



# Public Service Commission State of North Dakota

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May 12, 2011

Mr. Donn R. Steffen  
Environmental Manager  
Coteau Properties Company  
204 County Rd. 15  
Beulah, ND 58523

Dear Mr. Steffen:

The Reclamation Division has completed an initial review of the application for Final Bond Release No. 4 to Permit NACT-9101. A more detailed technical review will be completed following the field inspection. The field inspection will be scheduled during the active growing season this summer. The items related to Attachments I through IV must be addressed prior to publishing the public notice and mailing the surface ownership and governmental agencies notification letters. There are concerns related to the soil respread depths and prime farmland on the hayland included in this bond release application that may make the reclaimed hayland ineligible for final bond release at this time.

### **Attachment I - Final Bond Release Tract Map**

1. Because only portions of the NW $\frac{1}{4}$ SE $\frac{1}{4}$  and NE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 21 are included in the bond release application, please list just the acreage in each of those portions included in the bond release application of the quarter-quarter sections rather than the total acreage in the quarter-quarter sections. (SAS)

### **Attachment III – Legal Advertisement**

2. The correct consolidated bond amount for all permits at the Freedom Mine is \$109 million, not \$102 million. Please correct. (SAS)
3. In the second paragraph, please rewrite the sentence beginning with “Soil stockpile areas...” to read “Soil stockpiles were removed and the areas reseeded in 2000.” (SAS)

#### **Attachment IV – Letters Sent by Coteau**

4. For future reference, Todd Sando is now the State Engineer, Dale Frink has retired. Please update your mailing listing accordingly. (SAS)
5. For future reference, the new mailing address for Mr. Dave Glatt at the Health Department is P.O. Box 5520, Bismarck, ND 58506-5520. Please update your mailing listing accordingly. (SAS)

#### **Attachment V – Surface Ownership, Land Use, and Soil Depths Map**

6. Please revise Attachment V to identify the adjacent surface owners located on the west and north sides of the bond release tract. All of the adjacent surface owners listed in Attachment IVa must be shown on Attachment V. (GAW & SAS)
7. Please label the temporary wetlands on Attachment V and identify their size on the map, a table or narrative. (GAW)
8. Please depict and label County Road 27 on Attachment V. (GAW)

#### **Attachment VI – Contour and Revegetation Map**

9. Please rename Attachment VI as the Post-Mining Contour and Revegetation Map since the contour/elevation lines depict the post-mining topography. (GAW)
10. Please depict the grade approval or mineral removal boundary on Attachment VI so that the associated disturbance boundary can be determined and where the pre-mining topography has been altered by mining activities. Please correct as necessary. (GAW)
11. There are several small “enclosed” delineations within the ingress/egress areas that are not labeled as to when the 10-year initiation period began. These are especially obvious on the south side of the previously-disturbed spoil area on the north side of the “horseshoe” area. (SAS)

#### **Attachment VII – General Information**

12. Please revise the Wetlands narrative in Attachment VII to clarify why the temporary wetlands that were created as enhancement features on the redisturbed orphan spoil are not be used to replace premining temporary wetlands that were on this tract prior to mining. The Reclamation Division does not believe it is appropriate to replace this acreage elsewhere on the mine, as indicated in the narrative, in instances where enhancement temporary wetland features are being retained on the bond release tract. (GAW)

13. A table comparing pre- and post-mining acres on page 5 is provided to evaluate the effects of mining on wildlife; however, there is no discussion on the results or significance of this table. Please provide additional discussion that summarizes the results of this table. (SAS)
14. Please provide supporting narrative and available water quality data in the application for the permanent spoils pond that is located in the NE1/4, SE1/4 of Section 21 as required by NDCC 38-14.1-24(7). This pond will likely be utilized as a water source for cattle grazing the adjacent 40-acre native grassland tract, as well as being utilized by wildlife. Also please indicate if this pond has any features that will require future maintenance [NDCC 38-14.1-17(7)(c)(2)]. (BEB & GAW)

