

**From:** Gielniewski, Margaret <gielniewski.margaret@epa.gov>  
**Sent:** Tuesday, October 25, 2022 8:37 AM  
**To:** Dombrowski, Frank J  
**Cc:** Krueger, Sarah E - DNR; Marcus Byker (Marcus.Byker@ramboll.com); Abigail Small (ASMALL@ramboll.com); Korpela, Adrienne/MKE  
**Subject:** WPS Marinette - Response to Comments for FFS Rev 0  
**Attachments:** Marinette.FFSRev0.ResponseToCommentLetter.10.25.2022.pdf

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Hello Frank,

Thank you for the reminder—this dropped off my radar as something that was owed by the Agencies.

Please find EPA's responses/comments attached.

We look forward to Revision 1.

Kind regards,  
Margaret

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**From:** Dombrowski, Frank J <[frank.dombrowski@wecenergygroup.com](mailto:frank.dombrowski@wecenergygroup.com)>  
**Sent:** Monday, October 24, 2022 10:54 AM  
**To:** Gielniewski, Margaret <[gielniewski.margaret@epa.gov](mailto:gielniewski.margaret@epa.gov)>  
**Cc:** 'sarah.krueger@wisconsin.gov' <[sarah.krueger@wisconsin.gov](mailto:sarah.krueger@wisconsin.gov)>; Marcus Byker ([Marcus.Byker@ramboll.com](mailto:Marcus.Byker@ramboll.com)) <[Marcus.Byker@ramboll.com](mailto:Marcus.Byker@ramboll.com)>; Abigail Small ([ASMALL@ramboll.com](mailto:ASMALL@ramboll.com)) <[ASMALL@ramboll.com](mailto:ASMALL@ramboll.com)>  
**Subject:** WPS Marinette - Comments for FFS Rev 1

Hi Margaret,

We're working on completing Rev 1 of the FFS for Marinette. On our last call you mentioned that you have feedback on the outstanding items by about the 14<sup>th</sup>. Can you give us an update please?

Thanks,

*Frank Dombrowski*  
*Principal Environmental Consultant*

WEC Energy Group - Business Services  
Environmental Dept. - Land Quality Group  
333 W. Everett St., A231  
Milwaukee, WI 53203

Office: (414) 221-2156  
Cell: (414) 587-4467  
Fax: (414) 221-2022

*Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities,  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

Mr. Frank Dombrowski  
WEC Energy Group – Business Services  
Environmental Dept. - Land Quality Group  
For electronic submittal only

October 25, 2022

Subject: Review of WPSC's Responses to Comments on the *Focused Feasibility Study Rev. 0, WPS Marinette MGP (former) Site*, Presented During the Monthly Marinette Status Call on September 15, 2022.

Dear Mr. Dombrowski,

EPA and Wisconsin DNR reviewed the response to comments on the *Focused Feasibility Study Revision 0, Former Marinette Manufactured Gas Plant Site, Marinette, Wisconsin, Wisconsin Public Service Corporation* dated July 8, 2022, prepared by Ramboll on behalf of Wisconsin Public Service Corporation (WPSC) and presented during the Monthly Status Call on September 15, 2022.

Eighteen comments were discussed in detail during the conference call. For the remaining 87 comments, WPSC provided one of two general responses, "WPSC will complete revisions as requested" or "WPSC will consider comment during Remedial Design." EPA evaluated the responses to comments to assess if the responses satisfactorily addressed review comments prepared and submitted by the Agency to WPSC on August 16, 2022. WPSC did not provide a revised FFS report, therefore this evaluation does not address whether text revisions were appropriately incorporated into the FFS Report.

**Responses are acceptable:** Comments 1-5, 9, 11-14, 16-18, 22, 24, 26-27, 29-35, 38, 40-41, 47-54, 56-57, 59-63, 65-82, 84-90, and 92-103.

