



REGION 5

CHICAGO, IL 60604

March 14, 2024

Mr. Frank Dombrowski
Principal Environmental Consultant
WEC Energy Group – Business Services
333 W. Everett St., A231
Milwaukee, WI 53203

Dear Ms. Dombrowski:

The U.S. Environmental Protection Agency (EPA) has reviewed the document titled *Upland Remedial Investigation Report – Revision 0* (RI) for the Upland Operable Unit 1 (OU1) at the Former Green Bay Manufactured Gas Plant (MGP) in Green Bay, Wisconsin (Site), prepared by Ramboll on behalf of the Wisconsin Public Service Corporation (WPSC) on January 8, 2024. The RI Report was prepared in accordance with Paragraphs 32. a and b of the Administrative Settlement and Order on Consent for Remedial Investigations and Feasibility Studies (ASAOC), CERCLA Docket No. V-W-06-C-847 dated May 5, 2006. Comments for the RI Report are enclosed.

If you have any questions or concerns, please do not hesitate to contact me at 312-886-0552.

Sincerely,

A handwritten signature in black ink, appearing to read "Leah Werner".

Leah Werner
Remedial Project Manager

ENCLOSURES

1. Comments on the WPSC Green Bay Former MGP OU1 Remedial Investigation Report – Revision 0

cc: Korpela, Adrienne (Jacobs)
Krueger, Sarah (Wisconsin Department of Natural Resources [WDNR])

Comments on the RI Report text:

1. Some bullets are not aligned properly (e.g., see second bullet of Section 1.2; sixth bullet of Section 1.2.2; third bullet of Section 1.2.5.1).
2. Executive Summary, Page 12/84, second to last bullet: Delete extra words that appear in two sentences, “SL exceedances have been documented are present in the North Parking,” (“have been documented” or “are present”). “Additional groundwater sampling in the North Parking Lot is recommended warranted” (“recommended” or “warranted”).
3. Section 2.1.2, Page 23/84, Paragraph 3: The last sentence indicates bedrock was not encountered. Please indicate how deep the “investigation soil borings” extended, so that the reader has a sense of the vertical scope of the investigation. Was the sand-and-gravel aquifer also not encountered or expected to be present at the site?
4. Section 3.5, Page 27/84, Paragraph 1: The general list of COPCs is presented on Table 1 of the Multi-Site RAF, not Table 2. Revise accordingly.
5. Section 3.6.1.5, Page 32/84, Paragraph 3: The text states that all soil borings advanced in 2023 “currently remain in place.” Please clarify what this statement is intended to mean. Does this mean the soils as sampled from these borings currently remain in place?
6. Section 3.8.1, Page 40/84, Paragraph 2, Section 5.3.3, Page 76/84, Paragraph 2, and Section 6.1.3, Page 80/84, 2nd bullet: The last sentence begins with “If needed, ...” Delete the words “If needed” from the sentence; soil vapor or indoor air concentrations could now be higher at the Annex Building due to mobilizing vapors during ERA excavations in 2022-2023, temporal variability, and/or spatial variability. Only two indoor air locations and two sub-slab vapor locations were previously sampled in this large building. Groundwater is very shallow under the building, therefore, the VI pathway should be further evaluated at the Annex Building if the building will be reused in the future or if new buildings will be constructed in this area in the future. Please revise the remainder of the report accordingly.
7. Section 4.1.2.3, Page 51/84, last paragraph: The discussion on the sources of observed PAHs in soil is not clear and may benefit from an assessment of the absolute concentrations instead of the ratios of benzene to BaP and how these differ over depth. Overall, it appears that higher solubility PAHs and benzene are present in the clay where there are relatively limited heavier PAHs. The most obvious source of the observed impacts in the clay soil samples would appear to be the NAPL that remains in the adjacent fractures; however the text seems to instead highlight the prior impacts in the overlying fill groundwater (via matrix diffusion) as the source. While matrix diffusion likely plays a role in the distribution of contaminants, it seems this most likely occurs from the NAPL filled fractures to the wider clay matrix and from the NAPL-impacted clay to the overlying post-excavation backfill. Were similar distributions observed in the oil-wetted/coated material in clay fractures versus the samples collected below and adjacent to these impacts? Are the relatively higher amounts of heavy PAHs remaining in the fill at least in part the result of the PAHs contained within the backfill used? The text should be clearer as to what the remaining sources of the PAHs observed in each of the units are.

