

Permit Fact Sheet

General Information

Permit Number	WI-0024708-11-0
Permittee Name and Address	City of Menomonie City Hall 800 Wilson Ave., Menomonie, WI 54751
Permitted Facility Name and Address	Menomonie Wastewater Treatment Facility 620 11th Ave West, Menomonie, WI
Permit Term	January 01, 2027 to December 31, 2031
Discharge Location	East bank of the Red Cedar River, approximately 0.05 miles south of Highway 29 bridge. SE1/4, SE1/4, Section 27, T28N, R13W
Receiving Water	Red Cedar River in Wilson Creek Watershed of Lower Chippewa River Basin in Dunn County
Stream Flow (Q _{7,10})	437 cfs
Stream Classification	Warm Water Sport Fish, non-public water supply, recreational use
Discharge Type	Existing, Continuous
Annual Average Design Flow (MGD)	2.80 MGD
Industrial or Commercial Contributors	3M Manufacturing, Cardinal Glass, Con Agra, Ellsworth COOP Creamery
Plant Classification	A1 - Suspended Growth Processes; B - Solids Separation; C - Biological Solids/Sludges; P - Total Phosphorus; D - Disinfection; L - Laboratory; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

The City of Menomonie operates an advanced class, activated sludge wastewater treatment facility (WWTF) that treats domestic and industrial wastewater. The WWTF accepts septic and domestic holding tank wastes and landfill leachate. Treatment includes raw wastewater pumping, a 6-millimeter fine screen, grit removal, primary settling, biological and chemical phosphorus removal, activated sludge, secondary settling, tertiary reactive sand filters, and UV disinfection. Waste activated sludge (WAS) is thickened by dissolved air floatation. Sludge is anaerobically digested, thickened by a gravity belt thickener, and hauled to a sludge storage site until land application on Department approved sites.

Substantial Compliance Determination

Enforcement During Last Permit: Several permit violations occurred during the permit term. An NON was sent on April 25, 2025 and January 23, 2026 for a Sanitary Sewer Overflows (SSO) that occurred on April 15, 2025 and January 15 – 20, 2026, respectively. The permittee has completed all required actions as part of the enforcement process.

After a desktop review of all discharge monitoring reports, CMARs, land application reports, compliance schedule items, and a site visit on June 3, 2026, this facility has been found to be in substantial compliance with their current permit.

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701	1.50 MGD (2025)	Influent: 24-hr flow proportional composite samples shall be collected after grit removal and prior to return flows. An ultrasonic flow meter is located at the Parshall flume.
101	N/A Field Blank	Field Blank: Collect total recoverable mercury field blanks at the same time and location as the mercury effluent sample using standard sample handling procedures.
001	1.61 MGD (October 2020 – January 2026 Average)	Effluent: 24-hr flow proportional composite and grab samples shall be collected at the effluent gate after UV disinfection. An ultrasonic flow meter is located at the Parshall flume in the effluent channel after the RSF.
002	461 dry US tons (2024)	Anaerobically digested, Gravity belt thickened, Liquid, Class B. Representative sludge composite samples shall be collected after the gravity belt thickener.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- INFLUENT AT PARSHALL FLUME

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
CBOD5		mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	Daily	24-Hr Flow Prop Comp	
BOD5, Total		mg/L	Monthly	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	24-Hr Flow Prop Comp	See Mercury Monitoring permit section.

Changes from Previous Permit:

Influent limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit.

Flow: Sample frequency changed from continuous to daily for eDMR reporting purposes.

CBOD and TSS: Sample frequency changed from 5/week to daily to align with effluent monitoring.

Explanation of Limits and Monitoring Requirements

Monitoring of influent flow, BOD5 and total suspended solids is required by s. NR 210.04(2), Wis. Adm. Code, to assess wastewater strengths and volumes and to demonstrate the percent removal requirements in s. NR 210.05, Wis. Adm. Code, and in the Standard Requirements section of the permit.

2 Inplant - Monitoring and Limitations

2.1 Sample Point Number: 101- MERCURY FIELD BLANK

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Mercury, Total Recoverable		ng/L	Quarterly	Blank	See Mercury Monitoring permit section.

Changes from Previous Permit:

In-plant limitations and monitoring requirements were evaluated for this permit term and no changes were required in this permit section.

