

From: Gielniewski, Margaret (she/her/hers) <gielniewski.margaret@epa.gov>
Sent: Thursday, September 5, 2024 1:21 PM
To: Krueger, Sarah E - DNR
Subject: FW: WPSC Marinette ARARs Table and Response Letter
Attachments: Revised ARARs table letter to WEC.07.09.2024.pdf; Table 1 - Marinette ARARs Table 062824.pdf

Categories: Tracking

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Sarah,

Here are the documents that were sent to WPSC regarding ARARs.

Kind regards,
Margaret

Margaret Gielniewski
Remedial Project Manager
Remedial Response Section #4
Superfund & Emergency Management Division
U.S. EPA Region 5, Chicago
Ph. (312) 886-6244

From: Gielniewski, Margaret (she/her/hers)
Sent: Tuesday, July 9, 2024 10:51 AM
To: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Cc: Thomas, Jeffrey (he/him/his) <thomas.jeffrey@epa.gov>; Urban, Amanda <urban.amanda@epa.gov>; Prasad, Narendra M <narendra.prasad@wecenergygroup.com>
Subject: WPSC Marinette ARARs Table and Response Letter

Hello Frank,

I hope that you are well.

EPA reviewed the ARARs presented by WPSC. Please find EPA's response to the ARARs in the first PDF (Revised ARARs Table Letter, attached) and the updated list of ARARs in Table 1 (attached).

Please share with your counsel and consultants.

ARAR comments will be addressed in the responsiveness summary to the Proposed Plan.

Please reach out if you have any questions.

Kind regards,
Margaret

Margaret Gielniewski
Remedial Project Manager
Remedial Response Section #4
Superfund & Emergency Management Division
U.S. EPA Region 5, Chicago
Ph. (312) 886-6244



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

July 9 2024

Frank Dombrowski
Principal Environmental Consultant
WEC Business Services – Environmental Dept.
frank.dombrowski@wecenergygroup.com
For Electronic Delivery Only

Dear Mr. Dombrowski

Thank you for your letter of April 9, 2024 transmitting a revised draft of the ARARs table for the Marinette MGP Site. EPA has reviewed and revised the draft table further as indicated below and reflected in the attached version.

Requirements that have been added to the draft ARARs table:

- Wis. Stat. 292.12(2)(c), (3)(a) and (b), (5)(b), (c), and (d)
- Wis. Admin. Code § NR 140.28(5)(c)(4)
- Wis. Admin. Code § NR 708.13 – due to its incorporation in 726.05(6).
- TBC- “Continuing Obligations for Environmental Protection Responsibilities of Wisconsin Property Owners” (WDNR PUBL-RR-819, June 2017)

Non-ARARs that have been removed from the table:

- Wis. Stat. 292.12(4)
- Wis. Admin. Code § NR 725.05, .07
- Wisconsin’s Initiative for Sustainable Remediation and Redevelopment in the State of Wisconsin, A Practical Guide to Green and Sustainable Remediation in the State of Wisconsin. (WDNR Pub-RR-911, January 2012)
- WDNR Guidance Document: “Wisconsin Consensus-Based Sediment Quality Guidelines (WDNR PUBL-WT-732, December 2003)

EPA intends to publish the proposed plan for the Marinette Site shortly and include the attached draft ARARs table in it. EPA will accept comments on the plan including the draft table and may revise the plan and/or the ARARs table as appropriate following the public comment period.

EPA is highlighting, as identified below, non-ARARs laws and guidance that the State will be discussing with EPA when we consult with the State on the PRP's draft workplans and Site documents as appropriate during the Superfund remediation process.

- Wis. Stat. 292.12(2)(a) and (b); (4)
- Wis. Admin. Code § NR 724.13(1)(b); 724.17(1)
- Wis. Admin. Code § NR 724.19(1)
- Wis. Admin. Code § NR 726.05(4)
- Wis. Admin. Code § NR 211.10
- Wis. Admin. Code § NR 292.12(4)
- Wis. Admin. Code § NR 725.05; 725.07
- WDNR Guidance Document: "Wisconsin Consensus-Based Sediment Quality Guidelines (WDNR PUBL-WT-732, December 2003)

As a reminder, CERCLA does not provide an exemption from offsite legal requirements.

If you have any questions or concerns, please contact me at gielniewski.margaret@epa.gov or at (312) 886-6244.



