

PUBLIC SERVICE COMMISSION

Reclamation Division

Memorandum

TO: Commissioners Kalk, Christmann and Fedorchak
FROM: *gw* *DKM* *JJ*
Guy Welch, Dean Moos and Jim Deutsch
DATE: November 26, 2013
SUBJECT: Bond Release No. 4 to Surface Coal Mining Permit NAFK-8705 held by the Falkirk Mining Company, Case No. RC-12-792

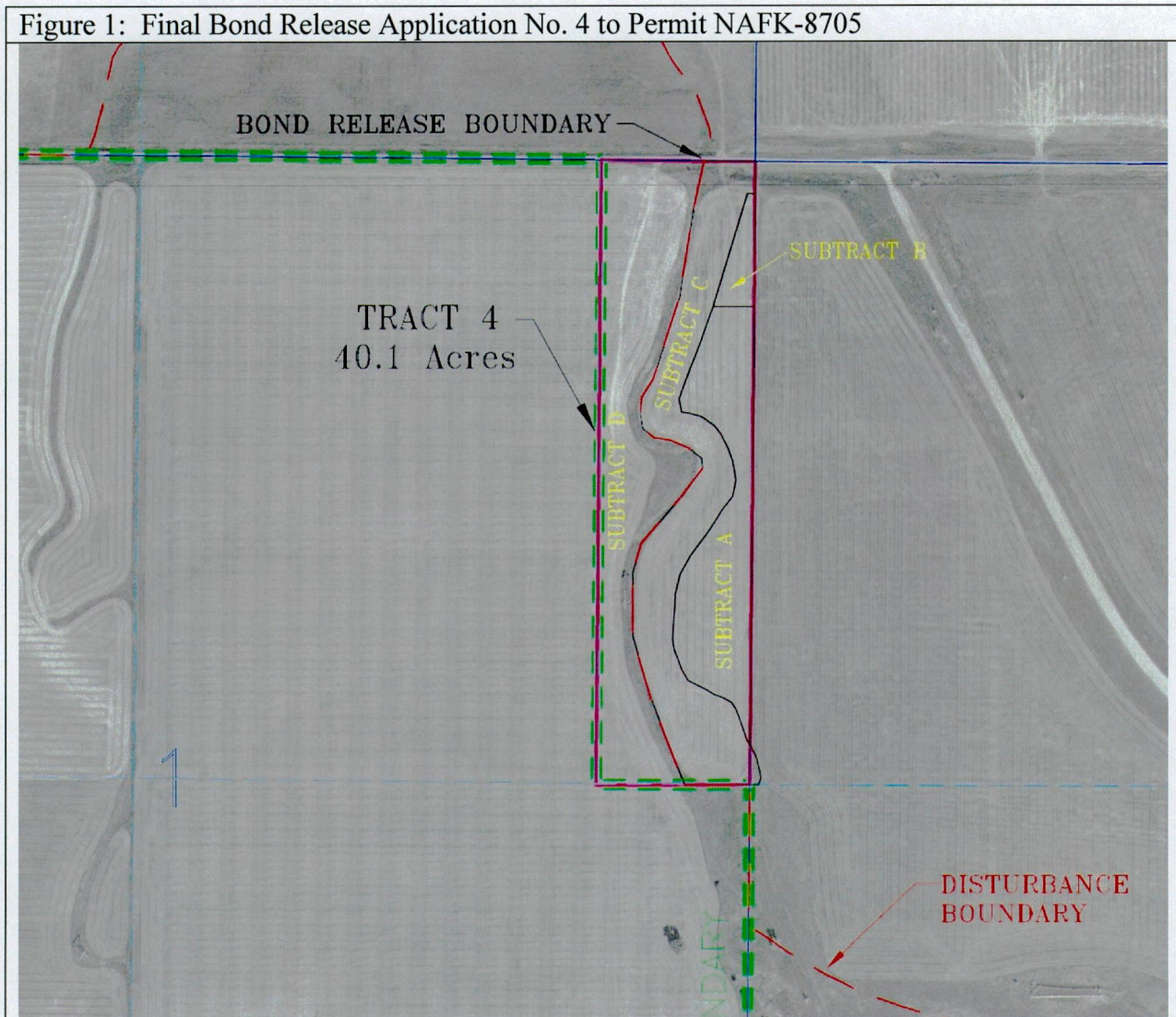
Summary

On October 31, 2012, The Falkirk Mining Company filed the application for Bond Release Application No. 4 to Surface Coal Mining Permit NAFK-8705 to request release of all remaining reclamation liabilities on 40.1 acres of land at the Falkirk Mine. This bond release request contains 20.3 acres of reclaimed cropland, 2.7 acres of reclaimed public roads, and 17.1 acres of undisturbed land. The land included in this bond release is subject to the current reclamation law and rules and Falkirk has demonstrated that all applicable bond release standards have been met. The Reclamation Division recommends approval of this final bond release application based on the findings discussed below.

Discussion

Bond Release No. 4 to Permit NAFK-8705 contains 40.1 acres of land located in a portion of the E½ of the NE¼ of Section 1, T145N, R83W, McLean County. This land is owned by Kenneth and Wanda Pfaff and the bond release area consists of 20.3 acres of reclaimed cropland, 2.7 acres associated with County Road 16 and section line right-of-way, and 17.1 acres of undisturbed cropland. Mining disturbance was initiated on this tract in 1979 and coal removal was completed in 1981. A portion of the land, Tract C, contained a sedimentation pond and its associated diversion that were used for surface water management. The area associated with the pond and diversion was reclaimed in 2001. The areas actually mined for coal, Tracts A and B, were reclaimed in 1983. Twelve inches of topsoil and 48 inches of subsoil were respread on Tracts A and B while 10 inches of topsoil was respread on areas affected by the pond and diversion, Tract C. A pre-cropland seed mixture consisting of perennial grasses and alfalfa was initially seeded on reclaimed cropland areas and remained in place for a number of years. The reclaimed cropland was then used for annual crop production starting in 2004. Tract D consists of the undisturbed acreage that is part of this bond release.

Figure 1 that follows depicts the location of the various tracts included in Bond Release No. 4.