Explanation of Limits and Monitoring Requirements

Mercury Field Blank: Monitoring is included in the permit pursuant to s. NR 106.145, Wis. Adm. Code. Field blanks must meet the requirements under s. NR 106.145(9) and (10), Wis. Adm. Code. The permittee shall collect a mercury field blank for each set of mercury samples (a set of samples may include a combination of influent, effluent or other samples all collected on the same day). Field blanks are required to verify a sample has not been contaminated during collection, transportation or analysis.

3 Surface Water - Monitoring and Limitations

3.1 Sample Point Number: 001- EFFLUENT AFTER DISINFECTION

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
CBOD5	Weekly Avg	40 mg/L	Daily	24-Hr Flow Prop Comp	
CBOD5	Monthly Avg	25 mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids,	Monthly Avg	30 mg/L	Daily	24-Hr Flow	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Total				Prop Comp	
pH Field	Daily Min	6.0 su	Daily	Grab	
pH Field	Daily Max	9.0 su	Daily	Grab	
Nitrogen, Ammonia Variable Limit		mg/L	Daily	See Table	Look up the variable ammonia limit from the 'Variable Ammonia Limitation' table and report the variable limit in the Ammonia Variable Limit column on the eDMR.
Nitrogen, Ammonia (NH3-N) Total	Daily Max - Variable	mg/L	Daily	24-Hr Flow Prop Comp	Report the daily maximum Ammonia result in the Nitrogen, Ammonia (NH3-N) Total column of the eDMR. See Ammonia Limitation permit section.
Nitrogen, Ammonia (NH3-N) Total	Weekly Avg	108 mg/L	Daily	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	108 mg/L	Daily	24-Hr Flow Prop Comp	
E. coli	Geometric Mean - Monthly	126 #/100 ml	2/Week	Grab	Limit effective May through September annually.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit effective May through September annually. See the E. coli Percent Limit permit section. Enter the result in the DMR on the last day of the month.
Chromium +6		ug/L	Monthly	24-Hr Flow Prop Comp	
Mercury, Total Recoverable	Daily Max	2.6 ng/L	Quarterly	24-Hr Flow Prop Comp	See Mercury Monitoring and Mercury Variance – Implement Pollutant Minimization Program Plan permit sections.
PFOS		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					schedule.
PFOA		ng/L	1/ 2 Months	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
Phosphorus, Total	Monthly Avg	0.3 mg/L	Daily	24-Hr Flow Prop Comp	
Phosphorus, Total	6-Month Avg	0.1 mg/L	Daily	24-Hr Flow Prop Comp	
Phosphorus, Total	6-Month Avg	2.3 lbs/day	Daily	Calculated	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Nitrite + Nitrate Total		mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total		mg/L	Quarterly	Calculated	Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	See the Whole Effluent Toxicity (WET) Testing permit section.
Chronic WET		TUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	See the Whole Effluent Toxicity (WET) Testing permit section.

Changes from Previous Permit

Effluent limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit.

Flow: The sample frequency for flow has been changed from “continuous” to “daily” for eDMR reporting purposes.

CBOD, TSS, Phosphorus: The sample frequency for these parameters have changed from “5/week” to “daily”.

Ammonia: The sample frequency has been changed from “quarterly” to “daily”. Daily maximum, weekly average, and monthly average limits have been included in the permit.

E. coli: The sample frequency has been changed from “weekly” to “2/week”.

Chromium +6: Monthly monitoring has been included in the permit.

Mercury: The daily max limit has been changed from 3.6 ng/L to 2.6 ng/L and updated pollutant minimization program activities (PMPs) throughout the permit term.

PFOS and PFOA: Monitoring once every two months is included in the permit in accordance with s. NR 106.98(2)(b), Wis. Adm. Code.

Explanation of Limits and Monitoring Requirements

Detailed discussions of limits and monitoring requirements can be found in the attached water quality-based effluent limits (WQBEL) memo for the Menomonie Wastewater Treatment Facility dated May 06, 2026, prepared by Benjamin Hartenbower, and used for this reissuance.

Monitoring Frequencies: The Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. CBOD, TSS, Phosphorus, and Ammonia have a sample frequency of “daily”. The Department determined the standard monitoring frequency for these parameters is appropriate based on the number of industrial contributors, effluent variability, and significant upgrades to the treatment facility.

