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November 26, 2013

Mr. James R. Deutsch
Director, Reclamation Division
Public Service Commission
600 E Boulevard Ave, Dept 408
Bismarck, ND 58505-0480

Re: Bond Release Application No. 7 (BR-7) - KRGC-8101
Response to Deficiencies identified by PSC in letter dated October 9, 2013

Dear Mr. Deutsch:

Pursuant to your Agency's letter dated October 9, 2013 concerning Knife River Corporation's Bond Release Application No. 7 (BR-7) regarding permit KRGC-8101, Knife River offers the following responses, highlighted in yellow, pertaining to each identified deficiency.

Attachment 1 – Permit Area Map

1. Since Tract 3 is located within Section 26, please label Section 26 on the permit area map. (BEB/ZAB)

Section 26 has been labeled as requested.

2. The permit area map labels Tract 1 that is located in Section 29 as containing 326.4 acres and other information in the application lists Tract 1 as containing 559.2 acres. Also, the map labels Tract 2 that is located in Section 33 as containing 59.6 acres (53.7 + 5.9) on the map and other information in the application lists Tract 2 as containing 81.7 acres. Please resolve the acreage discrepancies between the map and the other application information. It appears that the acreages listed on the map are the disturbed acres and not the total tract acreage. If that is the case, then please indicate so in the legend or on the map labels or alternatively just list the acreage of the entire tract on the map (probably more appropriate.) (BEB/ZAB)

The map has been revised as suggested.

3. Please label the acreage contained within Tract 3 on the permit area map, Attachment 1. (BEB)

The map has been revised as suggested.

Attachment II – Metes and Bounds Description

4. Please include a map (or depict on Attachment 1) showing the location of the points listed in the metes and bounds description, Attachment II, similar to what was provided on Attachment 5 in Bond Release No. 6. Also, please identify the beginning point using the established Public Land Survey System (PLSS) or in some other manner to correlate the Knife River Corporation (KRC) coordinates to a common public land survey system. (GAW/RLK)

Attachment 2 has been added to show the metes and bounds of all three Tracts included in the application (BR7).

Attachment 4 – Letters of Notification

5. Please include copies of the notification letters for the proposed bond release which were sent to the surface owners, adjoining property owners, state agencies and local government bodies as required NDCC 38-14.1-17(1)(b). (RLK)

Copies of the final notification letters sent to surface owners, adjoining property owners, state agencies and local government bodies is included with this submittal.

Attachment 7 – Supporting Narrative

6. Please clarify paragraph two of the introduction narrative in Attachment 7. Please state the number of acres in Bond Release No.7 that previously received Phase I and II partial Bond Release No.3, the percent bond that was released with Bond Release No. 3, and the year that Bond Release No. 3 was approved. Also please state the exclusion area of 16.9 acres remains under 100% bond. (ZAB)

Paragraph two of the introduction narrative in Attachment 7 has been revised as suggested.

7. The bond release tracts are clearly and consistently identified as Tracts I, II and III in the bond release application and in Attachments 1-6, and in Attachment 7 up to the Reclamation History, where the tracts are identified by owner or section. For clarity and consistency, please include Tract I, II and III in the headings or narrative of the Reclamation History, in the Evaluation of Success narrative, and on the data tables on pages 7-21 of Attachment 7. (ZAB)

References to each of the three tracts have been added to the narratives of the historical and revegetation success narratives, linking the property under discussion to the appropriate tract. Tract numbers have also been added to the headings of the data comparison tables.

8. Please revise Attachment 7 to discuss the public road located along the east side of Section 29, Tract 1, and clearly show which portions of this road were affected by mining activities. (GAW)

Attachment 7 has been revised to discuss the Township road as suggested, and Exhibit 7.4-1 (Respread Tracts and Depths) has been added which clearly identifies the portions of this road that were affected by mining activities.

Historical and Future use

9. The first sentence of the "Historical and Future Use" heading states that "The acreage of this bond release application was primarily utilized in support of mining activities during active mining". This statement only appears to apply to Tract 3, the road corridor in Section 26, as coal was removed from Tracts 1 and 2. Please revise this sentence to provide clarity. (GAW)

The identified sentence has been revised as suggested.

10. Sentences in the second paragraph of the "Historical and Future Use" and the first paragraph of the "Reclamation History" sections state that the annual map seeding dates do not represent initiation of the revegetation responsibility periods and that differences will be noted between the annual map and Exhibits 7.1 and 7.2. However, NDAC 69-05.2-13-02(2)(f), and as further clarified by Policy Memorandum No. 14 to Mine Operators, specifically requires the annual mine maps to document initiation of the 10-year revegetation responsibility period. Please revise these statements accordingly. Future reviews of the Gascoyne Annual Map will pay particular attention to this matter. (GAW)

Our statements regarding differences for the seeding date given in the bond release application and annual map dates are correct for the four tracts listed in the narrative. The dates given in the bond release narrative and on the exhibits represent seeding of perennial species and therefore, initiation of the bond liability period. The annual map will be corrected at the next regular submittal.