Tracts A and B (totaling 10.1 acres) were previously granted of stage 1 (backfilling and grading) and stage 2 (soil respreading) partial bond release as part of Bond Release No. 1 to Permit NAFK-8104. (Lands in Bond Release No. 4 were originally permitted under NAFK-8104 but in 1989 they were re-permitted with Permit NAFK-8705 that consolidated several permits at the Falkirk Mine.) Therefore, only third (vegetation establishment) and fourth (final – revegetation success standards met) stages are being requested for Tracts A and B. All four stages of bond release are being requested on Tract C (12.9 acres). Tract D contains the undisturbed land included in Bond Release No. 4.

Falkirk has demonstrated that the revegetation performance standards have been achieved for the reclaimed cropland included in this bond release application as discussed below and described in the bond release application. Under revegetation success standards in PSC rules, mine operators must demonstrate reclaimed cropland yields are equal to or greater than the approved standard with ninety percent statistical confidence for any two years after year six of the minimum 10-

year revegetation responsibility period. The revegetation responsibility period begins when the last area was initially seeded. The last seeding to initiate the responsibility period on areas in Bond Release No. 4 occurred in 2001. Therefore, cropland yield data beginning in year 2007 can be used to demonstrate revegetation success for final bond release and all areas in this bond release did not become eligible for final bond release until 2011.

Reclaimed Cropland

The reclaimed cropland has been managed with annually seeded crops since 2004. The cropland productivity standard is based on the productivity potential of the pre-mine soils that were present prior to mining. The unadjusted yield standard was climatically adjusted through the use of annual county yield data published by National Agricultural Statistics Services in conjunction with average county yield calculated using data from the McLean County Soil Survey published by USDA's Natural Resource Conservation Service. Falkirk included data in the bond release application demonstrating that the actual yields exceeded the climatically adjusted standard for two years beginning no sooner than year six of the responsibility period. Reclamation success was demonstrated by the whole field harvest of reclaimed Tracts A, B and C, which are essentially a separate and distinct field from the undisturbed portion of the bond release area. The adjusted yield standards and actual yield values used to demonstrate reclamation success are shown in the table below.

