

PUBLIC SERVICE COMMISSION
Reclamation Division

Memorandum

TO: Commissioners Christmann, Kroshus and Fedorchak
Illona Jeffcoat-Sacco and John Schuh
Darrell Nitschke – Executive Secretary

FROM: *DKM* *ZAB* *BCB*
Dean Moos, Zanna Brinkman and Bruce Beechie

DATE: November 13, 2018

SUBJECT: Approval of Revision No. 38 to Permit No. NAFK-8705 held by Falkirk Mining Company, Case No. RC-18-109

On April 2, 2018, Falkirk Mining Company filed the application for Revision No. 38 to Permit No. NAFK-8705. This revision changes the postmining land use of the former Section 26 ash disposal facility from industrial and fish and wildlife habitat to cropland, updates reclamation plans for the area, and provides a detailed plan for a mining pit cessation and contingency reclamation plan for the former special waste landfill and adjacent land in portions of Sections 23 and 26, T146N, R83W, McLean County, North Dakota. Introductory, legal, financial, compliance information, environmental resource information, and operations and reclamation plans were updated with this revision. The Reclamation Division has completed its review of this revision application and respectfully recommends it be approved.

Following the completion of mining in 1994, a portion of the mined area in the N½ of Section 26 was developed as a flyash disposal facility for use by Great River Energy's (GRE) Coal Creek Station. Revision No. 24 to Permit NAFK-8705 was approved on January 28, 2004 and changed the postmining land use of the disposal area and adjacent area to industrial and fish and wildlife habitat. The disposal facility consisted of the disposal pit, soil and overburden stockpiles necessary for the closure and reclamation of the disposal facility, access roads, and sedimentation ponds. The adjacent area had a postmine land use of fish and wildlife habitat in order to provide a buffer zone between the disposal facility and the adjacent agricultural land. The ash disposal facility was constructed; however, only very limited ash disposal took place because GRE subsequently developed a commercial market for their flyash as a cement additive, negating the need for flyash disposal.

Revision No. 38 proposes to changes the postmine land use of the former ash disposal facility and adjacent area located in the S½S½S½ of Section 23 and N½ of Section 26 from industrial land use (170.2 acres) and fish and wildlife habitat land use (217.2 acres) to agricultural land use, primarily cropland. The total area affected by the land use change is 387.4 acres and it is all owned by GRE. The area affected by the land use change is depicted on Figure 1.

Revision 38 also proposes a temporary cessation of operations (i.e., mining and reclamation delay) for the former ash disposal pit that encompasses approximately 45 acres. Mining was completed in the cessation pit area in 1994 and Falkirk plans to resume mining in this area again in 2031. Once mining resumes to the north, overburden/spoil from the mining area will be used to fill and reclaim the ash disposal/cessation pit. NDAC 69-05.2-13-10 allows for temporary cessation of mining operations provided that certain requirements are met. Falkirk has fulfilled the necessary requirements to allow for the temporary cessation of mining operations. Revision No. 38 also provides a contingency reclamation plan in the permit in the unlikely event that mining does not resume in this area. The contingency plan provides maps, hydrologic modeling data, wetland design details, narrative and related reclamation information indicating that the contingency plan, if utilized, will provide a post-mining landscape that is stable, agriculturally productive and will function similar to other approved postmining landscapes at Falkirk Mine.

As previously indicated, the Section 26 ash pit was never fully utilized for its intended purpose. The floor of the ash pit contains several feet of inert bottom ash totaling about 93,000 cubic yards that will remain in the pit after reclamation. Within the past year, a 2-foot thick layer of clay was placed on top of the bottom ash by Falkirk to serve as a low permeability liner to minimize ground water contact with the remaining bottom ash. In an October 4, 2018 letter to Falkirk, the North Dakota Department of Health's Division of Waste Management (NDDH) stated that bottom ash from coal fired boilers is classified as an inert waste per NDAC 33-20-01.1-03(26), meaning that the bottom ash will not generally contaminate water or form a contaminated leachate. In addition, private contractors for GRE removed several thousand tons of previously disposed power plant flyash from the Section 26 ash pit, hauled that material back to GRE's Coal Creek Station for processing, and the flyash was eventually sold as a cement additive. No flyash remains in the Section 26 ash pit.

GRE has been monitoring ground water levels and ground water quality around the perimeter of the Section 26 ash pit with five monitoring wells for many years and submitting that data to the NDDH. After approval of Revision No. 38, GRE will continue monitoring water levels and water quality from those wells for another five years. After the five-year period has expired, Falkirk will assume ownership of those wells and they will be added to their PSC approved ground water monitoring plan.