Margaret Gielniewski , RPM
U.S. EPA Region 5

Attachment: Marinette MGP Site ARARs table

Ecc:

Margaret Gielniewski, RPM, U.S. EPA
Amanda Urban, Attorney, U.S. EPA
Jeff Thomas, Section #4 Supervisor, U.S. EPA
Naren Prasad, Principal Engineer, WEC

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

Chemical-Specific ARARs/TBC

| MEDIA | REQUIREMENT, CRITERIA, STANDARD, LIMIT | LEGAL CITATION | TYPE OF ARAR | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|------------------|--|-------------------------------|--------------------------|---|---|
| FEDERAL | | | | | |
| Groundwater | Groundwater Quality Standards | 40 CFR Part 141.61(a) and (c) | Relevant and Appropriate | The National Primary Drinking Water Regulations establish health-based standards for public drinking water systems called MCLs. Groundwater concentrations shall not exceed the MCLs as specified in 40 CFR 141.71(a) and (c). MCLs for COCs at the site include: benzene (0.005 mg/L), ethylbenzene (0.7 mg/L), xylenes (total) (10 mg/L), and benzo(a)pyrene (0.0002 mg/L). | For this Site: benzene, ethylbenzene, xylenes(total), benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and naphthalene are the COCs in groundwater that must attenuate to MCLs. Levels may be considered for use as initial cleanup goals. |
| WISCONSIN | | | | | |
| Groundwater | Groundwater Quality Standards | WAC NR 140.10 | Applicable | NR 140.10 identifies the groundwater quality standards for substances of public health concern. Enforcement standards (more stringent than federal MCLs) for COCs at this Site include: xylenes (total) (2,000 µg/L), benzo(b)fluoranthene (0.2 µg/L), chrysene (0.2 µg/L), and naphthalene (100 µg/L). | Specifically the ES for xylenes (total) (2,000 µg/L), benzo(b)fluoranthene (0.2 µg/L), chrysene (0.2 µg/L), and naphthalene (100 µg/L) are applicable here because they are more stringent than the federal MCLs [and these COCs were found to be present during sampling at the site. |
| Groundwater | Groundwater Quality Standards | WAC NR 726.05(6) | Relevant and Appropriate | WAC NR 726.05(6) identifies that site closure can be achieved if groundwater enforcement standards are not met provided that 1) adequate source control action is conducted, 2) natural attenuation will bring the groundwater into compliance with groundwater quality standards within a reasonable period of time, and 3) monitoring shows a stable or receding plume everywhere groundwater is monitored including source and NAPL areas. Per WAC NR 726.05(6)(a), adequate source control measures include the removal of all existing USTs, all other tanks, pipes, containers which may discharge hazardous substance have been removed, contained or controlled to prevent new discharges to groundwater, immediate and interim actions have been taken in accordance with NR 708 to protect public health, safety, or welfare or the environment, free product has been removed in accordance with the criteria in NR 708.13, and the concentration and mass of a substance have been reduce to naturally occurring processes as necessary to adequately protect public health and the environment, and prevent groundwater contamination from migrating beyond the boundaries of the property or properties which are required to be entered onto the department database. | This citation is relevant and appropriate to the selection of groundwater remediation goals. This citation is relevant and appropriate because this site has applicable groundwater ESs which trigger this provision for site closure. |
| Groundwater | Groundwater Quality Standards | WAC NR 708.13 | Relevant and Appropriate | Per WAC NR 708.13, responsible parties shall conduct free product removal whenever it is necessary to halt or contain the discharge of a hazardous substance or to minimize the harmful effects of the discharge to the air, lands or water of the state of Wisconsin. | This citation is relevant and appropriate due to its incorporation into to WAC NR 726.05(6). Due to the remedial option to excavate, it is possible for free product (here, non-aqueous phase liquid called NAPL) to be exposed. NAPL must be dealt with to prevent further contamination of groundwater. |
| Surface Water | Surface Water Quality Standards | WAC NR 102.04 | Relevant and Appropriate | Regulation identifies narrative requirements associated with surface water including: (a) Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state. | Surface Water Quality Standards including narrative standards and numeric standards for the MGP-related COCs at the Site are applicable to monitoring of surface water as |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