**Additional clarification is provided for future design consideration or other MGP sites; FFS revisions are not necessary:**

Comments 6, 7 and 43: The goal of a Feasibility Study under CERCLA is to provide a wide range of alternatives for evaluation, including alternatives that incorporate treatment strategies that incorporate permanent, irreversible technologies for mass removal and destruction. While we acknowledge that ISS would encapsulate subsurface contaminants, it is not a technology that is destructive or irreversible in nature. Low temperature thermal treatment may be a viable technology for the Boom Landing area that provides a better end point than ISS since it specifically satisfies the statutory preference for both treatment and contaminant mass reduction, which is stated within CERCLA guidance. We acknowledge that there would be implementation challenges that would need to be considered and designed for, which would increase costs, such as installing thermal components using directional drilling without surface completions. However, cost considerations alone should not be used to screen out viable options from the Feasibility Study. We acknowledge that thermal treatment overall may not be the optimal technology for the site and in the interest of moving the Feasibility Study forward, constructing and formally evaluating a thermal treatment alternative for this site would provide limited benefit to project stakeholders.

Professional experience has widely demonstrated the efficacy of thermal remediation. The technology is a highly effective approach even at treatment temperatures which focus on boiling subsurface conditions for mass removal and depletion of containment source zones even for MGP derived wastes. Accordingly, the potential application of in-situ thermal treatment to other MGP sites should be more closely considered rather than simply screening the technology from consideration based solely on its potential cost considerations alone.

Comment 21: If this alternative were to be selected, then precise and appropriate terms would need to be used in the design phase. There are risks associated with this technology and consequences for how the system is operated. The proposed term is acceptable for purposes of the FFS.

Comment 37: Dewatering could incur significant costs for excavation alternatives that have not been adequately accounted for in this FFS. However, considering that excavation alternatives are already at the high end of the cost range and in the interest of moving the Feasibility Study forward, adding more detailed costs are not necessary. In the future for other MGP sites, FFS costs should be adequately detailed to capture potentially high-cost components of the alternatives to allow appropriate comparisons.

**Responses are not addressed satisfactorily; FFS revisions are requested:**

Comments 8, 15, 19: It is still our standpoint that treatment of source zone areas by ISGS would not completely eliminate dissolved COC mass flux and that a downgradient PRB to polish groundwater would be necessary as a protective measure. We agree that monitoring would be beneficial.

Comment 10: Although the comment did not request an action, it implies a revision is necessary. Please revise the text to clarify that obtaining an environmental permit is not necessary, but that the site would comply with the substantive requirements.

Comment 20: These concepts from the comment related to Alternative 3 should be incorporated into the detailed evaluation of Alternative 3 (Section 5.4.3) and the comparative evaluation of the WWTP North Source Area (included in Section 6).

Comment 23: These concepts from the comment related to uncertainty of effectiveness should be incorporated into the detailed evaluation of Alternative 3 (Section 5.4.3) and the comparative evaluation of the WWTP North Source Area (included in Section 6). The further evaluation of the technology performance and pilot testing can be considered during RD if selected.

Comment 25: Consistent with Comment 11, provide this minor increase in detail.

Comment 28: While a complete monitoring plan does not need to be developed, some basic assumptions should be stated, the media that would be monitored and for how long. What was assumed for the cost estimates? Additionally, include a statement that a monitoring plan will be developed as part of the design phase.

Comment 36: While it may not be necessary to provide details in the FFS for screening of overburden, the text should be clarified throughout whether or not overburden would be reused onsite, and common assumptions should be made across alternatives. Consider whether reuse of overburden is likely.

Comment 39: The comment implies revising text to acknowledge that other activators available. Add clarification to the last sentence of this paragraph or add another sentence.

Comment 42: This comment implies disagreement with the last sentence of this subsection. At a minimum, add a sentence: "The need for a bench-scale study will be re-evaluated during the design phase."

Comment 44: This comment provides a broad statement to apply comments from the WWTP North area to the Boom Landing area given that they share many technologies and alternative components (i.e., rather than making the same comments over again). We do not agree with classification of this comment as design-level detail that will be considered during design.