Falkirk submitted the affidavits of publication for the required newspaper notice for this significant permit revision. We notified the appropriate agencies, affected landowners and the advisory committee members. We received no comments or objections to this revision application. No bond adjustment was necessary as a result of this revision. Surety, self and collateral bonds that total \$88,700,000 that covers this and Permits NAFK-8405 and NAFK-9503 at the Falkirk Mine is sufficient for the proposed operations in Permit NAFK-8705 and for continuing operations within the other permit areas.

Attached for your consideration are the proposed motion, revision approval form, and newspaper notice.

Figure 1.
 Plan view of the mining pit cessation area and land use change area
 Section 1.2.4r of Revision No. 38 to Permit NAFK-8705.

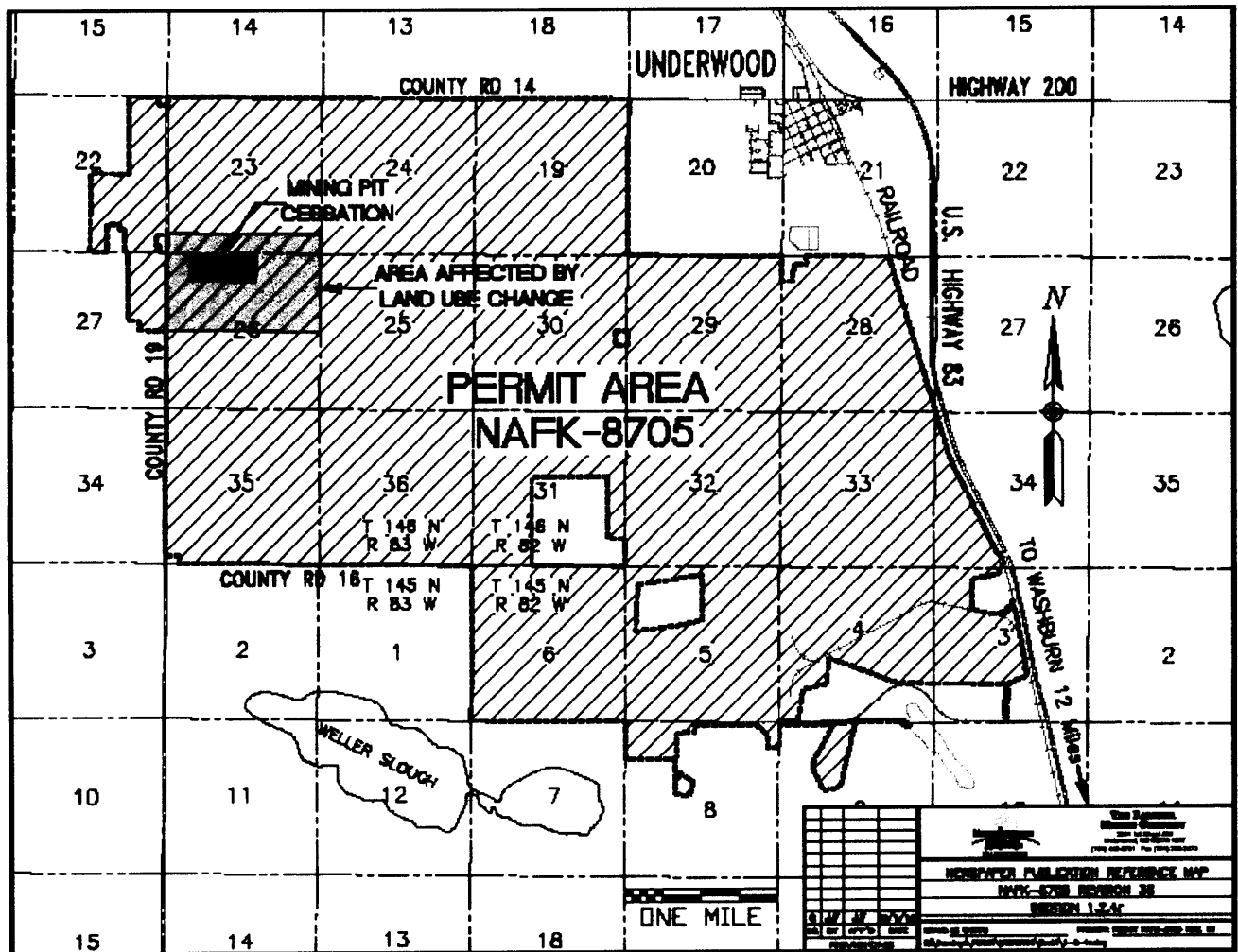


Figure 2.
Pit layout of the Section 26 cessation pit area showing years of mining
Section 3.1.5 of Rev. 38 to Permit NAFK-8705