| | | | | | |
|---------------|---------------------------------|---------------|--------------------------|--|---|
| | | | | <p>(b) Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.</p> <p>(c) Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.</p> <p>(d) Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.</p> | part of evaluation of the effectiveness of the Reactive Core Mat. |
| Surface Water | Surface Water Quality Standards | WAC NR 105.08 | Relevant and Appropriate | <p>Regulation identifies the human threshold criterion which are the maximum concentration of a substance established to protect humans from adverse effects resulting from contact with or ingestion of surface waters of the state and from ingestion of aquatic organisms taken from surface waters of the state. The cold-water public supply surface water quality standards for COCs at the site include benzene (5 ug/L) and ethylbenzene (401 ug/L).</p> <p>Storm water runoff requirements apply during excavation activities at sites. 40 CFR 450.21 necessitates that any point source must achieve, at minimum, certain effluent limitations attainable by application of the best practicable control technologies currently available. This citation provides a listing of practices that erosion and sediment controls must be designed, installed and maintained to manage. The listed items relevant to this site include:</p> <p>(1) Control stormwater volume and velocity to minimize soil erosion in order to minimize pollutant discharges;</p> <p>(2) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;</p> <p>(3) Minimize the amount of soil exposed during construction activity;</p> <p>(4) Minimize the disturbance of steep slopes;</p> <p>(5) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;</p> <p>(6) Provide and maintain natural buffers around waters of the United States, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible;</p> <p>(7) Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted; and</p> <p>(8) Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.</p> | Surface Water Quality Standards including narrative standards and numeric standards for the MGP-related COCs at the Site are applicable to monitoring of surface water as part of evaluation of the effectiveness of the Reactive Core Mat. |

Location-Specific ARARs

| MEDIA | REQUIREMENT, CRITERIA, STANDARD, LIMIT | LEGAL CITATION | TYPE OF ARAR | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|-------|--|----------------|-----------------|----------------------|----------------------------------|
| | | | FEDERAL | | |
| | | | NONE IDENTIFIED | | |
| | | | WISCONSIN | | |
| | | | NONE IDENTIFIED | | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

Soil Action-Specific ARARs

| MEDIA | REQUIREMENT, CRITERIA, STANDARD, LIMIT | LEGAL CITATION | TYPE OF ARAR | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|-------------------------------|--|-------------------|--------------|--|---|
| FEDERAL | | | | | |
| Site Disturbance | Storm Water Runoff Requirements | 40 CFR 450.21(a) | Applicable | Storm water runoff requirements apply during excavation activities at sites. 40 CFR 450.21 necessitates that any point source must achieve, at minimum, certain effluent limitations attainable by application of the best practicable control technologies currently available. This citation provides a listing of practices that erosion and sediment controls must be designed, installed and maintained to manage. The listed items relevant to this site include: (1) Control stormwater volume and velocity to minimize soil erosion in order to minimize pollutant discharges; (2) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; (3) Minimize the amount of soil exposed during construction activity; (4) Minimize the disturbance of steep slopes; (5) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site; (6) Provide and maintain natural buffers around waters of the United States, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible; (7) Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted; and (8) Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. | Applies to construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre. WWTP Alternatives 4 and 5 and Boom Landing Alternatives 2 and 3 will result in site disturbance of greater than 1 acre. |
| | | 40 CFR 450.21 (b) | Applicable | Regulation requires that soil stabilization must begin immediately once earth disturbing activities are completed or on any portion of the site where earth disturbing activities have temporarily ceased and will not resume for a period exceeding 14 calendar days. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed. | Applies to construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre. WWTP Alternatives 4 and 5 and Boom Landing Alternatives 2 and 3 will result in site disturbance of greater than 1 acre. |
| | | 40 CFR 450.21 (c) | Applicable | Regulation prohibits discharges from dewatering of trenches and excavations, unless managed by appropriate controls. | |
| Wastewater Discharges To POTW | General Pretreatment Requirements | 40 CFR 403.4 | Applicable | Regulation prohibits specific discharges to POTW. 40 CFR 403.5.a(1) prohibits a user from introducing any pollutants into a POTW that may cause Pass Through or Interference. 40 CFR 403.5.a(2) limits specific discharges. Specific prohibitions that may apply to this site include: (1) pollutants which create a fire or explosion hazard (6) petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through and (7) pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems. Regulations states that: No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons. | Applies to discharges of water to POTWs. Excavation alternatives (WWTP Soil Alternative 5 and Boom Landing Soil Alternatives 3) will require dewatering to lower the water table within the excavation footprint. It is assumed that the removed groundwater will be treated at an onsite mobile treatment plant and discharged to the City of Marinette POTW under permit. Prior to discharge, the |
| Wastewater Discharges To POTW | General Pretreatment Requirements | 40 CFR 403.5 | Applicable | | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

