State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
810 W. Maple Street
Spooner WI 54801

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

08/12/2022

Transmitted by email to: Christian.Zuidmulder@Thecreiss.com
Mr. Christian Zuidmulder, General Manager
C. Reiss Company, LLC
111 West Mason Street
Green Bay, WI 54303

Subject: Additional Information Requested for DNR Review and Determination on Materials Management Plan and Ch. NR 718 Exemption Request for C. Reiss Coal Dock Property, Superior, Wisconsin, BRRTS Case No. 02-16-589248

Dear Christian:

The Department of Natural Resources (DNR) received a Materials Management Plan (MMP) and Chapter NR 718 Exemption (the Submittal) for the C. Reiss Coal Dock Property (the Site) prepared for the C. Reiss Company, LLC (C. Reiss) by Stantec Consulting Services, Inc. (Stantec). The Submittal was dated 06 July 2022, and the fee for DNR technical assistance was received and acknowledged on 13 July 2022. This letter requests additional information the DNR requires to complete its Submittal review and determine if exemptions can be granted from the locational criteria in Wis. Admin. Code ch. NR 718.

This unique request proposes that a significant amount of contaminated and potentially contaminated material be relocated and managed on-site, with an estimated total of 141,500 cubic yards. We typically do not receive submittals requesting the management of materials on-site at this scale. The proposal review is complicated by multiple factors, including but not limited to the waste characteristics and quantity, the proximity and potential impacts to wetlands, the St. Louis River, and groundwater, the availability of other environmentally suitable alternatives, lack of detail on critical technical elements, and the organization and presentation of information in the MMP. The Submittal does not contain sufficient information to show that the placement of contaminated materials will meet the requirements in Wis. Admin. Code § NR 726.13(1)(b) 1. to 5, which is required for approval. Listed below is additional information DNR needs from C. Reiss or Stantec to complete our Submittal review. Please provide the following information:

1. Based on the Submittal, DNR understands that BNSF Railway Company may own a parcel within the proposed footprint of the disposal berms, which will have a cap constructed over the contaminated material. DNR has determined that continuing obligations will be required for contamination remaining on the Property, including the capped disposal berms. The online parcel maps for the City of Superior/Douglas County, Wisconsin, identify the BNSF property as Parcel No. 04-804-01003-00. Please provide proof of all written notification(s) of continuing obligations required per Wis. Admin. Code ch. NR 725 and § NR 718.12(2)(d). Notifications need to meet the requirements of § NR 725.07.

2. Comment for the record - Although Stantec submitted a work plan and site investigation report for the Site to the DNR, they were not accompanied by requests for technical assistance and associated fees. They thus were not formally reviewed or approved by DNR. DNR does not concur that site investigation activities are

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complete at the Site and believes that additional investigation of the vertical and horizontal extent of contamination may be warranted for at least some portions of the Site. In addition, contrary to statements in MMP Sections 3.4 F. and G, Stantec did not meet the requirements for 2-ft intervals for sediment samples under NR 347, identified in the DNR memo dated 26 February 2021.

3. Unavailability of Environmentally Suitable Alternatives. Please list all other specific alternatives to on-site materials management that were considered. Explain why those alternatives cannot be pursued for at least some of the material volume beyond reasons of economic feasibility. For example, explain why clean material can't be segregated and used as fill for other projects in the City of Superior or improvements to the C. Reiss Dock property in Duluth. Explain why material with the highest levels of contamination, those above industrial direct contact levels, cannot be disposed of off-site given the proximity of licensed landfills reasonably close to the Site.

4. Provide an operation and maintenance plan (O&M Plan) for the cover system so that we can evaluate the effectiveness of the proposed system during our review of the MMP. In addition to the items specified in NR 724.13, the O&M Plan should identify how trees will be controlled to protect the integrity of the cover system. The O&M Plan should also describe the mowing frequency of the cover systems, including the slopes of the disposal berms. The O&M Plan, conceptual O&M Plan, or draft O&M Plan needs to be submitted with the MMP, not at some unspecified time in the future.

5. We are concerned the proposed project may adversely impact wetlands at the Site, in addition to direct impacts that other approvals may have authorized. Provide additional detail on how the project will avoid and minimize impacts on wetlands. Evaluate further actions that could be taken to ensure wetland functions are protected and that the proposed activities will not result in illicit discharges from contaminated runoff or failure of the berms.

6. Did you consider consolidating the contaminated materials into a single berm, off-site disposal, partial off-site disposal, or beneficial use to avoid and minimize potential wetland impacts?

