

**Public Service Commission
Reclamation Division**

Memorandum

To: Commissioners Clark, Kalk, and Cramer
Darrell Nitschke, Executive Secretary
Illona Jeffcoat-Sacco

From: *JG DKM*
Jim Deutsch, Dean Moos and Bill Gunnerson *BG*

Date: March 14, 2012

Subject: Bond Release No. 8 (final) to Permit BCGH-8204 at the Glenharold Mine,
Case No. RC-11-31

Summary

On January 12, 2011, Basin Cooperative Services filed Bond Release Application No. 8 to Surface Coal Mining Permit BCGH-8204 at the former Glenharold Mine near Stanton. The application requests final bond release on 325 acres of land, of which 256 acres were disturbed and reclaimed, for industrial use. Most of this acreage will be used to expand the existing Leland Olds Power Station coal combustion waste landfill that adjoins this tract. Bond Release No. 8 was submitted concurrently with Bond Release No. 7 for the remaining permitted acreage at the Glenharold Mine. The acreage consists of Tract 1 reclaimed as native grassland that includes 21.3 acres of reclaimed woodlands, but the Commission approved a post-mine land use change from native grassland to industrial land use in 2010 to accommodate expansion of the adjacent Leland Olds Station coal combustion waste landfill. While most of the acreage is subject to the current reclamation law that was enacted in 1979, the bond release application contains a small acreage that was mined under North Dakota's 1973 reclamation law. The Reclamation Division has conducted a detailed review of the bond release application, inspected the reclamation tract, and recommends final bond release approval for the requested acreage.

Discussion

Bond Release No. 8 to Permit BCGH-8204 pertains to 325 acres in Section 31, T144N, R84W, Mercer County. Basin Cooperative Services owns the acreage included in the bond release application. Attached Figure 1 shows the location of Bond Release No. 8 acreage (Tract 1) in relation to the remaining permitted acreage of Permit BCGH-8204 that has been submitted for final bond release with Bond Release No. 7. Attached Figure 2 is large scale view of Tract 1 in Section 31 that depicts the mining disturbance boundary, reclaimed native grassland, ponds and wetlands, reclaimed woodlands, and the adjacent Leland Olds Station coal combustion waste landfill.

Some of the acreage included in this bond release application was initially permitted and disturbed by Consolidation Coal Company under North Dakota's early reclamation laws. Basin Cooperative Services bought the Glenharold Mine from Consolidated Coal Company and re-permitted this acreage and other lands as part of Permit Application BCGH-8204 that was approved in December 1983. It should be noted that areas mined under the early laws and then used in support of later mining had to be re-permitted and are subject to the applicable requirements of the current North Dakota reclamation law that was enacted in 1979.

Mining in bond release Tract 1 occurred from 1972 through 1982 but temporarily ceased from 1973 to early 1979. Active coal mining ceased at the Glenharold Mine in 1993. Grading, soil respreading and seeding of native grass warm and cool season species in the bond release tract occurred as mining progressed. Soil respreading began in 1984 and was completed in 1996, at which time all remaining areas were seeded with native grass species. Reclaimed woodland areas that total 21.3 acres were planted in 1986, 1987, and 1988. A portion of the reclaimed woodland acreage will be disturbed during the proposed landfill expansion. About four inches of topsoil and seven inches of subsoil were respread on about 152 acres followed by seeding in 1984 and 1987. The soil respread thickness was adjusted in the 1996 seeding area to 3.2 inches of topsoil and 10.4 inches of subsoil based on the remaining soil inventory. Limited or no soil was available for respreading on the areas disturbed under the 1973 reclamation law; however, a few inches of topsoil and subsoil were respread on these areas that were used in support of mining after the 1979 law was enacted. All available topsoil and subsoil was salvaged and respread on areas disturbed after July 1, 1975. The actual soil respread thicknesses were verified by the Reclamation Division on October 8 and 14, 2010 with the completion of 29 soil probe observations in Tract 1. The observed topsoil and subsoil respread thicknesses were within the acceptable range of variations at all soil probe locations.