| | | | | | |
|--|------------------------------------|-------------------------|------------|---|--|
| Wastewater Discharges To POTW | General Pretreatment Requirements | 40 CFR 144.12(a) | Applicable | | treated water will be subject to pretreatment requirements. Excavation dewatering, treatment and discharge may also be required for the ISS alternatives (WWTP Soil Alternative 4 and Boom Landing Soil Alternative 2) dependent on the ISS implementation approach. |
| | | 40 CFR 144.82 | Applicable | This regulation stipulates that an operator underground inject wells must comply with 40 CFR parts 144 through 147. Specific regulations applicable at the site are provide in the following rows. This regulation also includes closure requirements such that you must close the well in a manner that complies with prohibition of fluid movement. Also, you must dispose or otherwise manage any soil, gravel, sludge, liquids, or other materials removed from or adjacent to your well in accordance with all applicable Federal, State, and local regulations and requirements. | |
| In-situ Treatment of Soil via Injection (ISGS) | Underground Injection Requirements | 40 CFR 146.6 | Applicable | This regulation provides the method for determining the zone of influence for each injection well or field, project or area. | WWTP Alternative 2 includes in-situ chemical treatment via injection of fluids such as ISGS. |
| | | 40 CFR 146.10(c) | Applicable | This regulation specifies how Class V injection wells must be abandoned. Specifically: (1) Prior to abandoning a Class V well, the owner or operator shall close the well in a manner that prevents the movement of fluid containing any contaminant into an underground source of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 141 or may otherwise adversely affect the health of persons. (2) The owner or operator shall dispose of or otherwise manage any soil, gravel, sludge, liquids, or other materials removed from or adjacent to the well in accordance with all applicable Federal, State, and local regulations and requirements | |
| | | 40 CFR 146.51 | Applicable | This regulation specifies that all underground injection wells not regulated in previous subparts are considered class V injection wells. Remediation injection wells fall into this category. | |
| | | | | | |
| WISCONSIN | | | | | |
| Site Disturbance | Storm Water Runoff Requirements | Wis. Stat. NR 216.46(8) | Applicable | This regulation specifies that velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive flow from the structure to a watercourse so that the natural physical and biological characteristics and functions are maintained and protected. | |
| | | Wis. Stat. NR 216.48(4) | Applicable | The regulation specifies that erosion and sediment control practices shall be inspected weekly, and within 24 hours following a rainfall of 0.5 inches or greater. Additionally, this regulation specifies that erosion and sediment control best management practices must be repaired or replaced within 24 hours of an inspection indicating that repair or inspection is needed. | Applies to construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre. WWTP Alternatives 4 and 5 and Boom Landing Alternatives 2 and 3 will result in site disturbance of greater than 1 acre. |
| | | WAC NR 151.11(6m)a | Applicable | This citation provides a listing of practices that erosion and sediment controls must prevent or reduce. The listed items that are more stringent or specific than those listed in federal regulations include: 1. The deposition of soil from being tracked onto streets by vehicles. 2. The discharge of sediment from disturbed areas into on-site storm water inlets. 6. The discharge of sediment eroding from soil stockpiles existing for more than 7 days. 7. The discharge of sediment from erosive flows at outlets and in downstream channels. 8. The transport by runoff into waters of the state of chemicals, cement, and other building compounds and materials on the construction site during the construction period. 9. The transport by runoff into waters of the state of untreated wash water from vehicle and wheel washing. | |
| | | WAC NR 151.11(6m)b | Applicable | This regulation specifies that BMPs shall be used that, by design, discharge no more than 5 tons per acre per year, or to the maximum extent practicable, of the sediment load carried in runoff from initial grading to final stabilization. | |

