c. Diana Trussell – NDDoH, Div. of Waste Management



RECORDED

Date 7-23-18

File SWC-Asp-ndocry-100-7-18-18(36500)

North Dakota State Water Commission

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Date: 7/23/18

Action: Bruce B, Bruce J, Randi

Info. Only: _____

Info & File: Rev. 38, Permit NAFK-8705



July 18, 2018

Darrell Nitschke, Executive Secretary
ND Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

Dear Mr. Nitschke:

This is in response to your request for a review of the environmental impacts associated with the application for the Revision No. 38 to Surface Coal Mining Permit No. NAFK-8705 at the Falkirk Mine.

The proposed project has been reviewed by State Water Commission staff, and the following comments are provided:

- Through the National Flood Insurance Program, a floodplain development permit is required for all development that takes place within a Special Flood Hazard Area, as identified by FEMA. Please work with the local floodplain administrator(s) for additional information and permit requirements. The floodplain administrator for McLean County is Les Korgel, 701-462-8541, lkorgel@nd.gov.
- The Office of the State Engineer (OSE) Engineering and Permitting Section reviewed the project route and determined that the project route traverses over or through surface water resources.

According to the cover letter sent with the application for Revision No. 38 to Surface Coal Mining Permit No. NAFK-8705 at the Falkirk Mine, the revision addresses a new reclamation plan and land use change to parts of Section 23 and 26, T146N, R83W, McLean County. The revision revises the permit's environmental resource information, operations and reclamation plans. Only the project area described in the cover letter sent with the application (Sections 23 and 26, T146N, R83W, McLean County), was reviewed.

According to the application it appears there are proposed post-mining wetlands (retention ponds), located in the S 1/2 S 1/2 S 1/2 of Section 23 and N 1/2 of Section 26, that will be constructed or modified. **R-26-01, total storage volume 29.3 ac-ft and R-26-02 (contingency pond), total storage volume 29.01 ac-ft.**

These retention ponds are considered to act as dams according to N.D.A.C. § 89-08-01, given they act as a barrier constructed across a watercourse, or an area that drains naturally, to impound or attenuate the flow of water. The construction of a dam capable of retaining, obstructing, or diverting more than fifty acre-feet of water, or twenty-five acre-feet of water for a medium-hazard or high-hazard dam, would require a construction permit according to N.D.C.C § 61-16.1-38.

According to the application it appears there are wetlands (i.e. ponds, sloughs, lakes, or any series thereof) that are being drained with a contributing watershed area greater than 80 acres, but according to N.D.A.C § 89-02-01-05(2.f) they likely do not require a drainage permit through the OSE Engineering and Permitting Section.

The OSE requests to be notified regarding the proposed project's impacts, if any, to water resources such as watercourses (i.e. streams or rivers), agricultural drains, and wetlands (i.e. ponds, sloughs, lakes, or any series thereof) as any alterations, modifications, improvements, or impacts to those water resources may require a construction permit(s) from the OSE. If you have questions for the Engineering and Permitting Section, please contact us at 701-328-4288.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4967.

Sincerely,

A handwritten signature in black ink, appearing to read "Jared Huibregtse". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

Jared Huibregtse
Water Resource Planner IV

JH:dm/1570