11. Narrative on both page 2 of the application and page 6, Developed Water Resources, describes Pond 23 within the bond release acreage and both narratives state that the pond functions as it was originally designed. For the past couple of years, several PSC inspection reports have noted the equalizing culvert connecting Pond 23W and Pond 23E was plugged with sediment and scoria and needed to be cleaned out. Please note in the narrative(s) whether or not the culvert had been recently cleaned out and when it occurred. If the culvert has not been cleaned out, Knife River will need to do this work prior to release of bond. (BEB)

The narrative, under the heading Developed Water Resources, has been expanded to describe the equalizing culvert and its continued functionality despite exceptionally high precipitation levels and the presence of a modest accumulation of sediment/scoria near the pipe outlet that was identified during those inspections where pond levels allowed adequate visual evaluation. As stated in the narrative, both the pipe and the pond continue to function as designed and intended.

Reclamation History

12. Please include a map that shows the topsoil and subsoil respread depths of the disturbed areas included in the bond release application as has been indicated in the Addendum to the bond release application, SFN 19813 (1-2004). We understand that all but 16.9 acres of disturbed land was included in Partial Bond Release Application No. 3 to KRSB-8101 and that Exhibit 5.1 in Bond Release Application No. 3 provides the SPGM respread depths. Please reference this Exhibit in the first paragraph of the Reclamation History and include a respread depths map of the areas not included in Partial Bond Release No. 3. (GAW)

Exhibits 7.4-1 through 7.4-3, Respread Tracts and Depths, have been added to depict topsoil and subsoil respread depths for disturbed areas included in this bond release application (BR7).

13. Please review and revise the first sentence of the cropland narrative on page 2 of Attachment 7, which discusses tract Rd 23, but is labeled BI 23 on Exhibits 7.1 and 7.2. Also, the Exhibit numbers should be included for clarity so the end of the sentence reads: "... identified as tract BI 23 on Exhibits 7.1 and 7.2". (ZAB)

The narrative has been revised per the comments.

14. Please revise the last two sentences of the cropland narrative on page 3 of Attachment 7. Please describe this area as the hayland in the SE1/4 of Section 26 and provide the specific reclamation history and dates instead of just referring to Bond Release No. 3. (ZAB)

We have added a reference to the SE26 to clarify the location of the grass/legume portion of the access road corridor. We believe that the relatively sparse reclamation history for this portion of tract 3, including seeding date and agronomic use through the years, can be gleaned from the narrative and referenced exhibits concerning tract BI23. As is true for all of the revegetation tracts, the reference to Bond Release No. 3 was meant to aid the reader in finding information on final grading and respraying aspects only.

15. Paragraph 4 of the hayland narrative on page 3 of Attachment 7 discusses the history of the NE1/4 of Section 33 and states fertilizer application was identical to the early Reimer tracts. However, there is no narrative regarding fertilizer use on the Reimer tract. Please add narrative to paragraph 2 discussing fertilizer application on the Reimer tract. (ZAB)

The requested narrative on fertilizer use has been added.

16. Exhibit 7.2 identifies a portion of the northwest corner of Tract 2 as an area disturbed prior to North Dakota's first reclamation law and as an area that was seeded in 2002. However, this area is included in Bond Release No. 3 as an area having been backfilled and graded and SPGM respread. Please clarify if any SPGM was respread on this area and why it would not be seeded until two years after approval of Bond Release Application No. 3. The area listed as not having been respread with SPGM is not readily distinguishable in the field. If SPGM was not respread on the area, it seems it should be considered permanent hayland rather than cropland/hayland. Please revise the application to clarify what reclamation activities occurred on this pre-law tract. (GAW)

Bond Release No. 3 indicates that there was no respreading of SPGM in this tract. We have no record of SPGM respreading here, but it appears that a portion of the 1999 seeding was reseeded in 2002, perhaps to improve a weakly established vegetation stand. We have supplied all of the available information in the application. We do consider all of this area to be permanent hayland, as does the landowner, as indicated by his postmining land use selection of hayland.

Evaluation of Reclamation Success

17. A sentence in the last paragraph on page 4 of Attachment 7 states that "In a sense, the outside strips (of the corridor) may be seen as representative sampling strips...". This implies that the sample points were not selected randomly which is a fundamental requirement for statistical inferences. Please revise this sentence and include a discussion about how samples points were determined for all three tracts. (GAW)

We have added language to the narrative to add light to the sample siting approach taken on reclaimed areas and control areas. Sampling results indicated that samples from the outside portions of the corridor would result in yields most representative of the entirety of the adjoining Andersen acreage previously released from bond.

18. Please revise the Perkins discussion in the Evaluation of Reclamation Success narrative on page 5 of Attachment 7 to discuss management of the pre-1975 law areas during the revegetation liability period and include information that will allow the Reclamation Division to determine that land is functioning as intended. (GAW)

Similar to what is described above in the response to item number 16, Knife River asserts that this area is functioning as intended and similar to adjacent reclaimed areas. Further, we have provided all available information regarding this area in the application. A review of historic overhead aerial images reinforces that there are negligible differences in vegetative success between this pre-1975 law area and adjacent reclaimed areas. A sentence has been added to the discussion of Tract 2 in the Evaluation of Reclamation Success to address this matter.

