

From: Paul Lindquist <PLINDQUIST@ramboll.com>
Sent: Tuesday, August 2, 2022 3:47 PM
To: Beggs, Tauren R - DNR
Cc: Kristin Jones (Kristin.Jones@newellco.com); Adam Tegen; Byers, Harris; Jeanne Tarvin; Susan Petrofske
Subject: BRRTS #: 02-36-545108 (MIRRO PLT 9 [Former] - LGU)
Attachments: FW: 0236545108: Other; 02-36-545108_NR 716 SIWP-Response to Comments.pdf

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Good afternoon Tauren,

The attached letter has been prepared in response to the WDNR letter, *Review of the Site Investigation Letter*, received on July 12, 2022 for the Mirro Plant No. 9 (Former) (BRRTS: 02-36-545108) and has been uploaded to the WDNR portal. A copy of the document and the confirmation of the upload is attached.

Please let me know if you have any questions.

Paul Lindquist

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Sent via WDNR RR Portal

Mr. Tauren Beggs
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

**RESPONSE TO WDNR COMMENTS ON THE
ADDITIONAL SITE INVESTIGATION WORK PLAN
FORMER MIRRO PLANT NO. 9 SITE
1512 WASHINGTON STREET, MANITOWOC, WISCONSIN
BRRTS NO. 02-36-545108**

Dear Mr. Beggs:

Ramboll US Consulting, Inc. (Ramboll), on behalf of Newell Operating Company (NOC), would like to thank you for the timely review of the *Additional Site Investigation Work Plan* (SIWP) submitted to the Wisconsin Department of Natural Resources (WDNR) on June 3, 2022, for the former Mirro Plant No. 9 site (the "site") located at 1512 Washington Street in Manitowoc, Wisconsin. The objective of this *Response to WDNR Comments on the Additional SIWP* is to address the comments provided by the WDNR in their July 12, 2022, *Review of the Site Investigation* letter.

August 2, 2022

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NOC's responses to WDNR's comments are provided below and are based on our current understanding of site conditions and additional work being requested by the WDNR. For ease of review, the WDNR's comments are included in italicized font below.

WDNR COMMENTS REGARDING REVIEW OF THE SIWP

Ref. 1690019647

- *Ramboll is requesting approval to change notification from 10 to 15 business days of receiving lab analytical due to additional time required to perform quality assurance review of PFAS data. The DNR concurs with the alternative sampling results notification from 10 days to 15 days, which is approvable on a case-by-case basis under Wis. Admin. Code § NR 716.14(3).*

Response

Comment acknowledged.

- *DNR recommends another monitoring well be installed downgradient of MW-226 at this time, so it can be included in the one year of monitoring for PFAS.*

Response

Based on water elevations measured on May 24 and December 8, 2021, shallow groundwater appears to flow south/southwest from MW-226 towards the Sherman Creek stormwater feature. The *Additional SIWP* includes installation of additional monitoring wells between MW/PZ-226 and AMEC MW-16/MW-16A to provide a better understanding of groundwater flow direction. Based on our

current understanding, these two wells are “downgradient” of MW-226. At this time, Ramboll does not intend to install a monitoring well north of MW-226 toward Clark Street for per-and polyfluoroalkyl substances (PFAS) delineation. If future quarterly groundwater monitoring events indicate groundwater flow is variable, the installation of a monitoring well north of MW-226 will be reevaluated.

- *Include MW-204 and MW-213 in the four quarterly rounds of PFAS sampling.*
- *Include MW-217 and MW-219 in the four quarterly rounds of VOC sampling.*
- *Include AMEC-MW-14 for aluminum, AMEC-MW17 for antimony, and MW-6 for lead in the 1st and 3rd quarterly rounds of sampling.*
- *Depending on results of the additional groundwater sampling outlined above, additional site investigation may be needed.*

Response

Comments are acknowledged. The *Additional SIWP* Table 1 (Groundwater Monitoring Program) has been updated to reflect these additions and is included as Attachment A.

- *Additional PCB sampling in groundwater at MW-6, MW-19, and MW-25.*

Response

The groundwater monitoring program will be updated to include the collection of semi-annual groundwater samples from MW-6 and MW-19 for PCB analysis. Monitoring well MW-25 was abandoned by Stantec during the underground storage tank (UST) removal work performed in June 2021 and is no longer available for sampling. The *Additional SIWP* Table 1 (Groundwater Monitoring Program) has been updated to reflect that MW-25 has been abandoned.

- *After televising the utility tunnel beneath South 16th Street, determine a feasible method for collecting a vapor sample from the utility tunnel.*

Response

Ramboll is aware of a possible access location for the utility tunnel located beneath South 16th Street on the property to the west of the site located at 901 South 17th Street. Once access is granted, televising activities will be attempted, and efforts will be made to discern if a viable vapor sample location is available.

