



3 April 2024

C. Reiss Company, LLC
Christian Zuidmulder, General Manager
111 West Mason Street
Green Bay, WI 54303

Subject: Unauthorized Waste Management, Incomplete Site Investigation, and Responses to Exceedances of Groundwater Quality Standards
C. Reiss Coal Dock Property, City of Superior, Douglas County, WI
Parcel IDs 04-804-01014-00 and 04-804-01003-00
DNR BRRTS Activity #02-16-589248, FID #816130810

Dear Christian:

On 17 February 2023, the Wisconsin Department of Natural Resources (DNR) conditionally approved the management of contaminated soil and dredged material on the C. Reiss Coal Dock Property in the City of Superior at the above-referenced parcel IDs (Site) under Wis. Admin. Code § NR 718.12 and § NR 718.15 (NR 718 Approval). The NR 718 Approval was based on waste characterization and other information available to the DNR at the time. It included specific exemptions to locational criteria contained in Wis. Admin. Code § NR 718.12(1)(c) for material management. The approval consists of a single disposal berm for on-site management of contaminated soil and sediment, designated as material management unit 1 (MMU 1). On this date, DNR issued a second letter conditionally approving the Site Investigation Report (SIR); the SIR approval stated:

“Considering the above comments, the DNR conditionally approves the SIR and believes the Site investigation efforts are sufficient to move forward with the proposed redevelopment and materials management activities at the Site (i.e., the interim action) described in the documents above. **This approval is conditioned on the ultimate completion of additional investigation of the locations identified above to define the degree and extent of contamination and sources of contamination, evaluate the need for further actions, select and design a remedial action, if necessary, and obtain closure of the BRRTS activity. You should consider completing site investigation and remedial action activities prior to or in conjunction with the planned redevelopment of the Site.**” (emphasis added)

The C. Reiss Company, LLC (C. Reiss), the United States Environmental Protection Agency (USEPA), and DNR entered a project agreement under the Great Lakes Legacy Act (GLLA) on 23 June 2023 to remediate contaminated sediment at the C. Reiss Dock (BRRTS # 11-16-592891). In consideration of the collaborative nature of the GLLA project, the DNR provided input and guidance to C. Reiss and its consultants on the sediment contamination, site investigation, and on-site management of the contaminated soil and sediment at this Site. Although much of our input has been heeded, some activities at the Site and your consultant’s interpretations of applicable regulations seem contrary to your objective for site closure at the end of the project. Decisions that are being made now for the Site may necessitate additional site investigation and remedial actions for closure of BRRTS # 02-16-589248.

Unauthorized Waste Management:

Construction to redevelop the Site started in 2023 and continues to date. On 21 November 2023, Stu Gross of Stantec submitted an email status update on the construction of the stormwater pond and the conditions

encountered during its installation. The DNR acknowledged receipt of Stu's message on 27 November 2023. A saturated silty sand material with a hydrocarbon odor (impacted material), presumably from documented groundwater contamination originating from the east-adjointing property, was encountered when excavating the southern portion of the pond. Excavation work was paused. Stantec provided a proposed material management approach and Stormwater Pond Exhibit (Stantec's plan). Stantec's plan identified that the impacted material would be excavated and used as a subgrade for the berm to be built for the forebay of the pond (forebay berm). The stormwater pond is not identified as a location where waste material would be managed in Figures 4A, 4B, and 4C, Site Cover Extent, prepared by Stantec and dated 6 October 2022, that DNR used for the NR 718 Approval. Additionally, the forebay berm is not shown in these exact figures. Stantec's plan also described that excess impacted material was to be placed at a designated location in the approved waste disposal berm (MMU 1) and covered with plastic sheeting. Work was to resume the week of 27 November.