Expression of Limits: In accordance with the federal regulation 40 CFR 122.45(d) and s. NR 205.065, Wis. Adm. Code, limits in this permit are to be expressed as weekly average and monthly average limits whenever practicable. Minor changes have been made to Ammonia.

Ammonia: The variable daily maximum ammonia nitrogen limit table corresponding to various effluent pH values is included in the permit in place of a single limit. Weekly and monthly average limits are also included in accordance with the Expression of Limits requirement.

Chromium +6: The mean effluent concentration is 5.7 µg/L. This limit is below the 1/5 of the calculated effluent limits but is approaching the daily maximum 1/5 effluent limit of 6 µg/L, based on Acute Toxicity Criteria for hexavalent chromium. Based on the effluent variability and types of industrial dischargers, monthly monitoring has been included in the permit.

Mercury: Requirements for mercury are included in s. NR 106.145, Wis. Adm. Code. The City of Menomonie applied for a mercury variance, under the provisions of s. NR 106.145, Wis. Adm. Code, with its application for permit reissuance. The previous permit also included a mercury variance. The Department reviewed Menomonie’s application for a mercury variance. The information supplied in the application supports the request. The proposed permit requires the permittee to implement a Mercury Pollutant Minimization Program (PMP) and submit annual progress reports each year by March 31st.

The department concludes that the City of Menomonie is qualified for a variance from the water quality standard for mercury and proposes reissuance of this permit with the proposed variance.

PFOS and PFOA: NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. At the first reissuance of a WPDES permit after August 1, 2022, the new rule requires WPDES permits for major municipal dischargers with an average flow rate greater than 1 MGD but less than 5 MGD, at a minimum sample effluent once every two-months for PFOS and PFOA pursuant s. NR 106.98(2)(b), Wis. Adm. Code.

A sample frequency of 1/2 months means one sample is taken during any two-month period. Examples of 1/2 month sample would be every other month (Jan, March, May, etc.) or back-to-back months with a break in between (February & March, May & June, Aug & Sept, etc.). DMR Short Forms will be generated for the following time periods: January-February, March-April, May-June, July-August, September-October, and November-December. At a minimum one sample result will be present on each form.

The initial determination of the need for sampling shall be conducted for up to two years in order to determine if the permitted discharge has the reasonable potential to cause or contribute to an exceedance of the PFOS or PFOA standards under s. NR 102.04(8)(d)1, Wis. Adm. Code.

4 Land Application - Monitoring and Limitations

Municipal Sludge Description						
Sample Point	Sludge Class (A or B)	Sludge Type (Liquid or Cake)	Pathogen Reduction Method	Vector Attraction Method	Reuse Option	Amount Reused/Disposed (Dry Tons/Year)
002	B	Liquid	Anaerobic Digestion	Volatile Solids Reduction	Land Application	461
Does sludge management demonstrate compliance? Yes.						
Is additional sludge storage required? No.						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? Yes.						
If yes, special monitoring and recycling conditions will be included in the permit to track any potential problems in landapplying sludge from this facility						
Is a priority pollutant scan required? No, design flow is less than 5 MGD.						
Priority pollutant scans are required once every 10 years at facilities with design flows between 5 MGD and 40 MGD, and once every 5 years if design flow is greater than 40 MGD.						

4.1 Sample Point Number: 002- LIQUID SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Quarterly	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Quarterly	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Quarterly	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Quarterly	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Quarterly	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Quarterly	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Quarterly	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Quarterly	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Quarterly	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Quarterly	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Quarterly	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Quarterly	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Quarterly	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Selenium Dry Wt	Ceiling	100 mg/kg	Quarterly	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Quarterly	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Quarterly	Composite	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Quarterly	Composite	
Phosphorus, Total		Percent	Quarterly	Composite	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Composite	
Potassium, Total Recoverable		Percent	Quarterly	Composite	
Radium 226 Dry Wt		pCi/g	Annual	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	Once in 2028.
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	Once in 2028.
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS permit sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit.

PCB: The year in which PCB monitoring is required has been updated to 2028.

PFAS: Monitoring is required annually pursuant to s. NR 204.06(2)(b)9., Wis. Adm. Code.