Comments 45, 58: While we acknowledge that the downgradient wells near the river currently show non-detect concentrations of benzene and ethylbenzene (Figure 12A from the September meeting slides), the remedial activity constitutes a major perturbation to the system and the resulting hydrology will be substantially different than current conditions. ISS would disperse the NAPL in the source areas, thus eliminating the separate phase. The low conductivity ISS mass then would still release dissolved-phase contaminants as indicated by several publications related the Gowanus Canal, but here, the dissolved COCs would migrate directly into the "drainage vent." The exposed surface area on the sides and bottom of the trench is substantial. Since the drainage material in the trench will not be sorptive, a considerable mass of dissolved COCs the ISS mass may accumulate by the end of the trench and therefore be released toward the dock area. Additionally, the new drainage trench may act as a migration pathway for any NAPL that is not captured by upgradient recovery wells or treated by the upgradient PRB. Said NAPL can foul the GAC based PRB rendering it ineffective.

We do not dispute the need for a GAC-based PRB, we are merely indicating that it be conservatively relocated to the most downgradient location of the trench so it is not fouled by unmissed NAPL and dissolved COCs originating from the ISS mass. If there is going to be an upgradient PRB regardless, it should have the same drainage media as the rest of the trench with about 10 to 25% organoclay to immobilize any NAPL not captured by the recovery wells. Higher concentrations of organoclay may blind off the trench with swelling if contacted by considerable NAPL volumes. The inclusion of organoclay at said contents will ensure that only dissolved COCs enter the drainage trench. Additionally, another passive way to polish dissolved COCs in the drainage trench would be to install other technologies or materials within the trench profile, such as the addition of sawdust and wood chips at low contents, or slotted PVC piping to passively introduce and/or remove air via a manifold system positioned under the asphalt then conveyed to a common riser and/or roof vent at the edge of the re-paved areas that is wind or solar powered. At a minimum, groundwater wells, screened at appropriate depths compared to the trench, should be installed within the flow path between the outlet of the drainage vent and the river and/or within the trench. A comprehensive groundwater monitoring program should be developed with specific criteria that dictate a contingency plan should increasing COC concentrations be observed.

Comment 46: This comment provides a broad statement to apply previous comments that are applicable to these sections (i.e., rather than making the same comments over again). We do not agree with classification of this comment as design-level detail that will be considered during design.

Comment 55: A statement (or statements) should be added to the text to clarify if it is assumed that the ISS areas would continue to function in their current uses after the alternative is implemented. For example, will the ISS mass have sufficient bearing capacity to support a parking lot in the future (if desired), or will it no longer be able to be used as a parking lot after treatment?

Comment 64: This comment provides a broad statement to apply previous comments that are applicable to these sections (i.e., rather than making the same comments over again). We do not agree with classification of this comment as design-level detail that will be considered during design.

Comment 83: The comment implies that the wording in Table 4A needs to be revised. As it stands, it seems to indicate that the technology may not be effective given site conditions. Please revise Table 4A accordingly for clarity if this technology is to be retained in the screening.

Comment 91: While the EPA is satisfied with the overall level of detail in the FFS, these cross-section figures should be revised for clarity. Currently, they are difficult to interpret and understand. At a minimum, make sure that components are defined in the legend or with callouts and that the text is clear.

Comments 104, 105: High alkalinity renders persulfate applications questionable. In addition, if high sulfate exists, and persulfate is used, then consideration needs to be given to any potential impact of exceeding the secondary MCL for sulfate for quite some time. Indicate whether the groundwater is aerobic or anaerobic, because this has direct implications on quantity of chemicals that ISCO/ISGS will need, and provides insight into their longevity. If the groundwater is anaerobic, and ISCO is applied, it is likely to be short-lived. In general, it is prudent to present this data to evaluate persulfate before selecting it as a remedy component.

Thank you for the opportunity to comment.

Kind regards,

A handwritten signature in blue ink, appearing to read "Margaret Gielniewski".

Margaret Gielniewski

Ecc: Sarah Krueger, Wisconsin DNR  
Adrienne Korpela, Jacobs  
Marcus Byker, Rambol