



Public Service Commission

State of North Dakota

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July 16, 2014

Ms. Melody Smith
Environmental Specialist
American Colloid Company
P.O. Box 2010
Belle Fourche, SD 57717

Dear Ms. Smith:

The Reclamation Division has reviewed American Colloid Company's June 2, 2014 response to our July 25, 2013 technical review items for Revision No. 7 to Permit ACPG-9701 for the Tompkins Mine Area addition at the American Colloid Mine near Gascoyne, ND. The following items were noted and must be addressed or corrected before the Reclamation Division will recommend Commission approval:

General

1. The hyperlinks in a number of sections of the electronic permit application do not work. For example, Sections 2.4.1, 2.7.1 through 2.7.4, and 3.1.5. Please correct these links so that the information can be viewed as intended. (GAW)
2. Numerous maps included in the Revision No. 7 permit application identify the Tompkins permit addition area as the "Amendment Area" and is depicted different than the "Permitted Area" on the maps and in the associated legends. Please revise each of these maps so that the entire permit area is properly identified. In other words, the Page, Perkins and Tompkins permit areas should all be depicted and identified in the same manner, as these areas will constitute the entire permit area once Revision No.7 is approved. NDAC 69-05.2-05-02 (GAW)

Section 1.0 – General Introduction

3. Follow-up to item No. 2: It was noted that newly added reference Naomi Knight of Knight Technologies, Inc., provided updated Probably Hydrologic Consequences and this typo should be changed to Probable Hydrologic Consequences. Please make this simple change to the narrative. (BEB)

Section 1.3 – Business Entity/Compliance Information

4. Follow-up to item No. 7: Updates are required for the "Other Licenses and Permits" spreadsheet in Section 1.3.5. Currently, the Issuing Regulatory Agency for road use approval as well as the

approval to operate within 100 feet of 127th Ave. SW that is associated with the Tompkins Mine Area addition is listed as Gascoyne Township and this needs to be changed to Fischbein Township. Please update the spreadsheet. (BEB)

5. Follow-up to Item No. 8: Section 1.3.5, Other Licenses and Permits, shows that the NDPDES permit for the plant site expired June 30, 2014. Although the plant site is outside of the mining permit area, American Colloid may want to update this information since it is listed in the table comprising Section 1.3.5. (GAW)

Section 1.5 – Identification of Interests and Right of Entry

6. The yellow font on the Surface Ownership Map, Section 1.5.3(a), is not legible and it is difficult to read the green font. Please revise so that the information is legible. (GAW)
7. Please accurately depict the entire permit boundary of Permit ACPG-9701 on the Surface Ownership Map, Section 1.5.3a, and on the Mineral Ownership Map, Section 1.5.3b. The wording *Amendment Boundary* should be removed from the legends. (GAW)

Section 2.2 – Ground Water Hydrology

8. Follow-up to item No. 10: The third Well Driller's Report that is provided in Section 2.2.2(c) provides the lithology and construction details of a 2-inch diameter monitoring well screened between 61 and 76 feet and located within the SE1/4NE1/4 of Section 34; however, the well has been identified as Ponds 9 and 10 on the report. We are unsure of what this means and there appears to be no ponds located within the SE1/4NE1/4 of Section 34. Please review and provide clarification. (BEB)
9. Of the 15 or so pages of Well Driller's Reports provided (Page and Perkins) in Section 2.2.2(a), it appears that only wells LP #3, LP #4, and LP #5 have been identified on the report forms. Hence, it appears that wells LP #1, LP #2, and LP #6 as shown on the Water Well Location Map, Section 2.2.2(b), and located in Sections 19, 7, and 6, respectively, are not included in the list of the 15 or so Well Drillers Reports that are provided. If available, please provide the Well Drillers reports or any other construction detail information for these missing wells (#1, #2, and #6) and place them in the permit. Labeling of the Well Drillers Reports for these wells or the labeling of whatever construction detail information is available for these wells; similar to what was done for the Tompkins wells (shown in red at the top of the report) would be appreciated. (BEB)

Section 2.4 – Fish and Wildlife Resources

10. Follow-up to Item Nos. 16 and 17: A sentence in the first paragraph of Section 2.4.1 states that the ND Game and Fish Department was contacted to verify that the proposed mining plan will have no significant adverse impacts on wildlife or wildlife habitat. Correspondence from the NDGFD is included for the Page and Perkins Mine areas but not the Tompkins Addition Area. Please revise to clarify if this statement is applicable to the Revision No. 7 Tompkins Addition Area, and discuss communication with NDGFD regarding the Revision No.7 Addition Area. (GAW)
11. Follow-up to Item Nos. 16 and 17: The second sentence of Section 2.4.1, Fish and Wildlife Narrative, references Sections 2.4.2, 2.4.3 and 2.4.4 for fish and wildlife information but Sections