Groundwater Action-Specific ARARs

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

| MEDIA | REQUIREMENT, CRITERIA, STANDARD, LIMIT | LEGAL CITATION | TYPE OF ARAR | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|--|--|--|--------------------------|--|---|
| FEDERAL | | | | | |
| In-Situ Treatment of Soil via Injection (ISGS) | Underground Injection Requirements | 40 CFR 144.12(a) | Applicable | Regulations states that: No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons. This regulation stipulates that an operator underground inject wells must comply with 40 CFR parts 144 through 147. Specific regulations applicable at the site are provided in the following rows. This regulation also includes closure requirements such that you must close the well in a manner that complies with prohibition of fluid movement. Also, you must dispose or otherwise manage any soil, gravel, sludge, liquids, or other materials removed from or adjacent to your well in accordance with all applicable Federal, State, and local regulations and requirements. | WWTP North Alternatives 2 through 5 include a permeable reactive barrier that is likely to be installed via injection methods. Installation via injection would necessitate compliance with underground injection requirements. |
| | | 40 CFR 144.82 | Applicable | | |
| | | 40 CFR 146.6 | Applicable | This regulation provides the method for determining the zone of influence for each injection well or field, project or area. | |
| | | 40 CFR 146.10(c) | Applicable | This regulation specifies how Class V injection wells must be abandoned. Specifically: (1) Prior to abandoning a Class V well, the owner or operator shall close the well in a manner that prevents the movement of fluid containing any contaminant into an underground source of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 141 or may otherwise adversely affect the health of persons. (2) The owner or operator shall dispose of or otherwise manage any soil, gravel, sludge, liquids, or other materials removed from or adjacent to the well in accordance with all applicable Federal, State, and local regulations and requirements | |
| | | | | This regulation specifies that all underground injection wells not regulated in previous subparts are considered class V injection wells. Remediation injection wells fall into this category. | |
| 40 CFR 146.51 | Applicable | | | | |
| WISCONSIN | | | | | |
| | Groundwater monitoring | WAC NR 140.28(5)(c)(4) | Relevant and Appropriate | Requires an owner or operator to make a demonstration that no uncontaminated or contaminated water, substance or remedial material will be infiltrated or injected into an area where a floating non-aqueous phase liquid is present in the contaminated soil or groundwater when a PAL or ES under NR 140.10 or NR 140.12 has been attained or exceeded | Under some alternatives, a floating non-aqueous liquid may be present at the Site |
| All Groundwater Alternatives | Groundwater Monitoring Well Requirements | WAC NR 141.065 | Applicable | This citation provides requirements for monitoring well locations. | Abandonment or construction of new monitoring wells associated with the selected remedy will require compliance with well construction regulations. All alternatives will require the abandonment of monitoring wells in the Source Areas for remedy implementation. WWTP Alternatives 2 through 5 and Boom Landing Alternatives 2 and 3 include a dissolved phase flux control measure which will require the installation of additional monitoring wells for performance monitoring. Additionally, other alternatives such as WWTP Alternative 2 (ISGS) and WWTP Alternative 3 (Aerobic Bioremediation) would require |
| | | WAC NR 141.07 | Applicable | This citation provides requirements for well casings used in monitoring well construction. | |
| | | WAC NR 141.09 | Applicable | This citation provides requirements for well screens used in monitoring well construction. | |
| | | WAC NR 141.10 | Applicable | This citation provides requirements for tremie pipes and sealing procedures used in monitoring well construction. | |
| | | WAC NR 141.11 | Applicable | This citation provides requirements for filter pack specifications used in monitoring well construction. | |
| | | WAC NR 141.13 | Applicable | This citation provides sealing requirements for monitoring well construction. | |
| | | WAC NR 141.15 | Applicable | This citation provides drilling method requirements to be used for monitoring well construction. | |
| | | WAC NR 141.16 | Applicable | This citation provides requirements to limit cross contamination during monitoring well construction. | |
| | | WAC NR 141.17 | Applicable | This citation provides requirements for disposal of drill cuttings and fluids. The citation also stipulates that well construction and development equipment be decontaminated to prevent cross-contamination. | |
| | | WAC NR 141.19 | Applicable | This citation provides requirements for borehole diameter dependent on well installation methods. | |
| WAC NR 141.21 | Applicable | This citation provides requirements for monitoring well development following well installation. | | | |
| | | WAC NR 141.25 | Applicable | This citation provides requirements for abandonment of all boreholes greater than 10 feet deep or which intersect a water table and all groundwater monitoring wells. | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY
 FOCUSED FEASIBILITY STUDY
 WISCONSIN PUBLIC SERVICE CORPORATION
 FORMER MARINETTE MANUFACTURED GAS PLANT
 BRRTS# 02-38-000047 USEPA# WIN00050995**