Explanation of Limits and Monitoring Requirements

Requirements for disposal, including land application of municipal sludge, are determined in accordance with ch. NR 204, Wis. Adm. Code. Ceiling and high-quality limits for metals in sludge are specified in s. NR 204.07(5). Requirements for pathogens are specified in s. NR 204.07(6) and in s. NR 204.07 (7) for vector attraction requirements. Limitations for PCBs are addressed in s. NR 204.07(3)(k). Radium requirements are addressed in s. NR 204.07(3)(n).

PFAS: The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA has developed a draft risk assessment to determine future land application rates and released this risk assessment in January of 2025. The department is evaluating this new information. Until a decision is made, the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS” should be followed

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department’s implementation of EPA’s recommendations. To quantitate this risk, PFAS sampling has been included in this WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

5 Schedules

5.1 Mercury Pollutant Minimization Program

As a condition of the variance to the water quality based effluent limitation(s) for mercury granted in accordance with s. NR 106.145(6), Wis. Adm. Code, the permittee shall perform the following actions.

Required Action	Due Date
Annual Mercury Progress Reports: Submit an annual mercury progress report related to the pollutant minimization activities for the previous year. The annual mercury progress report shall: Indicate which mercury pollutant minimization activities or activities outlined in the Pollutant Minimization Program Plan have been implemented and state which, if any, activities from the Pollutant Minimization Program Plan were not pursued and why; Include an assessment of whether each implemented pollutant minimization activity appears to be effective or ineffective at reducing pollutant discharge concentrations and identify actions planned for the upcoming year; Identification of barriers that have limited program effectiveness and adjustments to the program that will be implemented during the next year to help address these barriers; Include an analysis of trends in total effluent mercury concentrations based on mercury sampling; and Include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury. The first annual mercury progress report is to be submitted by the Due Date.	03/31/2027
Annual Mercury Progress Report #2: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	03/31/2028
Annual Mercury Progress Report #3: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	03/31/2029
Annual Mercury Progress Report #4: Submit a mercury progress report, related to the pollutant minimization activities for the previous year, as defined above.	03/31/2030
Final Mercury Report: Submit a final report documenting the success in reducing mercury concentrations in the effluent, as well as the anticipated future reduction in mercury sources and mercury effluent concentrations. The report shall: Summarize mercury pollutant minimization activities that have been implemented during the current permit term and state which, if any, activities from the Pollutant Minimization Program Plan were not pursued and why;	03/31/2031

Include an assessment of which pollutant minimization activities appear to have been effective or ineffective. Evaluate any needed changes to the pollutant reduction strategy accordingly; Identification of barriers that have limited program effectiveness and adjustments to the program that will be implemented during the next variance term (if applicable) to help address these barriers; Include an analysis of trends in mercury concentrations based on sampling and data during the current permit term; and Include an analysis of how influent and effluent mercury varies with time and with significant loadings of mercury. If the permittee intends to reapply for a mercury variance per s. NR 106.145, Wis. Adm. Code, for the reissued permit, a detailed Pollutant Minimization Program Plan outlining the pollutant minimization activities proposed for the upcoming permit term shall be submitted along with the final report. An updated pollutant minimization plan shall: Include an explanation of why or how each pollutant minimization activity will result in reduced discharge of the target pollutant; Evaluate any new available information on pollutant sources, timing, and concentration to update the mass balance assumptions and expected sources of the pollutant, and Identify any information needs that would help to better determine pollutant sources and make plans to collect that information.	
Annual Mercury Reports After Permit Expiration: In the event that this permit is not reissued by the date the permit expires, the permittee shall continue to submit annual mercury reports for the previous year following the due date of Annual Mercury Progress Reports listed above. Annual Mercury Progress reports shall include the information as defined above.	

Explanation of Schedule

This schedule is required to ensure that the permittee maintains compliance with the conditions and requirements of receiving a variance from the water quality-based mercury effluent limits. Since a compliance schedule is being granted, an interim limit is required, and that limit is established as 2.6 ng/L (as a daily maximum). The schedule requires that annual reports shall indicate which pollutant minimization activities have been implemented during each calendar year, and an analysis of mercury concentration discharge data based on mercury sampling and flow data.