#### **Attachment VIIIa – Vegetation Management and Production**

15. Please include a subsection in Attachment VIIIa that discusses the SPGM respreading that occurred within this bond release tract. As noted in the inspection report for soil probing conducted in Section 21 of Permit NACT-9101 in October and November 2010, the topsoil thickness was marginally adequate or short at some locations in the associated disturbance “Horseshoe Area” in comparison to the required topsoil thickness of 11.6 inches. Topsoil thickness of six inches observed at soil probe locations 18, 19, and 20 within the boundary or access trail of former subsoil Stockpile SS-122 was marginally adequate and the topsoil thickness was short at soil probe locations 75 (three inches) and 76 (four inches) within the boundary of former topsoil Stockpile TS-235. In contrast, excess topsoil was observed at soil probe locations 74 (28 inches thick within the boundary of former topsoil Stockpile TS-B-233), 77 (17 inches thick within the boundary of former topsoil Stockpile TS-235), 78 (22 inches thick within the boundary of former topsoil Stockpile TS-B-237), and 79 (17 inches thick within the boundary of former topsoil Stockpile TS-239). Please also explain why there is a topsoil shortage at some locations and a topsoil excess at other locations within the associated disturbance “Horseshoe Area”, and describe Coteau’s plan for achieving a more uniform topsoil thickness requirement throughout the associated disturbance area. We believe Coteau needs to remove topsoil from areas with significant excess topsoil and place it on areas with marginal or short topsoil respread thickness before final bond release can be granted. (WTG)
16. In the first part of Attachment VIIIa, please clarify how many acres of each land use have been reclaimed on this tract and the acreages of the undisturbed lands by land use. The post-mining acreages of reclaimed cropland and reclaimed hayland should be listed separately. (GAW)
17. The second paragraph on the first page of Attachment VIIIa, states that 6.6 acres of prime farmland that was affected by mining and that approximately 4.4 acres was reclaimed in Section 21 while 2.2 acres was respread in Section 16. However, a review of the premine soil survey and the Contour and Revegetation Map, Attachment VII, indicates that approximately 20 additional acres of prime farmland were affected by associated disturbance in the N1/2 of Section 21. Please address the reclamation of this additional

prime farmland and identify where this prime farmland was reclaimed on Attachment V. (GAW)

18. The third paragraph of Attachment VIIIa states that there are 0.6 acres of post-mining temporary wetlands located on native grassland but the wetlands narrative in Attachment VII states that there are 1.0 acres of post-mining temporary and ephemeral wetlands in the bond release tract. Please address this inconsistency. (GAW)
19. The sentence discussing the liability period incorrectly states that revegetation success can be demonstrated from 2005 and later, since this corresponds to year six of the liability period. NDAC 69-05.2-22-07 requires the standard be achieved for any two years after year six for all land uses included in this bond release except when a single standard is developed for prime and non-prime farmlands soils in which case the sixth year of the responsibility period is allowed. Please make the necessary corrections. (GAW)
20. The Redisturbed Orphan Spoils narrative in Attachment VIIIa indicates that the ground cover of the undisturbed orphan spoil was 81% in 2010 but the sampling data could not be found in the application. Please provide this data and a reference in the narrative indicating where this data is located in the application. The narrative should also discuss how the chosen sampling locations are representative of the re-disturbed and undisturbed orphan spoil. (GAW)
21. Please revise Attachment VIIIa to properly characterize the temporary and ephemeral wetlands that were reclaimed on various land uses and redisturbed orphan spoils. Statements made on pages 1 and 4 of Attachment VIIIa state that these wetlands are functioning as intended but this is not an adequate characterization of these wetlands for the purposes a final bond release. Please provide detailed information for each feature documenting approximate depth of the basin and include wetland species composition or other information (photographs) that confirms that these features have not developed into seasonal or more permanent wetlands. There also should be a discussion about whether these ephemeral wetlands are detrimental or beneficial to the adjacent post-mining land use. Specifically, clarify if the ephemeral wetlands along the north edge of the bond release tract that are in the road ditches or road right-of-ways and if the wetland located in the hayland that was not harvested in 2009 is capable of being hayed most years. (GAW)
22. Please indicate who collected the vegetation sampling data being used to demonstrate revegetation success. (GAW)

#### **Attachment VIIIa - Native Grasslands**

23. The native grassland production discussion references Attachment VIII f, a map depicting the location where sampling was conducted on the reclaimed tract, but this attachment is not included in the application. Attachment VIII c-3 shows the sampling locations. Please correct this inconsistency. (GAW)

24. Please revise the Diversity Allotment table to show achievement of the percent native species composition requirement using a Kentucky bluegrass value obtained only from those reference areas that are being used to demonstrate productivity and cover revegetation success. In other words, it is not appropriate to use one silty reference area to demonstrate productivity and cover revegetation success and then use an average Kentucky bluegrass value from all of Coteau's approved reference areas to show diversity revegetation success. Please review and update as necessary. (GAW)