Although Tract 1 was initially reclaimed for post-mining land use of native grassland, the Commission approved a post-mine land use change from native grassland to industrial land use with Revision 36 on November 24, 2010 to accommodate expansion of the adjacent Leland Olds Station coal combustion waste landfill. Basin Electric Power Cooperative submitted an application to the North Dakota Department of Health (NDDH) on December 8, 2009 to expand its existing landfill permit area by adding the 325 acres that are being requested for final bond release at this time. The expanded area was requested to accommodate increased coal combustion waste generated by Leland Olds Station's new air pollution control system. The NDDH renewed the landfill permit on December 8, 2010 to include the expanded area with numerous specific conditions relating to landfill design, restrictions for unsuitable waste disposal areas, ground water monitoring, and completion of a soil survey for the expanded area. Mercer County also approved a conditional land use permit for waste disposal on the area included in Bond Release No. 8.

Final (total) bond release is being requested for Tract 1 as an industrial use. Policy Memo No. 15 to Mine Operators lays out the Commission's policy for bond releasing mined lands that are used for long-term waste disposal activities. As noted above, Basin Electric has amended its landfill permit to include this area, Mercer County has issued a conditional use permit, and this area will become part of an existing waste disposal facility that is currently in use.

There are no specific revegetation standards that apply to reclaimed lands that will be developed to an industrial land use. However, industrial lands must have an adequate vegetative ground cover to control erosion and documentation must be provided to show that the areas are not contributing suspended solids to stream flow or runoff outside the permit area. The technical standard for evaluating ground cover is based on USDA Agricultural Research Service research conducted on reclaimed grassland in North Dakota indicating that erosion from reclaimed grasslands is similar to that of undisturbed native grassland when ground cover is 73 percent or greater, or when total cover is 83 percent or greater. The industrial land use revegetation performance standards in Tract 1 are 73 percent ground cover (live plus litter) for grassland and 83 percent total cover (areal plus herbaceous ground cover) for woodland. Vegetation sampling data submitted with the bond release application demonstrates that the vegetative ground cover standard has been met.

As shown on attached Figure 2, the water resources in Tract 1 include former sedimentation Pond 31-3H, Ponds 1 and 2, and Wetlands A and B. Pond 31-3H will be used to control sediment from the disturbed

landfill area, while Ponds 1 and 2, and Wetlands A and B will retain runoff from undisturbed portions of the landfill permit area.

Formal final bond release inspections were held on September 14 and 15, 2011 for Bond Release Nos. 7 and 8. Attending the inspections were Dave Nison and Shad Erdmann, representing Basin Cooperative Services, and Reclamation Division staff members Dean Moos, Mike Berg, Bill Gunnerson, Bruce Beechie, Randy Kowalski, and Guy Welch. Frank Bitterman of the Mercer County Commission also participated in the inspections. The State Soil Conservation Committee, ND Department of Health, and the Office of Surface Mining were also invited but did not participate in the inspections. The bond release inspection was conducted over a two day period because of the large acreage requested for bond release. There were no concerns identified during the inspection for Tract 1 of Bond Release No. 8.

The Final Bond Release Hydrology Assessment Information added to the permit with Revision 29 states that none of the pre-mine springs in or adjacent to lands included in the final bond release application were affected by mining activities and no stockponds were destroyed by mining activities. Likewise, no domestic or stock water wells were destroyed by mining. The hydrologic assessment concluded that Basin Cooperative Services did not affect any pre-mine water supply wells and no adverse effects were observed outside of the permit area in terms of groundwater quality or flow and recharge rates. The post-mining hydrologic and wildlife assessments that were added to the permit demonstrate the impacts to these resources have been minimal.

A final bond release public notice was published in the Hazen Star for four consecutive weeks from September 1 through September 22, 2011. No objections to this bond release were received.

The acreage remaining in this permit is currently bonded with collateral bond CB-8204-01 for \$541,874.91 and self-bond SB-8204-01 for \$4,876,874.24. Basin Cooperative Services will be released from all reclamation liabilities on the 325 acres included in this bond release application and will be allowed to reduce collateral and self-bonds by a total of \$801,688.23 if the bond release is approved at the March 21, 2012 Commission meeting with an effective date of April 20, 2012. As noted in the memo recommending approval of Bond Release No. 7 for Permit BCGH-8204, all the remaining permitted acreage at the Glenharold Mine will be released and the Commission's jurisdiction over this mine will end once Bond Releases 7 and 8 become effective.

Attached are the motion and award forms for consideration at the March 21, 2012 Commission meeting.

Attachments

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