19. Table 2 on page 8 of Attachment 7, S26 Anderson Hayland Yield Comparisons, show that the 2007 and 2010 Long-Term Average yield values to be 1.33 and 1.34 T/ac but with rounding these values should be 1.34 and 1.35, T/ac respectively. Likewise, these same values in Table 2 of Page 10 of Attachment 7 should be revised. Please review and update accordingly. (GAW)

After consultation of online Agricultural Statistics Service county data sources and review of our Excel data tables and calculations used to generate the long-term alfalfa hay yield values, we have confirmed the accuracy of the long-term values we used.

20. In Table 1, Andersen Unadjusted Technical Standard for Reclaimed Hayland, on page 8, the suitability group for the Vebar map unit is listed as group H3 with a yield of 0.53 t/ac; however, it appears that the correct suitability group would be F3 with a yield of 1.05 t/ac for Vebar soils with less than 25% slope as listed in the Reclamation Division's Revegetation Guidelines. Please review and revise as appropriate. (RLK)

The correct information now appears in Table 1, as well as the summary table at the conclusion of the narrative.

21. For tract 3 consisting of the Andersen tract in the S1/2 of Section 26, please consider using a weighted production ratio for production data where such data is available similar to what is presented for Section 29. This is a small tract that may be used for either annual crop or hay production. The entire tract is currently in hay production and it appears that the entire tract had been used for annual crop production in the past. (RLK)

We have added a set of tables presenting a weighted production ratio comparison for this area. Although the portion of the corridor that was formerly cropped is now being hayed, this is the only portion that was ever cropped post-reclamation.

22. Table 2 on page 9 of Attachment 7 contains a number of values that appear should be rounded to a higher value. For example, the 2006 and 2007 long-term average yield values are listed as 1.28 and 1.33 but it appears these values should be rounded to 1.29 and 1.34. Likewise, the 2007 adjusted standard is listed as 1.53 but in fact should be rounded to 1.54. Please review and correct as necessary. (GAW)

As with #19, our long-term averages have been rechecked and verified. The adjusted standard has been increased to 1.54 t/ac.

23. Tables 2 and 3 on page 10 and the table at the bottom of page 5 of Attachment 7 include year 2006 data for Reimer's land in Section 29 (Tract 1). However, a portion of this tract was reclaimed in 2000 and seeded in the fall of 2000 (October 13, 2000) as mentioned in the narrative in the third paragraph on page 2. Therefore, 2006 is the sixth year of the revegetation responsibility period and cannot be used to demonstrate revegetation success for the area seeded in 2006 as NDAC 69-05.2-22-07(4)(c) requires data after year six of the responsibility period. Please revise to clarify that the 2006 data is not being presented to demonstrate revegetation success for the entire area. (GAW/RLK)

When sampling occurred in 2006 we were operating under the guidance of the 2003 vegetation guidelines, which allowed use of data for 3 years, beginning in the sixth year (2006), if one year was the last year of the responsibility period. The narrative has been amended to clarify the applicability of the 2006 data under the then-current and prevailing vegetative guidelines.

24. Please revise the fourth paragraph on page 5 of Attachment 7 to clearly state that the 2008 hayland sampling data only represents the E1/2 of the tract (Reimer's – Tract 1). It is only through careful review of the Exhibit 7.2 that one realizes that the 2008 data does not properly represent all reclamation initiation dates. (GAW)

We have added a sentence to the paragraph to reinforce the information presented in the reclamation history section and Exhibit 7.2 regarding the split agronomic use of the Reimer reclaimed area in 2008.

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25. Table 3 on page 10 of Attachment 7 shows that Reimer's property achieved revegetation reclamation success only in 2006, 2008 and 2010 and that revegetation success was not achieved in 2007. However, the 2006 data cannot be used without a variance to the 10-year initiation period for the ponds that were reclaimed in 2000 (reclamation success must be proven any 2 years after year six) and the 2008 data only represents the hayland portion of the tract. Therefore, only one year of data is included that demonstrates revegetation success for the entire tract. Please review and either include an additional year of data or add information for the 2007 data to show that the yield is not statistically different than the standard. Another alternative may be to clarify in the narrative and note in the tables that the 2006 and 2010 data demonstrates success on the portion of the tract seeded prior to 2000 and the 2008 data along with the 2010 data demonstrates revegetation success for the pond site area that was reclaimed in 2000. (GAW/RLK)

We have no additional data and statistics cannot be applied to the 2007 data since the crop yields are derived by combine harvesting of the entire field. As suggested, we have modified the narrative and comparison table to explain the applicability of data from 2006, 2008, and 2010 to certain portions of the Reimer area.

Knife River Corporation appreciates your assistance in this matter. Please don't hesitate to contact me by telephone at (701) 530-1421 or by email at ned.pettit@kniferiver.com if you have any questions or require additional information.

Sincerely,



Edward M. "Ned" Pettit
Environmental Manager

Enclosures