- *The information provided for utility backfill is not sufficient, so the previous recommendation from DNR still applies. DNR still recommends sampling utility backfill or providing a more detailed justification as to why it is not a potential preferential pathway.*

Response

Based on soil borings completed adjacent to South 16th Street, Franklin Street, and South 15th Street, fill is encountered just beneath the asphalt/concrete to approximate depths ranging from 2 to 13 feet below ground surface (ft-bgs). The fill is generally described in the soil boring logs as “fine to medium grained sand with little silt, varying amounts of gravel,” and containing “the occasional cinder/ash.” The description of the fill is consistent with coarse grained material typically used as “utility backfill.” Beneath the fill is generally sand with silt with a similar grain size. The cross section figures developed for the *Site Investigation Report* (SIR) (SIR Figure 11 and Figure 12) show the distribution of fill and sand with silt along the road and right-of-way areas.

The WDNR developed the document *Guidance for Documenting the Investigation of Human-made Preferential Pathways Including Utility Corridors* (RR-649), published in June 2021, which describes the potential scenarios where vapor migration through utility backfill is possible.

Bedding and backfill materials for utility corridors often have properties that allow migration of contaminants more readily than the native materials that surround them. Preferential movement of vapor can occur in bedding materials in some situations (e.g., short distances along sewer laterals, strong pressure gradients); however, few investigations have documented vapor movement at significant distances in unsaturated bedding materials. Migration within the utility pipe rather than the surrounding bedding is currently recognized as being a prevalent concern for contaminant vapor migration.

Given the generally similar characteristics of the site fill soil and utility backfill, a strong pressure gradient is not reasonably expected. As such, the utility backfill is not considered a preferential pathway for potential impacted vapor migration. The “path of least resistance” would point to open channel pipes (e.g., sanitary sewer or storm sewer feature). Further investigation of preferential migration pathways via the sanitary sewer and storm sewer utilities will be completed as part of the Work Plan.

- *No information was provided for vapor assessment of off-site properties, so the previous recommendation from DNR still applies. Evaluate whether off-site properties to the west screen in for vapor sampling per the VOC screening criteria in Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin (RR-800) due to residual VOC contamination. This includes the chlorinated VOC impacted soil screening criteria.*

Response

Ramboll reviewed the RR-800 screening criteria and off-site vapor intrusion investigation is not prompted by residual petroleum volatile organic compound (PVOC) impacts based on the screening criteria presented in Section 3.5 of the guidance document. The following provides a summary and discussion of the screening criteria outlined in Section 3.4 related to chlorinated volatile organic compound (CVOC) impacts and off-site properties to the west.

Soil: WDNR guidance recommends vapor investigation if a building is located over or within 100 feet of CVOC impacted soil. Soil boring SB/MW-209 installed along the western portion of the site is the only location within 100 feet of an off-site building where CVOCs were detected. Soil boring SB-209 is installed on site along South 16th Street and installed approximately 75 feet west of the off-site industrial property located at 901 South 17th Street. Two soil samples were collected from the fill soil above the water table from SB-209 at the 0.5 to 1 ft-bgs interval (SB-209 [0.5-1]) and 6 to 7 ft-bgs interval (SB-209 [6-7]) and completed as a monitoring well (MW-209). Trichloroethene (TCE) concentrations in both SB-209 soil samples were above the Wisconsin Administrative Code (WAC) NR 720 groundwater pathway Residual Contaminant Level (RCL) of 0.0036 milligram per kilogram (mg/kg) at 0.039 mg/kg (SB-209 [0.5-1.5]), and 0.032 J mg/kg (SB-209 [6-7]). These detections are well below the WAC NR 720 non-industrial or industrial direct contact RCLs of 1.3 mg/kg and 8.41 mg/kg, respectively. The two detections of TCE in soil samples from SB-209 (0.5-1.5) and SB-209 (6-7) are slightly above the method detection limit of 0.013 mg/kg. The concentration of TCE in SB-209 (0.5-1.5) was slightly above the reporting limit of 0.038 mg/kg.

These low-level detections are not indicative of a CVOC source area which is further supported by additional soil sample data from nearby soil boring SB-108 (0-1), completed by Stantec in 2019 and located approximately 30 feet southeast of SB-209, was analyzed for VOCs and no CVOCs were

detected. Soil borings completed by Ramboll approximately 150 feet north (SB/MW-210) and south (SB/PZ/MW-200) were both analyzed for VOCs and no CVOCs were detected.

Groundwater: WDNR guidance recommends vapor investigation if a building overlies groundwater with CVOC concentrations above the WAC NR 140 Enforcement Standards (ES) or in groundwater with concentrations above the WAC NR 140 Preventative Action Limit (PAL) has entered the building or is in contact with the building's foundation. Based on the groundwater data collected to date, none of these criteria apply to the site.

Based on the information provided above and information provided in the previous response (comment pertaining to "utility backfill"), the probability of vapors emanating from the SB-209 location into the industrial building located 75 feet west of the site are very low. Additionally, vapors potentially emanating from SB-209 would first encounter the "utility backfill" and the utility corridor along South 16th Street. As such, further investigation of potential off-site vapor intrusion from on-site CVOC soil impacts will be initially investigated via sanitary sewer and storm sewer utility corridor along South 16th Street as proposed in the *Additional SIWP*. Should the vapor results from the sanitary and storm sewer vapor sampling activities indicate the potential vapor intrusion risk to nearby buildings, then a separate Work Plan will be provided to the WDNR.