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2.4.2 and Sections 2.4.3 contain only a letter to the NDGFD and their reply, and no meaningful basic information for the permitted areas. Please revise to provide some basic meaningful fish and wildlife baseline information for these permit areas, which should at least include a summary of the habitat types or land uses within the permitted areas. (GAW)

12. Follow-up to Item Nos. 16 and 17: Please revise the first sentence of the third paragraph of page 1 in Section 2.4.1 to clarify that “No designated critical habitats or high value wildlife habitats occur in or adjacent the permit area” rather than the current language. (GAW)
13. Follow-up to Item Nos. 16 and 17: Please revise the last sentence of the third paragraph on page 1 in Section 2.4.1 to clarify that the table below the narrative is a County List and revise the table to include the Northern Long-Eared Bat and Rufa Red Knot which are both Candidate species. (GAW)
14. Follow-up to Item Nos. 16 and 17: Please revise Section 2.4.1 to provide a summary of the habitat types in the Revision No. 7 addition and adjacent areas and discuss if there is any suitable habitat in the area for any threatened, endangered or candidate species for Bowman County as identified by the USFWS, or if there is any high value wildlife habitat in the permit or adjacent area. For example, discuss if the permit area is in the whooping crane flyway and if there are any wetlands in the area that may be considered suitable as stopover habitat for this species. Discuss if there are any prairie dog towns in the area where Black-footed ferrets may exist, or any native grassland communities with habitat suitable for the Greater sage grouse or Sprague’s pipit. Please also discuss whether or not the permit and adjacent area have any habitat suitable for the Northern Long-Eared Bat. (GAW)
15. Follow-up to Item Nos. 16 and 17: Please revise the last sentence of Section 2.4.1 to meet the requirements of NDAC 69-05.2-09-17, and include enhancement measures that will be used during mining that will benefit wildlife. (GAW)

Section 2.4.4 – Fish and Wildlife Baseline Inventory...Section 35, T132N, R99W

16. Follow-up to Item Nos. 16 and 17: Section 2.4.4.1, Wildlife Habitat Map (for the Revision 7 Addition Area) depicts areas identified and labeled as “Drainage” in the area adjacent the permit area. Please characterize the vegetation habitat type associated with both drainageway areas so the revision can determine what type of habitat exists in the area. Please also clarify if the National Wetland Inventory identifies all or portions of these drainages as wetlands. (GAW)
17. Follow-up to Item Nos. 16 and 17: The Wildlife Habitat Map (for the Revision 7 Addition Area), Section 2.4.4.1, identifies the NE1/4 of Section 35 as “Native”, presumably native grassland, but much of this area was mined by the Gascoyne Mine and consists of reclamation vegetation that is not native. Please review and revise to properly characterize this habitat type. (GAW)
18. Follow-up to Item Nos. 16 and 17: The Wildlife Habitat Map (for the Revision 7 Addition Area), Section 2.4.4.1, does not show a wetland in the cropland located in the NE1/4 of Section 35 where a closed depression appears to exist. Please review and update if necessary. If a seasonal or more permanent wetland exists in this area, then the watershed within the permit area to this wetland should be restored, or justification should be provided why it is not necessary to restore the watershed to this wetland. (GAW)

Section 2.6 – Surface Water Information and Monitoring Plan

19. Follow-up to Item No. 20: The reference and link to Section 2.2.2, Ground Water Narrative, does not appear relevant in the narrative added to Section 2.6.2 regarding surface water sampling since the surface water sampling information could not be found in Section 2.2.2. Please remove the reference or revise as appropriate. (RLK)

Section 2.7 – Pre-Mine Land Use and Vegetation

20. Section 2.7.4(j) is the only link that functions in the ACPG-9701 Electronic Permit Master TOC.htm. Please repair the links to Sections 2.7.4 through 2.7.4(i). (ZAB)
21. Please add Section 2.7.5(a) and a link to the ACPG-9701 Electronic Permit Master TOC.htm. (ZAB)
22. Please repair the link to Section 2.7.5(a) – Pre-mine Basins (Tompkins Mine Area) in the Detailed_Rev_7_TOC.htm. (ZAB)