7. More detail is needed on how the berms will be constructed, such as the number and thicknesses of lifts, compaction needs and methods, slopes, and other technical details. Also, identify construction quality control measures that will be employed during the construction of the berms.

8. Wetlands at the Site were delineated by Stantec as documented in the 28 October 2019 Assured Wetland Delineation Report for the Reiss Superior Dock (Delineation Report). Four disposal berms are proposed close to wetlands identified in the Delineation Report as Wetlands W1, W2, and W3. Table 2 in the Delineation Report identifies Wetland W1 as 2.65 acres of wet meadow/hardwood swamp, Wetland W2 as 0.33 acres of hardwood swamp, and Wetland W3 as 0.49 acres of sedge meadow. Direct impacts are shown for Wetlands W1, W2, and W3 in the MMP and materials provided to the City of Superior SAMP program. However, the MMP includes little to no discussion of the direct impacts and may not have considered indirect impacts to the wetlands from constructing the berms and ditches. Hardwood swamp and sedge meadow wetland types are highly susceptible to changes in hydrology and water chemistry from development. Wet meadows not dominated by reed canary grass are moderately susceptible to stormwater runoff. Wet meadows can usually tolerate short periods of increased hydrology such as storm bounce, discharge rate, and inundation period (https://www.pca.state.mn.us/sites/default/files/wq-strm1-07.pdf). Include more discussion and details of direct and indirect wetland impacts from the construction of the berms or development of the Property.

9. Provide hydrologic calculations for each wetland for the current and proposed conditions following the construction of the four disposal berms and cover system and identify potential changes in: drainage characteristics or flow, water levels, water retention time, volumes reaching wetlands via subsurface flow and surface runoff, sediment loading, nutrient loading, contaminant loading, and the vegetated community. Explain how wetland hydrology will be maintained given the tall berms of contaminated materials to be constructed within 100 feet of the wetlands and where wetlands are being ditched.

10. For each proposed disposal berm, provide calculations and specific cross-sections to demonstrate that the proposed temporary diversion berms will not be overtopped during a 2-year frequency, 24-hr duration storm per DNR Technical Standard 1066. Also, consider the amount of water present within the diversion berms from the proposed gravity dewatering of sediments, i.e., interstitial water. The details provided in the plan set are minimum requirements from DNR 1066. Prove that the minimums in the detail will contain both the interstitial water and stormwater or provide specific construction details for berm dimensions needed to contain the water and associated contaminants during construction. Given that contaminated materials will be placed and that gravity dewatering of sediment within the berms is suggested, larger berms should be considered necessary to provide containment until the cover system is constructed, after which standard stormwater erosion and sediment BMPs may suffice.

11. Sediment Dewatering – Additional detail is needed on how carriage and interstitial waters will be managed during dredging activities. Dredged material composed of silty clay generally requires the addition of stabilization agents to drive out the water and give it strength for stockpiling/disposal. If the plan is gravity dewatering, there are concerns about unauthorized discharges of the spoil or interstitial waters into the adjacent wetlands or surface waters. Without additional agents, silty clay sediments can take a long-time to dewater on their own.

12. Explain how water collected by the diversion berms placed around sediment dewatering areas and contaminated soil disposal berms will be conveyed to the treatment system. Include more details on pumping, sump locations, and other information relevant to the containment, collection, and treatment of water contaminated by contact with impacted materials. The current plans indicate that water may be allowed to overtop berms and enter the adjacent wetlands or the ditch along the proposed road/railbed.

13. Before placement of the clay layer for the cover system, any runoff from contaminated material berms that are transported by runoff or other means, and captured by the BMPs, may not remain in that location permanently. Include provisions for collecting and disposing of contaminated materials captured by BMPs before cover system construction. The construction sequence needs to include a specific step to inspect BMPs and relocate accumulated sediment (contaminated material) into the disposal berms immediately before cover system construction. Also identify provisions for inspecting, collecting, and disposing of contaminated materials that may escape containment and move beyond BMPs.

14. Wastewater- As discussed in a 27 July 2022 email string between Brian Lennie of Stantec and myself, the performance standards for soil and sediment erosion control practices for construction site runoff differ from those for wastewater treatment of carriage and interstitial water associated with the dredged material. The pond may need to be evaluated and reviewed as a treatment system under Wis. Stats ch. 281 and Wis. Admin Code NR 108 for wastewaters generated during dredging or contaminated contact water management. In addition, a WPDES permit is likely needed for discharges of the wastewater before conversion of the pond for stormwater management. For more information, contact Leila Jenkins (Leila.Jenkins@wisconsin.gov) or Jason Knutsen (Jason.Knutson@wisconsin.gov).