| | | | | | |
|--|--|--|--|--|--|
| | | | | | installation of additional monitoring wells during the pilot study or implementation phase for design and performance monitoring. Additionally, the anticipated sediment remedy includes regular effectiveness monitoring to assess migration of MGP source materials. The effectiveness monitoring is anticipated to include installation of an additional groundwater monitoring well within the former slough immediately adjacent to the river, subject to physical constraints (i.e., river stage elevation, etc.). |
|--|--|--|--|--|--|

All Media Action-Specific ARARs

| MEDIA | REQUIREMENT, CRITERIA, STANDARD, LIMIT | LEGAL CITATION | TYPE OF ARAR | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|---|---|----------------|--------------|---|--|
| FEDERAL | | | | | |
| Groundwater or Soil Treatment that Generates Vapors | Air Emissions Requirements, Criteria, Limitations | 40 CFR 50.11 | Applicable | This regulation specifies that national primary and secondary 24-hour ambient air quality standards for particulate matter is 150 µg/m ³ , 24-hour average concentration. The standards are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m ³ is equal to or less than one. | Air emission requirements are applicable to soil excavation and blending activities that generate fugitive dust and/or vapors. The proposed alternatives include soil excavation and blending activities likely to generate fugitive dust as well as in-situ treatment alternatives that generate vapors. It is anticipated that vapors and PM10 will be monitored during construction activities. |
| | | 40 CFR 53.43 | Applicable | This regulation outlines the testing procedures to measure PM10 for comparison to the air quality standards listed in 40 CFR 50.11. | |
| WISCONSIN | | | | | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

| | | | | | |
|---|--|---|------------|---|--|
| Groundwater or Soil Treatment that Generates Vapors | Air Emissions Requirements, Critical Limitations | WAC NR 415.04(1), NR 415.04(2a), NR415.04(2b) | Applicable | <p>WAC NR 415.04 (Control of Particulate Emissions) regulates the generation of fugitive dust emissions including required precautions such as use of water or chemicals and covering of stockpiles.</p> <p>Applicable components of NR 415.04 (1) include precautions to limit fugitive dust such as the use of water or chemicals for control of dust, the application of asphalt, water, suitable chemicals or plastic covering on stockpiles or other surfaces that can create airborne dust, and the covering or securing of materials likely to become airborne while being moved on public roads.</p> <p>WAC NR 415.04(2a) stipulates that storage piles having a material transfer greater than 100 tons in any year are subject to specific management and storage requirements.</p> <p>WAC NR 415.04(2b) stipulates that materials handling operations such as handling of waste material are subject to certain particulate matter emissions requirements.</p> | Air emission requirements are applicable to soil excavation and blending activities that generate fugitive dust and/or vapors. The proposed alternatives include soil excavation and blending activities likely to generate fugitive dust as well as in-situ treatment alternatives that may generate vapors. Excavation and backfill is anticipated to be required. |
| | | WAC NR 419.07 | Applicable | <p>WAC § NR 419.07 (Control of Organic Compound Emissions) applies to the remediation of contaminated soil or groundwater and regulates the daily organic emissions limits associated with remediation. The emissions from the remediation or disposal of contaminated soil or water may not exceed 216 pounds per day.</p> <p>Per NR 419.07, the WDNR may waive compliance with any requirement of this section to the extent necessary to prevent an emergency condition which threatens public health, safety, welfare or the environment.</p> | |
| | | WAC NR 429.03 | Applicable | <p>NR 429.03 (Malodorous Emissions and Open Burning) prohibits the emissions of any substances that result in objectional odors and provides the methods for determining whether an odor is objectionable.</p> | |
| | | WAC NR 431.05 | Applicable | <p>NR 431.05 (Control of Visible Emissions) prohibits visible emissions of shade or density greater than number of the Ringlemann chart or 20% opacity with listed exceptions.</p> | |
| | | WAC NR 445.07 | Applicable | <p>NR 445.07 states that no owner or operator of a source may cause, allow or permit emissions of a hazardous air contaminant in such quantity or concentration or for such duration as to cause an ambient air concentration of the contaminant off the source property that exceeds a stated concentration. For chemicals anticipated on this site, ambient air concentration limits per 24-hour average include: ethylbenzene = 10,421 µg/m³, naphthalene = 1,258 µg/m³, toluene = 4,522 µg/m³, and xylenes = 10,421 µg/m³</p> | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY
 FOCUSED FEASIBILITY STUDY
 WISCONSIN PUBLIC SERVICE CORPORATION
 FORMER MARINETTE MANUFACTURED GAS PLANT
 BRRTS# 02-38-000047 USEPA# WIN00050995**