The stormwater pond is outside the footprint of MMU 1, and the impacted material used for the subgrade of the forebay berm has not been adequately characterized. Management of impacted material that was excavated and used as subgrade in the forebay berm of the stormwater pond does not meet the terms of the NR 718 Approval. Therefore, the impacted material could not remain under the forebay berm. I visited the construction site with City of Superior staff on 20 March 2024. Kyle Moberg of Stantec was present towards the end of our visit. I spoke to Kyle about this letter and DNR's concerns with the impacted material under the forebay berm. Kyle sent DNR an email on 22 March 2024 indicating that the impacted material was removed from beneath the forebay berm to take advantage of dry weather and included three photos. Thank you for being proactive on this. Please provide details on the location(s) where the impacted material from the forebay subgrade was placed in the construction documentation report.

The NR 718 Approval was for on-site management of contaminated soil and sediment under Wis. Admin. Code ch. NR 718. Tires and salvageable materials (scrap metal) are not included in the NR 718 Approval. I observed and photographed tires and scrap metal intermingled with soil during my 20 March 2024 Site visit. These items were on the ground, apparently within the footprint of MMU 1, next to the proposed access road and east of where the metal maintenance building is being constructed. A bright green roll-off container was also observed nearby, west of the access road towards the building and subcontractor's trailer. I did not see any other roll-off containers near the waste disposal berm. A short section of a larger diameter pipe filled with green and brown solid material spilling out from it was also observed at the southeast end of MMU 1. I showed Kyle photos of this pipe while at the Site, and he indicated in his 22 March 2024 email that the pipe had been removed for offsite disposal. You must ensure that tires, salvageable materials, and waste other than contaminated soil and sediment are segregated for offsite disposal or recycling to maintain authorization for on-site management of the contaminated soil and sediment.

On 14 March 2024, Matt Jacobson of the DNR stormwater program conducted a site inspection and identified a location where coal dust or coal was used to construct a diversion berm for the contaminated soil. Matt issued a notice of noncompliance regarding this and other items on 15 March 2024. The diversion berms are intended to contain the waste material within MMU 1 and collect any waste soil/sediment and associated contaminants during precipitation or snowmelt events during construction. On 20 March 2024, I observed coal or other waste soil sitting on the erosion matting at or near the top of the diversion berm in at least one location. Additionally, waste material is stacked relatively high immediately next to the diversion berms, and some waste material may already be reducing the capacity for water collection behind the berm. The waste is steeply piled in some locations, making it unclear how the material was placed in lifts, as stated in the material management plan prepared by Stantec. The containment system around the waste must be constructed using appropriate material and adequately maintained to contain the waste and associated contaminants within the approved footprint of MMU 1. It would be best if you were particularly attentive to controlling and containing the waste until the final cover is constructed to ensure hazardous substance discharges outside the berms do not occur during wet weather events or when placing contaminated soil or dredged sediment. If the waste material is not contained during construction, you risk having to complete additional investigations or take additional remedial actions.

Incomplete Site Investigation:

On 30 January 2024, Stantec submitted a *Supplemental Site Investigation Report* for the C. Reiss Dock Property, BRRTS Case No. 02-16-589248, dated 29 January 2024 (SSIR), on your behalf. A fee for DNR review of the SSIR was not included, but we are providing a review given the complexity of the Site.

Also, on 30 January 2024, Whitney Cull of Stantec sent DNR an email about the SSIR and updates on construction at the Site. Among the updates was a notification that monitoring well MW20, which was installed in May 2023 to assess arsenic levels in groundwater, was made inoperable when a haul truck ran over it in December 2023. Stantec reported that the construction contractor was in the process of abandoning the well. Stantec indicated that documentation for the well abandonment would be provided to DNR once completed, anticipated to be in February 2024. Samantha Schmidt from Braun Intertech exchanged emails with Grant Neitzel of the DNR on 31 January 2024 about sealing off a sheared well at the Site and the documentation needed, i.e., DNR Form 3300-005.

On 2 February 2024, I sent you an email about the status of our review of the SSIR and contaminated soil in the stormwater pond. I also advised that C. Reiss make efforts to rehabilitate MW20. Kyle Moberg replied, indicating that the damage was too extensive for repairs, that the well was abandoned that day, and that he would discuss the timing of replacing MW20 with Northland, the construction contractor. Documentation for the abandonment of MW20 needs to be submitted to DNR. The DNR recommends C. Reiss replace MW20, provide the associated construction documentation to the DNR, and collect and analyze groundwater samples for arsenic per Wis. Admin. Code chs. NR 716 and NR 140.