15. Identify the source of the clay used for the cover systems and pond liner and describe characteristics for acceptability for use in the proposed cover system.

16. Provide additional detail for constructing the pond liner using clay or other materials and describe how water will be managed during pond liner construction.

17. Explain how contaminated materials that accumulate in the pond will be characterized, removed, and disposed after dredging and cover system construction is complete before the pond is transitioned from wastewater treatment to stormwater management functions.

18. Section 1.0 Overview indicates that a cap will be placed over contaminated soil and sediment to address direct contact concerns. The plans identify the placement of cap and cover materials over a portion of the Site. How do you plan to address direct contact concerns for soils beyond the limits of disturbance for the dock improvements? Figure 4 contains a map illustrating the proposed extent of the post-construction cover system. While construction equipment is on-site, you may want to consider expanding the cover system in strategic locations where Wis. Admin. Code s. NR 720.12 direct contact residual contaminant levels (DC-RCLs) are likely exceeded in locations identified as non-disturbance areas. For example, is it protective of human health to leave exceedances of industrial DC-RCLs in surficial soils near the proposed buildings and stormwater pond? Is it realistic to assume that the thin strip between the swale and building area will not be disturbed during this construction?

19. Section 2.2 says, *"All excavated material will either remain on-site and be covered with an engineered surface barrier or transported off-site for proper disposal at a licensed landfill if needed."* Identify volumes and sources of excavated materials that will be transported off-site for disposal and the name of the landfill(s) that will be used if known.

20. Section 2.2 Material Movement and Management, second paragraph – the stormwater pond excavation in Figure 3B extends up to 21' bgs. The surface elevation at this location is approx. 622-626' (based on available lidar data). The closest monitoring wells (MW) are MW-38S and MW-48W, and MW-49S, with groundwater elevations of 610.9, 623.3, and 620.49, respectively. This area's wells are confined because of the overlying clay layer. It appears the stormwater pond will extend below the water table and may breach the confining clay layer. Excavations to depths of 15 to 20' bgs are planned along portions of the proposed railroad layout. Address how water will be managed for the construction and operation of the pond and identify expected changes in the migration of NAPL or dissolved phase contaminants with groundwater discharging via the stormwater pond or ditch along the proposed railroad access road.

21. Except for SB19, which went to 16 ft, most of the soil borings terminated at a depth of 10 to 12 feet, which is well above the maximum cut depths shown in the plans. Please explain how the depth of the available borings provides adequate information to determine appropriate management and reuse of contaminated materials on the Site.

22. Section 2.2, fourth paragraph - Identify where the two eight-inch buried/inactive petroleum pipelines will be abandoned and where the pipes will be removed. Alternatively, clarify the extent of these lines on the Property that will be removed. Please provide any necessary documentation from the Wisconsin Department of Agriculture Trade and Consumer Protection (DATCP) regarding the abandonment of the petroleum pipeline. DATCP contact is Greg Bareta (Greg.Bareta@wisconsin.gov). Document pipeline abandonment in construction documentation report.

23. Section 2.2, fifth paragraph – says, *"Dredged sediments and excavated contaminated soils associated with the stormwater pond, building foundations, and utility trenches will generally be placed within the large soil berm in the center of the Property (herein referred to as Material Management Unit 1 "MMU 1"). Excess impacted soils associated with the redevelopment unable to be reused within the proposed railroad line or MMU1 are planned to be placed within the three smaller soil berms proposed on the southern portion of the Property (refer to Figure 4)."* Include a table with the design capacity (volume) for each disposal berm and volumes and the location of origin of the materials to be placed in each disposal berm.

24. Section 2.2, paragraph 6 indicates that potentially impacted groundwater may accumulate in areas requiring removal and disposal requirements are to be determined. Please identify specific locations where contaminated groundwater is expected to be encountered. Also, identify when and how disposal requirements will be determined. Please note that erosion and sediment control BMPs for construction sites may not be adequate as the sole means to manage contaminated groundwater or runoff from contaminated stockpile areas, at least until after the cover system is constructed.

25. The grading plan described in section 2.3 and Attachment A lacks sufficient details of the origins and disposition of contaminated materials. Add detail to the MMP on the origins and placement of contaminated material. In addition, for each disposal berm, include descriptions of the final slopes as a ratio of horizontal to vertical distance (e.g., 3H:1V).

26. Section 2.5 - It is unlikely that the available waste characterization results will represent any excess impacted material that is unsuitable for reuse. Identify the required analytical testing and thresholds for determining material that will be deemed unacceptable for reuse at the Site.