Section 2.7.4 – Pre-mine Vegetation Tompkins

23. Follow-up to Item No. 32: Please revise Section 2.7.4, Pre-Mine Vegetation Tompkins, to discuss the wetland identified in Section 5.0 and clarify the classification of this wetland feature as a temporary, seasonal or more permanent feature as required by NDAC 69-05.2-08-08(1)(5)(b). This wetland should also be identified on the Vegetation Map, Section 2.7.4. If the wetland area is normally cropped it should be considered a temporary wetland. Please also discuss if this wetland is identified in the National Wetlands Inventory or if it is considered a wetland by NRCS. (GAW)
24. Section 4.1.8, Weed Management Plan, states that premine surveys of noxious weeds will be conducted during the permitting process and that infestations will be identified on a map (Subsection 2.0 of 4.1.8). Please revise Section 2.7.4 to discuss if the Tompkins Addition area contains any State listed noxious weeds and identify infestations on a map as stated would be done. (GAW)

Section 2.8.1 – Soil Resources

25. Follow-up to item No. 35: Please expand the prime farmland narrative of the Tompkins Mine Area in Section 2.8.1 to include the prime farmland soil map unit information required by NDAC 69-05.2-09-15(1). Please add the soil map unit description, soil series description, and horizon properties for both prime farmland soil map units (from the NRCS Soil Survey) to the narrative instead of referencing the permit's detailed soil survey. The prime farmland information is available from the NRCS Web Soil Survey and related NRCS websites. We also suggest revising both paragraphs of the prime farmland narrative of the Tompkins Mine Area in Section 2.8.1 by removing the references and hyperlinks to the detailed soil survey report and the detailed soil survey map. While the detailed soil survey for the Tompkins Mine area shows the location of the prime soils, it does not provide the other required information for prime farmland. The link to Section 2.8.4(c) is acceptable; however, this section should be appended with the additional requested prime farmland information or it should be provided in a separate subsection. (WTG)

Section 2.9 – Probable Hydrologic Consequences

26. Follow-up to Item No. 38: Please include a link to the Premine Drainages map, Section 2.9(b), in the table of contents. Also, in the Section 2.9(a) narrative, please fix or activate the links to *Section 3.6.1(c) Tompkins Surface Water Study and Erosion Control Plan* and *Section 2.9(b)* appearing on pages 2 and 4. (RLK)
27. Please expand the narrative on page 4 in Section 2.9(a) regarding the post mining drainage changes to provide more information on the potential ponding/flooding or other effects that may result from roughly tripling the size of the drainage area for the east drainage. The narrative added under the heading *Postmining Drainages* in the surface water management study for the Tompkins Mine Area provided in Section 3.6.1(c) does not discuss the potential impact due to increased peak flow or runoff volume due to the changes to the east basin area. The probable hydrologic consequences determination for the permit and adjacent area must identify any effects resulting from the change in drainage area as required by NDAC 69-05.2-08-04(4). (RLK)

Section 3.1 – General Operation Plan

28. The links to Sections 3.1.3 and 3.1.5 in the ACPG-9701 Permit Master TOC do not work. Please repair or activate these links. (FSE)
29. If necessary, please update the Pit Layout and Facility Map in Section 3.1.3(c) to reflect the current anticipated mining schedule. (FSE)
30. Follow up to Item No. 70: Please revise the Operations Description Narrative to clarify that Section 3.1.5c, *Backfilling Calculations (Tompkins Mine)*, contains yardage information about the amount of overburden that will be removed from the North and South Borrow Areas and information about when these borrow areas will be disturbed. (GAW)

Section 3.2 – Existing Structures

31. Follow-up to Item No. 46 (d): The summary description of the structures that occur within 0.5 miles of the Tompkins Addition Area states that there is a power line south, east and north of the permit area but a power line is not identified along the north side of the permit area on the Existing Structures Map, Section 3.2(a). The summary also states that there are roads on all sides, presumably of the permit area, but Section 3.2(a) does not show a road along the north side of the permit area or the pipeline to the south of the Tompkins Mine Area. Please review and revise as necessary to provide clarity. Please also clarify if the 2-track road depicted along the west side of the permit addition area is a public road as defined by regulation. (GAW/ZAB)
32. Follow-up to item No. 46(c): Please change the color of the Section numbers from light gray to black so they are more visible on the Existing Structures Map, Section 3.2(a). (ZAB)