The SSIR does not include all the necessary figures to evaluate the site investigation. Figures 2 and 3 in the SSIR contain air photos showing the soil boring locations near the former briquette manufacturing facility and MW20 area, respectively. Site features, such as the footprint of the stormwater pond, access roads, salt pad, rail, and so forth, are not shown. The necessary site investigation figures with site features are needed as required under Wis. Admin. Code NR 716 for the former briquette manufacturing and MW-20 areas.

DNR does not concur with Stantec's assertion in the SSIR that further investigation is not required. Additional investigation is needed to define the degree and extent of arsenic contamination in the MW20 area. Assessment of the groundwater to surface water contaminant transport pathway to the St. Louis River is necessary. The field investigation needs to evaluate pathways for migration of contamination, known or potential impacts on habitats and ecosystems sensitive to contamination, and the extent of contamination per Wis. Admin. Code § NR 716.11.

In the SSIR, Stantec applies thresholds of 11,000 ug/kg benzo(a)pyrene and 15 mg/kg arsenic for what it considers the "typical" levels associated with fill materials present across the property. The derivation of these values and Stantec's proposed application is not clear and does not meet the requirements for DNR approval. You should be aware that DNR approval is needed for any alternative approaches for determining standards exceedances (i.e., NR 720.07(2)), methods for determining background (i.e., NR 720.07(3)), or site-specific residual contamination levels for direct contact (i.e., NR 720.12(2)). C. Reiss will need to prepare and submit a technical document for any approach it wants to propose using instead of the default Wis Admin. Code ch. NR 720 soil standards. To obtain DNR concurrence or approval of an alternative approach, a Technical Assistance Request using [form 4400-237](#) and appropriate fees will need to be submitted to DNR.

Response to Exceedances of Groundwater Quality Standards:

Prior to its destruction in December 2023, monitoring well MW20 was sampled twice for arsenic, on 2 May 2023 and 21 June 2023, with results of 17 and 20 mg/L, respectively. These results exceed the public health groundwater standards for arsenic: enforcement standard (ES) of 10 mg/L and preventive action limit (PAL) of 1 mg/L in Wis. Admin. Code ch. NR 140, Table 1. The location of MW20 is about 57 feet from the shoreline of the

St. Louis River. The shoreline immediately north of MW20 is eroding based on observations of bare soil and measurable changes in air photos available from Douglas County, including the increasing area of the exposed concrete structure. Arsenic is carcinogenic, and although not directly comparable, groundwater contaminant concentrations would exceed applicable surface water criteria for arsenic in Wis. Admin. Code ch. NR 105 (Exhibit 1).

In response to exceedances of the ES, under Wis. Admin. Code § NR 140.26, the DNR is requiring quarterly groundwater monitoring in the MW20 area to assess trends in groundwater quality and evaluation of options for an interim action or remedial action for arsenic in the MW20 and eroding shoreline areas prior to redevelopment activities. Additionally, residual soil contamination shall not adversely affect surface water per Wis. Admin. Code § NR 720.07(1)(c).

Your cooperation with the actions identified in this letter is appreciated.

Please do not hesitate to contact me at (715) 292-4925 or Joseph.Graham@Wisconsin.gov with any questions.