#### **Attachment VIIIc – Rangeland Cover and Productivity Standards**

25. At the bottom of Step 1, the 2009 and 2010 Cover Standard calculations state that the silty range site occupies more than 25% of the premine acreage, but the numbers indicate that the silty site actually comprises over 60% of the premine acreage. Correct this discrepancy. (GAW)
26. The 2010 adjusted productivity standard calculations indicate that the reference area yielded 2026 lbs/acre in Step 1 but a value of 2082 lbs/acre is listed in the Step 2 calculations in Attachment VIIIc (page 4 of 4). However, Attachment VIIIc-1 shows that the mean sample weight was 56.8 grams/1/4meter which if multiplied by the conversion value of 35.69 equals 2027 lbs/acre. Please review and correct as necessary and update the 2010 adjusted yield value listed in Attachment VIIIa. (GAW)

#### **Attachment VIIIa – Cropland**

27. Please include a table that provides a breakdown of the soil mapping units of the undisturbed soils included in the development of the unadjusted standard. Step 1 of Attachment VIIIc, Cropland Productivity Standards, indicates that there were 0.5 acres of prime farmland and 10.2 acres of non-prime farmland soils included in the whole field harvest fields; however, we do not know what soil map units made up these acreages. Please also include a soils map showing the field boundaries in relation to the soil mapping units since the field boundary is not shown on Sheet 5 of the CVSS. (GAW)
28. The Section 21 prime cropland unadjusted productivity standard, Section B-2 of the CVSS, has a notation at the bottom that states that "of the 13.84 acres of prime farmland, 6.30 acres were disturbed by mining and 7.54 were associated disturbance." The second paragraph of the first page of Attachment VIIa states that approximately 6.6 acres of prime cropland was mined through. Furthermore, the soils map, Sheet 5 of the CVSS, shows that approximately 40 acres of prime farmland was within the mining and associated disturbance boundary in Section 21, of which approximately 20 acres was prime farmland located on hayland. Please review and update the bond release application and the associated tables in CVSS document as necessary. (GAW)

### **Attachment VIIIa – Hayland**

29. Attachments VIIIe, VIIIe-1, and VIIIe-2 provide data from the hayland located within the “horseshoe” area in this parcel. According to Permit NACT-9101, “...field surveys were made to determine the use of SCS-designated prime farmlands” (Section 2.5.3.1 on page 1). Within this area described above, prime farmlands that were “...historically cropped as defined by NDAC 69-05.2-10-02(43)...” were identified within this area. Coteau did not request an exemption from the prime farmland requirements at the time this area was permitted and it appears this area does not meet the exemption requirements of NDAC 69-05.2-26-06. Therefore, reclamation success must be demonstrated on the prime farmland areas as outlined in NDAC 65-05.2-22. The data submitted with the bond release application cannot be used to demonstrate reclamation success of the prime farmland areas. The required annual crop data must be submitted for the prime farmland areas. (SAS)

### **Attachment VIIIa – Bond Release Stages**

30. Please clarify how many acres of each stage of bond release are being requested with this bond release application. The third paragraph of Attachment VIIIa states that about 160 acres of the bond release application is undisturbed land. Therefore the bond release stages cannot be applied to this acreage. Ideally, the acres that received grade approval would be identified and listed as well as the acreage where SPGM was respread. The acreage where the revegetation responsibility period was initiated should be larger than the area where SPGM was respread given that SPGM was not respread on the redisturbed orphan spoils or the areas where topsoil was stockpiled. (GAW)

### **Attachment VIIIId – Cropland Productivity Standards**


31. In Step 1 of the 2009 Vegetative Productivity Standards for Cropland in Attachment VIIIId (page 1), the equation indicates that undisturbed non-prime acres were multiplied by the “UYS” (unadjusted yield standard). It appears this should have been multiplied by the “Weighted Average Yield” for non-prime soils similar to what was done for undisturbed prime. Please correct as necessary. (SAS)
32. Total bushels for the 2009 crop year are shown as 4063.1 bushels yet total bushels on page 1 of Attachment VIII-1 are listed as 4064.1 bushels. Please correct as necessary even though it will not change the results. (SAS)
33. In Step 1 for the 2008 cropland data in Attachment VIIIId, please explain or correct the following discrepancies:
- A total of 159.9 acres of cropland is used; however, Attachment VIIIa indicates there are 158 acres of postmine cropland.
  - The prime acres are not separated into disturbed and undisturbed components. The additional prime cropland acres in the NW¼SW¼ appear to be undisturbed according to Attachment VI and thus should be figured in separately using the weighted average yield from the CVSS for this area.

Mr. Donn R. Steffen  
May 11, 2011  
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- c. Similarly, there is not a separate calculation for the undisturbed non-prime acres. Because of these errors, no further analysis of the 2008 data was done. (SAS)

If you have any questions, please contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "James R. Deutsch". The signature is written in a cursive style with a large initial "J" and "D".

James R. Deutsch  
Director  
Reclamation Division

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