Section 3.4.2 - Climatology

33. Please update Section 3.4.2(a), *Hettinger, ND Precipitation Data 1950-1994*, so that it is current through 2013 as required by NDAC 69-05.2-05-02. (GAW)

Section 3.5 – Transportation Facilities

34. Follow-up to item No. 50: Please label US Highway No. 12 and any other existing transportation structures that will be used to transport Leonardite in the Transportation Facilities Map, Section 3.5.2. Also, please change the Mine Haul Road color from yellow to a color that is visible without magnification on the Transportation Facilities Map, Section 3.5.2. (FSE/ZAB)

Section 3.6 – Surface Water Management

35. Follow-up to Item Nos. 51 and 52: The responses provided state that Section 3.6.2 has been renamed “Major Area Watersheds” but this change does not appear to have been made in the permit. We have no preference on the name for the map so the change would be your choice. (RLK)
36. Follow-up to Item No. 54: The narrative in Section 3.6.1 describing the surface water management for the Tompkins area refers to two shallow closed basins in the permit area but three closed basin areas are discussed. Please correct this discrepancy in the first paragraph of the Tompkins area surface water management narrative as appropriate. (RLK)
37. Follow-up to Item No. 54: In the last paragraph of the Tompkins area narrative in Section 3.6.1, a typographical error appears in the statement “...will be pumped into an open pit.” Please revise as appropriate. (RLK)
38. Follow-up to Item No. 39: Please revise the title for Table 5 in Section 3.6.1(c) to identify that the information is for the post mining drainage basins. (RLK)
39. Follow-up to Item No. 53: Please depict the 5-foot contour intervals on Figure 4b of Section 3.6.1(c) so the reviewer can determine the hydrologic balance of the permit and adjacent area as required by NDAC 69-05.2-16-01(a). This information will allow one to determine the depth of the water that will pond in the low area in the NE1/4 of Section 35 prior to flowing to a tributary to Buffalo Creek in the NE1/4 of Section 35. (GAW)
40. Follow-up to Item No. 54: Figure 2 of Section 3.6.1(c) shows that ditches for water management are planned around all overburden and SPGM stockpiles. However, Temporary Overburden Pile No. 1 is located in a closed depression that will pond several feet of water prior to discharging to the north sediment pond. The first paragraph of Section 3.6.1(c) only briefly mentions that stockpiles will have localized control measures such as ring ditches and sumps. Please provide more specific details for each topsoil stockpile, subsoil stockpile and overburden pile so that it is clear how runoff will be managed for each of these features. This should include a discussion as to the type of material that will be used to construct each “ring ditch”. NDAC 69-05.2-16-08 (GAW)

Section 4.1 – Post-Mining Land Use and Revegetation

41. The pdf file for Section 4.1.1(c) Post-Mining Land Use Narrative was accidentally replaced with the post mine land use map. Section 4.1.1(c) and Section 4.1.2(c) are now both the Tompkins post mine land use map. Please reinsert the pdf file for the Post-Mine Land Use Narrative 4.1.1(c) back into the permit so that we may review the changes made to this section. (ZAB/GAW)

42. Follow-up to item No. 56: Please change the total pounds per acre from 26 to 25 for the Perkins **and** the Tompkins seed mix C in Section 4.1.3 Seed Mixes. (ZAB)
43. Please review the backfilling and respread dates for Pit C-4 in Section 4.1.5(b) Revegetation Procedures for Perkins and on the Reclamation Schedule for Perkins, Section 4.2.2(b). Revise as appropriate so the dates listed for backfilling and respread of Pit C-4 are consistent. If changes are made to the Reclamation Schedule Section 4.2.2(b), the Pit C-4 dates will also need to be revised on the Variance to Reclamation Schedule in Section 4.1.7(a)(1). (ZAB)
44. Follow-up to item No. 56: Please provide narrative in Section 4.1.5 for Perkins and Tompkins to clarify if seeding in October is intended to be a fall or a dormant seeding or revise the October seeding dates listed in the Variance Request to Reclamation Schedules, Sections 4.1.7(a)(1) Perkins **and** 4.1.7(b)(1) Tompkins as well as the Reclamation Schedules in Sections 4.2.2.(b) Perkins and 4.2.2(c) Tompkins. The seeding dates should be consistent with the narrative of Section 4.1.5 which states respread areas will be seeded during the first normal period for favorable planting. Normal seeding dates for Bowman County can be found on the first page of the UDSA-NRCS- North Dakota Herbaceous Vegetation Establishment Guide in the Reference Subjects in Section I of the NRCS FOTG, Field Office Technical Guide at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg>. (ZAB)
45. Please review and make the following corrections to the Variance to Reclamation Schedule, Section 4.1.7(a)(1), for Perkins Mine. (ZAB)
 - a) Correct the spacing in first column for pits A-3, A-4, and A-5 so the pit names are in the same row as the dates and subsequent columns of information.
 - b) Review the placement of the circles in the Approved 3 Year Variance column and ensure they are in the correct row for the A pits.
 - c) Revise the first sentence in the footnote section which implies that the PSC is requesting these variances.
46. Section 4.1.8, Weed Management Plan, is entitled Section 4.1.5(d) at the top of the first page but this document is listed as Section 4.1.8 in the TOC. Please correct this error and label the document the same in all locations of the permit. (GAW)
47. Table 1 in Section 4.1.8, Weed Management Plan, includes a list of weeds that ACC thinks is most likely to be present in the mining area and the list apparently does not include all species considered noxious by all entities. Please consider simply revising to list only the species considered noxious by the State and County Noxious Weed Control Authorities. The list is confusing as presented and it contains species not considered noxious weeds by Control Authorities, such as field bindweed, scotch thistle, and houndstongue but excludes species such as leafy spurge, absinth wormwood and yellow and Dalmatian toadflax. Please revise to provide clarity. (GAW)