Sincerely,



Joseph Graham,
Project Manager

cc: Brian Lennie, via email Brian.Lennie@stantec.com
Stu Gross via email stu.gross@stantec.com
Whitney Cull via email Whitney.Cull@stantec.com
Kyle Moberg via email kyle.moberg@stantec.com

Attachments:

Exhibit 1 – Comparison of Arsenic at MW20 to Standards and Superior Sewage

Exhibit 1

C. Reiss Coal Dock., BRRTS # 02-16-589248 Monitoring Well MW20



		Groundwater Criteria		Surface Water Criteria		Local Municipal Wastewater ¹		
		PAL	ES	HCC PWS GL	HCC GL	Superior WWTP Limit	Superior WWTP Influent	Superior WWTP Effluent
	µg/L	1	10	0.2	13.3	2.2	1.8	1.1
MW20	Result	Hazard Quotient				MW20 : WWTP		
05/02/2023	17	17	1.7	85	1.3	7.7	9.4	15.5
06/21/2023	20	20	2	100	1.5	9.1	11.1	18.2

		Groundwater Criteria		Surface Water Criteria		Local Municipal Wastewater ¹		
		PAL	ES	HCC PWS GL	HCC GL	Superior WWTP Limit	Superior WWTP Influent	Superior WWTP Effluent
	µg/L	1	10	0.2	13.3	2.2	1.8	1.1
MW20	Result	Hazard Quotient				MW20 : WWTP		
05/02/2023	17	17	1.7	85	1.3	7.7	9.4	15.5
06/21/2023	20	20	2	100	1.5	9.1	11.1	18.2

MW20 – Monitoring well 20, C. Reiss Dock Property, Superior, WI BRRTS # 02-16-589248

µg/L – Microgram per liter, aka parts per billion

PAL - Preventive Action Limit, Wis. Admin. Code ch. NR 140

ES – Enforcement Standard, Wis. Admin. Code ch. NR 140

HCC GL PWS – Human Cancer Criteria, for Great Lakes-public water supply, Wis. Admin. Code ch. NR 105. Applicable to discharges in St. Louis Bay and Superior Bay. NOTE: For bioaccumulative chemicals of concern (BCCs) within the Great Lakes basin, criteria are based on a classification as a cold-water community and public water supply².

HCC GL – Human Cancer Criteria for Great Lakes non-public water supply, Wis. Admin. Code ch. NR 105. For comparison only, criterion not applicable at location.

WWTP – Wastewater treatment plant

WWTP Limit – Effluent limit applicable to City of Superior WWTP

WWTP Influent – Mean concentration of raw wastewater flowing into WWTP. Mean of 19 quarterly samples, range 1.2 to 2.4 µg/L

WWTP Effluent – Mean concentration of treated wastewater discharged from WWTP. Mean of 19 quarterly samples, range < 0.44 to 1.8 µg/L

Red shading: MW20 result exceeds criteria or comparison

Bold values: applicable groundwater and surface water criteria (ES and HCC PWS GL)

¹ WDNR 2023, Discharge Monitoring Report data for the Superior Sewage Disposal System (WPDES Permit # WI-0025593), April 2019 through October 23, accessed February 1, 2024.

² WDNR 2017, DNR Memorandum from Jim Schmidt to Sheri Snowbank, Water Quality-Based Effluent Limitations for the Superior Sewage Disposal System (WPDES Permit # WI-0025593), November 29, 2017.

From: [Graham, Joseph R - DNR](#)
To: [Christian Zuidmulder](#)
Cc: [Lennie, Brian](#); [Gross, Stu](#); [Cull, Whitney](#); [Morberg, Kyle](#); [Graham, Joseph R - DNR](#)
Subject: Unauthorized Waste Management, Incomplete Site Investigation, and Responses to NR 140 ES Exceedances
Date: Wednesday, April 03, 2024 5:50:08 PM
Attachments: [20240403_99_LTR_Waste_SI_ES_Exceedance.pdf](#)

Christian and others,

Attached is a letter in follow-up to the Supplemental Site Investigation Report and my visit to the C. Reiss Dock site in Superior site on 20 March 2024. My apologies for the delay in getting this to you, but as you know there is a lot going on at the site.

I would be happy to have a call with you or your consultants if you have any questions.

Please reach out if you would like to discuss. I will be in the office tomorrow and some of the day Friday, but out April 8 to 10.

Sincerely,

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Joe Graham

Contaminated Sediment Expert
Remediation & Redevelopment
Wisconsin Department of Natural Resources
Cell: (715) 292-4925
joseph.graham@wisconsin.gov



dnr.wi.gov