8. Section 4.2, Page 54/84: In Section 3.7.4, the groundwater monitoring program is described starting with quarterly sampling in 2015. Is there a reason why results of wells that exist to-date were not included in the evaluation (e.g., in Table 8b)?
9. Section 4.2.1, Page 54/84, 1st sentence: Consider adding water elevation data from 2015 to 2018 to Table 7 for a longer observation period for fluctuations.
10. Section 4.2.1, Page 55/84, Paragraph 3: Given the groundwater elevation fluctuations, recommend conducting a new comparison of groundwater elevations with river elevations (last one was conducted in 1995) to see the two rivers' influence on individual wells that exist now, and also comparing COC concentrations in groundwater with groundwater elevation changes over time to assess if a correlation exists.
11. Section 5.3.2.1, Page 74/84: Please acknowledge that, subject to changes in site conditions, contaminant migration pathways and NAPL mobility may need to be reevaluated.
12. Table 8b: Please arrange analytical results per individual sample location (well) to be in sequential time-line either oldest to newest results or vice versa making it possible to assess trends of individual analytes over time.
13. Figure 8: Figure 8 should also show the current wells where measurable thicknesses of DNAPL are known to be present.
14. Figure 5: Please add “(former)” to the Regency Suites Hotel and Regency Parking Lot 2 (R).
15. Figures 9c, d, e, and f: Adding the water table elevations from October 2023 to each blue well screen would provide added information about the subsurface.

Comments on Appendix C, Baseline Risk Assessment:

16. The pdf bookmarks are not consistently usable. Please revise.
17. Executive Summary, HHRA Results for the Riverwalk Area, Page 2, Paragraph 6 (Residential Scenario): Add benzo(a)pyrene as a chemical attributable to risk.
18. Section 4.1, Page 25, Paragraph 3: EPA has recently updated their residential lead screening level to 200 mg/kg; therefore, 200 mg/kg should be used as the level of comparison in this BLRA.
19. Section 4.1.3.1, Page 37, Paragraph 1: In the last sentence, change “subsurface soils” to “surface soils”.
20. Section 4.1.3.2, Page 37, Paragraph 1: Delete benzene from the list of chemicals exceeding industrial worker SLs.
21. Section 4.1.3.3, Page 38, Paragraph 3 (Construction worker scenario): Delete “cPAHs” before the word “benzene”.

22. Section 4.1.3.3, Page 39, Paragraph 3 (Residential scenario): Delete “cPAHs” before the word “benzene”.
23. Section 4.1.3.4, Page 39, Paragraph 1 (Industrial worker scenario): Delete “cPAHs” before the word “benzene”.
24. Section 4.1.3.4, Page 39, Paragraph 4 (Construction worker scenario): Delete “cPAHs” before the word “benzene”.
25. Section 4.1.3.4, Page 40, Paragraph 2 (Residential scenario): Delete “cPAHs” before the word “benzene”.
26. Section 4.1.3.4, Page 40, Paragraph 3 (Residential scenario): Change “industrial worker” to “residential”.
27. Section 4.3.2 , Page 44, Paragraph 2: The words “Vapor Intrusion Evaluation” at the end of the 2nd paragraph should be reformatted to be a header for its own section.
28. Section 4.3.2, Page 44, Paragraph 4: “target risk target of” should be deleted in the last paragraph.
29. Section 4 .4, Page 47, Paragraph 1: “and” should be replace with “or” in the last sentence.
30. Section 4.5, Page 47, 2nd bullet: Discuss the uncertainty in using VISLs to estimate indoor air exposures. Compare the site-specific subsurface characteristics (e.g., very shallow groundwater, presence of NAPL) to the conditions and assumptions of the generic conceptual model underlying the VISLs.
31. Section 5.2.4, Page 52, Paragraph 1: Discuss that soil vapor or indoor air concentrations could now be higher at the Annex Building due to mobilizing vapors during ERA excavations in 2022-2023, temporal variability, and/or spatial variability. Only 2 indoor air locations and 2 subslab vapor locations were previously sampled in this large building. In addition, groundwater is very shallow under the building, therefore, the VI pathway should be further evaluated at the Annex Building if the building will be reused in the future or if new buildings will be constructed in this area in the future.
32. Table 1c: Based on Table 9, benzo(k)fluoranthene should be listed as a COC for the construction worker and resident in the Soth Parking Lot for surface soil (0-0.5 ft).
33. Risk Table 11b: In cells P9 and Q9 (columns summarizing non-cancer hazard and drivers), benzo(a)pyrene should be included as a hazard driver.
34. Risk Table 12b: Based on the maximum hazard, benzo(a)pyrene should be included as a hazard driver in cells N9 and O9.
35. Table 20a: The benzo(a)pyrene ELCR in the South Parking Lot - All Soils (Any Depth) for the industrial scenario is 2E-05 (based on Risk Table 12a). As a result, the “CR>10-5” column for the industrial scenario should be marked with an “X” for benzo(a)pyrene.

36. Table 20b: Remove the “X” from the “CR >10⁻⁵” column for naphthalene in South Parking Lot - Subsurface Soil (0-10 ft) for the residential scenario. The ELCR = 1x10⁻⁵ (based on Risk Table 11c) and does not exceed 10⁻⁵.