Section 4.2 – Reclamation General

48. Follow-up to Item No. 70: Please revise Section 4.2.1, Reclamation Procedures Narrative, to discuss the postmine topographic changes compared to the pre-mine setting and explain how the thin overburden provisions of NDAC 69-05.2-21-04 factor into the topographic changes being

proposed. It appears these provision are the reason topographic changes in the borrow areas can be allowed but this is not discussed. (GAW)

49. Follow up to Item No. 70. Please reference Section 3.1.5(c) in the fourth paragraph on page 1 of Section 4.2.1, Reclamation Procedures Narrative. Section 3.1.3(c) is referenced in this sentence but this exhibit does not provide any meaningful information as to how the borrow areas will be utilized. (GAW)
50. Follow-up to Item No. 73: The updated Reclamation Schedule, Section 4.2.2, indicates that pits S3, S4, and S5 will not be seeded until two years following SPGM respread. Please revise the table or explain (justify) why the pit areas cannot be seeded during the first normal period for favorable planting conditions following SPGM respread along with a description of the erosion control practices that would be used on the areas if they cannot be seeded for two years in accordance with NDAC 69-05.2-22-04 and 05. (RLK)
51. In Section 4.2.4, Reclamation Costs (Bonding Calculations), please provide the assumptions for the worst case scenario and include specific times and material quantities. Section 4.2.4 refers the reader to Section 3.1.5 for the worst case scenario; however, the year of the worst case scenario is not readily apparent. Please clarify in Section 4.2.4 which is the year of the worst case scenario. (FSE)
52. On Post-Mining Contour Map, Section 4.2.7(b)(3), the drainage area in the southwest corner of the permit is labeled as the "Southeast Drainage Area" but it appears to be labeled as the "Southwest Drainage Area". Please correct as necessary. (FSE)

Section 5.0 - Wetlands

53. Follow-up to Item No. 32: Section 5.0 explains that there is a 0.58 acres wetland area in the permit area as depicted on the wetlands map, Section 5.1, but it is not clear if this is a temporary, seasonal or more permanent wetland feature. Please classify this wetland and discuss how it will be replaced in the postmine setting. The Reclamation Division believes that the pre-mine temporary wetland is located on the Dimmick clay loam soil mapping unit rather than the Arnegard soil mapping unit as can be seen on the Pre-Mine Vegetation Map, Section 2.7.4(h). (GAW)

Also, when high-lighting text that is revised please refrain from using any dark colored high-lighting such as the red/hot pink color used for the 5/2014 changes.

As of July 5, 2014, the Commission's 120 day review period had expired. In consideration of the large number of items previously noted in our July 25, 2013 review and the changes that will now be required in the application with this letter, the review period will be extended for an additional 120 days as allowed by NDAC 69-05.2-05-01(4)(b) upon the submittal of American Colloid's response to all noted deficiencies.


Ms. Melody Smith

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If you have any questions, please contact this office.

Sincerely,



James R. Deutsch
Director
Reclamation Division

cc: Bowman County Auditor

Minedata/Page/Permits/ACPG-9701/Revisions/No.7/Rev7_tech2_rvw_ltr_7-16-14