OTHER WDNR COMMENTS AND SCHEDULE

- *Depending upon the results of the sampling from this proposed work, additional investigation may be necessary to define the degree and extent of the contamination.*
- *All Wis. Admin. Code ch. NR 700 submittals must be submitted in an electronic format through the RR Submittal Portal.*
- *NR 700 semi-annual progress reports will be required until the case is closed.*
- *Per Wis. Admin. Code § NR 716.11(1)(2r), field investigation activities will be initiated within 60 days after the DNR approval of the work plan, by September 12, 2022.*
- *Results of the site investigation activities will be submitted to the DNR in a Site Investigation Report (SIR) that meets the requirements in Wis. Admin. Code § NR 716.15. The SIR will be submitted to the DNR within 60 days after completion of the field investigation and receipt of laboratory data. A fee may be submitted for DNR review and response.*

Response

Ramboll acknowledges these five comments. Work activities are proposed to begin prior to September 12, 2022.

If you have any questions, please do not hesitate to contact us at any time.

Yours sincerely,



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cc: Kristin Jones, Newell (electronic copy)
Adam Tegen, City of Manitowoc Community Development Authority (electronic copy)
Harris Byers, Stantec (electronic copy)

ENCLOSURES

Attachment A: Revised Table 1 – Groundwater Monitoring Program

ATTACHMENT A
REVISED TABLE 1 – GROUNDWATER MONITORING PROGRAM

REVISED Table 1 - Groundwater Monitoring Program
Former Mirro Plant No. 9
Manitowoc, WI

Monitoring Well Location	1st Quarter								2nd Quarter		3rd Quarter								4th Quarter		Each Event
	PFAS	VOCs	Dissolved Metals					PCBs	PFAS	VOCs	PFAS	VOCs	Dissolved Metals					PCBs	PFAS	VOCs	Water Levels
			Al	Sb	As	Cr	Pb						Al	Sb	As	Cr	Pb				
AMEC MW-14	X		X					X		X								X		X	
AMEC MW-15	X							X		X								X		X	
AMEC MW-16	X							X		X								X		X	
AMEC MW-16A	X							X		X								X		X	
AMEC MW-17	X			X				X		X			X					X		X	
AECOM MW-18	X																			X	
AECOM MW-19	X	X							X		X								X	X	
MW-3	X	X							X		X								X	X	
MW-5	X	X							X		X								X	X	
MW-6	X		X				X	X				X				X	X			X	
MW-7	X																			X	
MW-8	X	X							X		X								X	X	
MW-9	X	X						X	X	X	X							X	X	X	
MW-12	X		X	X	X	X		X		X		X	X	X	X			X	X	X	
MW-15	X	X							X		X								X	X	
MW-16	X	X							X		X								X	X	
MW-17	X	X							X		X								X	X	
MW-19	X	X				X		X		X				X		X			X	X	
MW-25	Monitoring Well Abandoned by Stantec on June 8, 2021. Well was not reinstalled.																				
MW-29	X																			X	
MW-31	X	X							X		X								X	X	
MW-37	X	X						X		X						X			X	X	
MW-48	X							X		X								X		X	
MW-60	X		X					X				X					X			X	
MW-67	X							X									X			X	
MW-82	X	X							X		X								X	X	
MW-99	X																			X	
MW-121	X	X							X		X								X	X	
MW-200	X							X		X								X		X	
PZ-200	X							X		X								X		X	
MW-201	X							X		X								X		X	
MW-204	X							X		X								X		X	
MW-205	X																			X	
PZ-206	X							X		X								X		X	
MW-208	X																			X	
MW-209	X	X						X	X	X	X							X	X	X	
MW-210	X																			X	
MW-213	X	X						X	X	X	X							X	X	X	
PZ-214	X							X		X								X		X	
MW-217	X	X						X	X	X	X							X	X	X	
MW-218	X							X		X								X		X	
MW-219	X	X							X		X								X	X	
MW-220	X																			X	
MW-221	X																			X	
MW-223	X																			X	
MW-224	X																			X	
PZ-224	X																			X	
MW-226	X							X		X								X		X	
PZ-226	X							X		X								X		X	
MW-228	X							X		X								X		X	
MW-233	X							X									X			X	
MW-234	X																			X	
Proposed MW-225	X							X		X								X		X	
Proposed MW-235	X							X		X								X		X	
Proposed MW-236	X							X		X								X		X	

Notes:

PFAS = Per and Polyfluoroalkyl Substances Al= Aluminum Cr = Chromium
VOCs = Volatile Organic Compounds Sb = Antimony Pb = Lead
PCBs = Polychlorinated Biphenyls As = Arsenic

This sampling plan may be modified based on the results from the data collected, which may include changes to sampling location, analytical parameters or frequency.

Items in gray indicate WDNR requested modifications to the original quarterly groundwater monitoring program.