Bond Release No. 4 to NAFK-8705			
Sample Year	Crop Grown	Adjusted Yield Standard	Reclaimed Actual Yield
2009	Wheat	55 bushels/acre	59.5 bushels/acre
2010	Wheat	53 bushels/acre	67 bushels/acre

The bond release application also contains correspondence from the McLean County Superintendent of Highways, Ronald F. Wagner, indicating the County's satisfaction with the reconstructed County Road 16 located on the north side of the tract.

Wildlife use of the reclaimed cropland is discussed in the bond release application and is included in Falkirk's biennial wildlife report. Falkirk completed a surface and ground water postmine hydrologic assessment for this bond release area. No pre-mine water supplies were affected by mining related activities and the Reclamation Division concludes that there was not material damage to the hydrologic balance off-permit due to the mining and reclamation activities on these tracts. Existing ground water monitoring wells located on the east edge of the bond release tract will be retained for continued observations as part of the mine-wide ground water monitoring plan.

General Information

Since the bond release application wasn't submitted until late 2012, the formal bond release inspection was postponed until June 25, 2013 when field and weather conditions were more suitable to visually evaluate the area. The surface owners, McLean County Commissioners and several state and federal agency representatives were invited to participate in the final bond

release inspection. The surface owner, Kenneth Pfaff, and his son Steven, and OSM Casper Field Office representative Harv Gloe, participated in the inspection of this property. The only concern identified on this reclaimed land was the presence of three small settling features that were ponding water. Mr. Ken Pfaff did not express any concerns regarding the reclamation of this property and he also sent us a follow-up letter indicating that he did not want us to require Falkirk to repair these small features.

During the inspection staff noted the reclaimed cropland in the Bond Release No. 4 tract was supporting a thick stand of wheat. There were no apparent differences between the various times the disturbed areas were reclaimed, nor was it possible to distinguish the boundary between reclaimed and undisturbed land in the field. The wheat crop looked healthy and not deficient of nutrients or lacking oxygen due to overly wet soils. The reclaimed cropland field borders an undisturbed grassed waterway and this waterway was functioning as intended. A hand held Dickey-john soil compaction tester was used to check for soil compaction on the reclaimed tract and the adjacent undisturbed land. No significant compaction was noted as the readings were similar to those from the undisturbed tract. The entire soil profile was moist, at or near field capacity. The reclaimed road associated with the bond release appeared to be in good condition and functioning as intended.

The public notice for this bond release application was published in the official county newspaper, the McLean County Independent, as well as the Bismarck Tribune, Underwood News and Washburn Leader-News for four consecutive weeks, June 13, 20, 27 and July 3, 2013. No objections, concerns or objections were received regarding this bond release application. The Reclamation Division requested written concurrence from the surface owner regarding the three small features that were ponding water on reclaimed cropland and the surface owner, as noted above, Kenneth Pfaff responded with a written letter dated July 22, 2013 requesting that we not require Falkirk to repair these features. No other issues were identified during the bond release inspection that required additional follow-up or that would prevent final bond release approval.

The disturbed areas were soil probed to verify topsoil and subsoil respread thicknesses before first and second stage bond release was previously approved for part of the bond release tract and they were found to be acceptable. The topsoil thickness on Tract C was checked at several locations during the bond release inspection and found to be acceptable.

Falkirk did not request any reduction in the bond amount since this area is currently covered by a worst-case reclamation condition that still exists at the mine. This area is part of a consolidated bond area that includes most permits at the Falkirk Mine. If Bond Release No. 4 to Permit NAFK-8705 is approved, Falkirk will be released of all remaining reclamation liabilities on the 40.1 acres. The bond release will become effective January 6, 2014, unless a formal hearing is requested. Our jurisdiction over the 40.1 acres will end once the release becomes effective.

Attached are a motion and award form for consideration at the December 4, 2013 Commission meeting.