27. Section 2.6 – Provide more detail on the methods and construction specifications that will ensure impacted material will not be placed beyond the depth from which it was excavated. Expand on how this will be tracked and monitored during construction to ensure excavated contaminated material is not placed deeper than where it originated.

28. Section 2.7 – add that the construction documentation report will include as-built drawings for the Site, including topographic elevations. A topographic survey will be needed after the disposal berms, and site work is completed. The construction documentation report also needs to include as-built calculated volumes of removed soil/sediment and berm construction and a figure showing differences from the plans included with the MMP. Section 2.10 Construction Documentation Report – should contain a bullet stating that documentation of any contaminated soils encountered will be provided, including tabulated soil contaminant data and figures depicting the location where the soil was found and where it was placed on Site and capped.

29. Section 2.9 – Identify the porosity and hydraulic conductivity of the reportedly "impermeable" compacted sub-ballast stone and ballast stone. Provide this same information for the gravel access roads. Please provide specifics on practices that will be used to compact materials in the disposal berms, access roads, and railbeds.

Clarify if a clean soil cap (including native grass seeding) will be included on the north end of the Property where the green symbol indicates seeded areas with an 18" cap are shown in Fig 4B and 4C.

30. Section 2.9 – The horizontal and vertical degree and extent of soil contamination for arsenic and benzo(a)pyrene (BaP) have not been delineated on the north portion of the Site. Specifically, at STN20, arsenic concentrations of 52 and 31 mg/kg were detected from the ground surface to a depth of at least three feet. Additional investigation appears to be needed, and the site investigation results will determine if remedial action is necessary. It is possible to address BaP exceedances of the DC-RCL through a site-specific DC-RCL that would utilize a $1x10^{-5}$ target risk for carcinogenic PAHs only. If interested in this option, submit a Technical Assistance Request using Form 4400-237 and a fee of $1,050.

31. Section 3.4 Waste Characteristics, Part B – the site materials being managed are described as fill materials. It is unclear if the cut depths shown at the proposed building site will remove all contaminated soil. The Site has an average of 0.25 to 12 feet of fill throughout. Explain why a Historic Fill Exemption was not requested, especially for the planned building locations.

32. The number of samples does not meet the minimum required in Wis. Admin. Code § NR 718.12 (1)(e), and DNR has not yet approved otherwise. Based on the available information, DNR cannot concur that the soil material has been adequately characterized. How consistent are the characteristics of the material to be disposed of? Is the material homogeneous, or are the pockets of heterogeneity in the material to be disposed of? Are the available sample results representative of the Site as a whole, or are some locations notably different, and as such, do they warrant special considerations for management?

33. More detail is needed on the criteria that will be used to distinguish between highly contaminated material versus material with lower contamination levels. What thresholds will be applied? Describe how more highly contaminated materials will be segregated and managed apart from clean soil or materials with lower levels of contamination.

34. Table 1: includes soil analytical results for SB1 to SB5, yet SB1-SB5 are not shown in the figures. Show SB1- to SB5 on appropriate figures, such as Figs 2A to 2C.

35. Include a table(s) with all available sediment sample results, including those collected by others, since 2015.

36. Provide stand-alone figures in the MMP of the proposed final contours (grading plan). There are numerous plan sheets in the appendices, and separate explanatory figures in the MMP will expedite our review.

37. Include figures showing contaminated soil areas and approximate depths of contamination for the available soil borings.

38. Include a figure showing the depth to groundwater as indicated on form 4400-315. C. Reiss and its consultant are responsible for providing this as part of the Submittal. It is not appropriate to state that pertinent information can be found in the Amoco BRRTS case files.

39. A copy of the deed or deeds for the Property is needed as an additional attachment under form 4400-315.

40. PDF submittals should include functional bookmarks matching all document sections, including main text headings, tables, figures, and attachments.

41. Comment for the record - You may want to consider conducting a vapor intrusion assessment before building the buildings. The evaluation may or may not show the need to investigate the vapor intrusion pathway or to consider potential engineering controls.

Please do not hesitate to contact me with questions. We would be happy to meet with you to discuss the contents of this letter and redevelopment of the Site.

Sincerely,

Joseph Graham

Joe Graham,
Project Manager,

Cc: Chris Saari, DNR RR/Ashland
Matt Jacobsen, DNR Stormwater/Ashland
Steve LaValley, DNR Wetlands/Superior
Leila Jenkins, DNR Wastewater/Superior
Darienne McNamara, City of Superior SAMP
Bill Sande, USACE St Paul Regulatory
John Hunt, DNR RR/Peshtigo
Greg Bareta, DATCP
Meaghan Kern, USEPA/GLNPO