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

| | | | | | |
|-----|--|---|--------------------------|--|---|
| All | Statutes for Remedial Action – Sites with Residual Contamination | Wis. Stat. 292.12(2)(c) Wis. Stat. 292.12(3)(a) and (b) Wis. Stat. 292.12(5)(b), (c), and (d) | Relevant and Appropriate | Wis Statute 291.12 regulates the requirements for sites with residual contamination remaining in place. Wis. Stat. 292.12(2)(c) provides authority for the state to impose substantive limitations or other conditions related to property to ensure that conditions at the site remain protective of public health, safety, and welfare and the environment as part of reviewing a remedial action 292.12(3)(a) - provides for a public database where records of sites with residual contamination is stored, which is a component of how Superfund implements institutional controls through the State's continuing obligation program 292.12(3)(b) states that if contamination remains on a site that includes the use of an engineering control, the agency with administrative authority shall request the WDNR to list the site in the database maintained by the WDNR. 292.12(5)(b), (c), and (d) state that requirements, limitations, or conditions relating to restrictions of sites listed on the WDNR GIS database are required to be met by all property owners. | All the alternatives include residual contamination to remain in place under appropriate engineered barriers and institutional controls. The main properties are owned the City of Marinette; therefore, appropriate notification is required. Impacts may remain in place within the Mann Street Right-of-Way and underneath a railroad ROW. |
| | | WAC NR 727.05 | Relevant and Appropriate | This regulation specifies the minimum responsibilities of responsible parties and owners and occupants of properties with residual contamination, where continuing obligations have been. Relevant responsibilities outlined in NR 727.05 include: 1) Operate and maintain the response required and 2) conduct long term monitoring. The responsible party is also required to allow reasonable access to the agency for inspection of continuing obligations. | |

To Be Considered Standards, Guidance, and Initiatives

| ALTERNATIVE COMPONENT | LEGAL CITATION | REQUIREMENT SYNOPSIS | APPLICABILITY TO SELECTED REMEDY |
|-----------------------|----------------|----------------------|----------------------------------|
| FEDERAL | | | |
| NONE IDENTIFIED | | | |

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

| WISCONSIN | | | |
|--|---|---|---|
| Air Management Guidelines & Community Involvement | Wisconsin Bureau of Environmental and Occupational Health, Department of Health and Family Services: "Health-based Guidelines for Air Management and Community Involvement During Former Manufactured Gas Plant Clean-ups" (March 23, 2014) | <p>This document provides guidance on developing Air Management Plans to protect human health during remedial activities at MGP sites in Wisconsin. Relevant recommendations in the Guidance Document include: Background air monitoring should be conducted prior to any excavation. The following action level ranges may be considered during excavations: - VOCs at Site Perimeter: 0.1 ppm to 1.0 ppm total VOCs - Benzene at Site Perimeter: 0.1 ppm to 0.5 ppm - Particulates at Site Perimeter: 0.150 to 1.0 mg/m³</p> <p>DHS recommendations: - Air quality at the unsecured perimeter of MGP remediation sites should meet existing public health-based 24-hour standards and guidelines on ambient air. - Neighbors of MGP excavations should be able to avoid tar odors within their homes with doors and windows closed. Meeting this goal should focus on site management but might also entail special accommodations for neighbors.</p> | WWTP Alternatives 4 and 5 and Boom Landing Alternatives 2 and 3 will include excavation of MGP-impacted soils. Additionally, all alternatives will include some excavation for the placement of engineered barriers to address shallow non-source material. |
| Soil Cover Guidance | WDNR Guidance Document: "Guidance for Cover Systems as Soil Performance Standard Remedies" (WDNR PUBL-RR-709, October 2013) | <p>This document provides guidance on cover systems and soil performance standard remedies. Relevant, substantive components of this guidance include: Section 4) General goals for all covers. The design, construction and maintenance of a cover system should be implemented to address the following concerns, where appropriate: - Erosion from precipitation, surface water flow or winds - Cracking and deterioration from natural forces including water saturation and freeze/thaw cycles and expected human activities/use on the cover - Incompatible human activities such as digging, gardening, and construction - Settlement and shifting - Damage from migration of groundwater into the cover - Contamination migration, including migration to the surface of the cover and vapor migration</p> <p>Section 5) General Design Concepts – Direct Contact Cover Systems: b) In addition to the general design goals in Section 4, the design must prevent direct contact exposure to contaminated soil and should consider site-specific factors. c) Soil covers may be used to prevent direct contact exposure to contaminated soils. Generally, a 2-foot thickness of clean soil should be placed over the contaminated soil. Soil covers should be vegetated to prevent erosion and deterioration. Therefore, at least 6 inches of topsoil, with appropriate seeding or sod, to establish a good growth of grass should be placed on top of the clean soil. If topsoil is used, then consideration can be given to reducing the minimum thickness of the clean soil layer by the same amount as the topsoil layer thickness. Other materials, such as gravel or bark, may substitute for vegetated topsoil, as discussed below. The slope for clean soil with vegetated topsoil direct contact cover should normally not be steeper than 3:1 (H:V), but preferably no steeper than 4:1 or, better, 5:1. Steeper slopes may be considered on a case by case basis if it can be shown that erosion will be adequately controlled through additional design features and/or O&M. Steeper slopes will generally call for an evaluation of the need for slope reinforcement to provide long-term stability d) Pavement systems may be used to prevent direct contact exposure to contaminated soils. Contaminated soil particles can work their way to pavement surfaces where pavement settlement, cracking, freeze/thaw cycles, weathering, and deterioration are not adequately addressed in the design, construction and maintenance of the cover. Settlement and shifting can greatly increase the chances of this occurring as well. Therefore, sites where settlement and shifting are a potential problem may not be candidates for pavement direct contact covers. Pavement material should have appropriate bottom base soil preparation (grading, re-compaction, dewatering, etc., as appropriate), sufficient base course to minimize freeze/thaw problems, settling and shifting which can cause the development of cracks. Designs that minimize long-term maintenance needs should be evaluated. There should be an appropriate layer of base material placed over the contaminated soil before the pavement material is placed.</p> | All alternatives (non-source area and inaccessible source material areas) include engineered barriers including areas of soil cover and areas of pavement cover. |
| Continuing Obligations Guidance | "Continuing Obligations for Environmental Protection Responsibilities of Wisconsin Property Owners" (WDNR PUBL-RR-819, June 2017) | Provides additional detail as to various types of continuing obligations | The substantive portions of this guidance will be relevant to implementing and maintaining institutional controls at the Site |

Acronyms

**TABLE 1 – APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, AND TO BE CONSIDERED GUIDANCE/CRITERIA FOR USEPA ROD-SELECTED REMEDY
FOCUSED FEASIBILITY STUDY
WISCONSIN PUBLIC SERVICE CORPORATION
FORMER MARINETTE MANUFACTURED GAS PLANT
BRRTS# 02-38-000047 USEPA# WIN00050995**

Acronyms µg/L: microgram per liter

µg/m³: microgram per cubic meter

ARARs: Applicable or Relevant and Appropriate Requirements

CFR: Code of Federal Regulations

COCs: constituents of concern

DHS: Wisconsin Department of Health and Family Services

ES: Enforcement Standards

ISGS: in situ geochemical stabilization

ISS: in situ solidification and stabilization

MCL: maximum contaminant level

mg/L: milligram per liter

MGP: manufactured gas plant

NAPL: non-aqueous phase liquid

NR: Natural Resources

POTW: publicly owned treatment works

PM₁₀: particulate matter with diameters that are generally 10 micrometers and smaller.

PPM: parts per million

TBC: to be considered

USEPA: United States Environmental Protection Agency

UST: underground storage tank

WAC: Wisconsin Administrative Code

WDNR: Wisconsin Department of Natural Resources

Wis. Stat.: Wisconsin Statute

WWTP: wastewater treatment plant