5.2 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results.	12/31/2027
Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan.	12/31/2028

This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results. The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan. If the department determines a PFOS/PFOA minimization plan is needed based on a reasonable potential evaluation, the permittee will be required to develop a minimization plan for department approval no later than 90 days after written notification was sent from the department. The department will modify or revoke and reissue the permit to include PFOS/PFOA minimization plan reporting requirements along with a schedule of compliance to meet WQBELs. Effluent monitoring of PFOS and PFOA shall continue as specified in the permit until the modified permit is issued. If, however, the department determines there is no reasonable potential for the facility to discharge PFOS or PFOA above the narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code, no further action is required and effluent monitoring of PFOS and PFOA shall continue as specified in the permit.	
--	--

Explanation of Schedule

As stated above, ch. NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. Section NR 106.98, Wis. Adm. Code, specifies steps to generate data in order to determine the need for reducing PFOS and PFOA in the discharge. Data generated per the effluent monitoring requirements will be used to determine the need for developing a PFOS/PFOA minimization plan. As part of the schedule, the permittee is required to submit two annual Reports on Effluent Discharge.

If the Department determines that a minimization plan is needed, the permit will be modified or revoked/reissued to include additional requirements.

5.3 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
Land Application Management Plan Submittal: Submit a management plan to optimize the land application system performance and demonstrate compliance with ch. NR 204, Wis. Adm. Code, by the Due Date. This management plan shall 1) specify information on pretreatment processes (if any); 2) identify land application sites; 3) describe site limitations; 4) address vegetative cover management and removal; 5) specify availability of storage; 6) describe the type of transporting and spreading vehicle(s); 7) specify monitoring procedures; 8) track site loading; 9) address contingency plans for adverse weather and odor/nuisance abatement; and 10) include any other pertinent information. Once approved, all landspreading activities shall be conducted in accordance with the plan. Any changes to the plan must be approved by the Department prior to implementing the changes.	03/31/2027

Explanation of Schedule

An up-to-date Land Application Management Plan is required that documents how the permittee will manage the land application of biosolids consistent with ch. NR 204, Wis. Adm. Code.

Attachments

Water Quality Based Effluent Limits dated May 6, 2026

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance.

Prepared By: BetsyJo Howe, Wastewater Specialist

Date: 6/22/2026

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: May 6, 2026

TO: BetsyJo Howe – WCR/Fitchburg

FROM: Benjamin Hartenbower – WCR/Eau Claire

SUBJECT: Water Quality-Based Effluent Limitations for the Menomonie Wastewater Treatment Facility
WPDES Permit No. WI-0024708

This is in response to your request for an evaluation of the need for water quality-based effluent limitations (WQBELs) using chapters NR 102, 104, 105, 106, 207, 210, 212, and 217 of the Wisconsin Administrative Code (where applicable) for the discharge from the Menomonie Wastewater Treatment Facility in Dunn County. This municipal wastewater treatment facility (WWTF) discharges to the Red Cedar River, located in the Wilson Creek Watershed in the Lower Chippewa River Basin. The evaluation of the permit recommendations is discussed in more detail in the attached report.

Based on our review, the following recommendations are made on a chemical-specific basis at Outfall 001:

Parameter	Daily Maximum	Daily Minimum	Weekly Average	Monthly Average	Six-Month Average	Footnotes
Flow Rate						1,2
CBOD ₅			40 mg/L	25 mg/L		1,3,4
TSS			45 mg/L	30 mg/L		1,3
pH	9.0 s.u.	6.0 s.u.				1
Ammonia	Variable		108 mg/L	108 mg/L		5,6
<i>E. coli</i> May - September				126 #/100 mL geometric mean		7
Chromium (+6)						2
Mercury				1.30 ng/L		8
PFOS and PFOA						9
Phosphorus TBEL Final WQBEL				1.0 mg/L 0.300 mg/L	0.100 mg/L, 2.3 lbs/day	
TKN, Nitrate+Nitrite, and Total Nitrogen						10
Acute WET						11,12
Chronic WET						11,13

Footnotes:

1. No changes from the current permit.
2. Monitoring only.
3. These limits are based on the Warm Water Sport Fish (WWSF) community of the immediate receiving water as described in s. NR 210.05(1), Wis. Adm. Code.

4. This facility meets the conditions as described in s. NR 210.07(4), Wis. Adm. Code. An additional requirement is the 30-day average CBOD₅ percent removal may not be less than 85%. Significant improvements to treatment quality at the facility will prompt a re-evaluation of this variance. Otherwise the need for CBOD₅ limits does not need to be demonstrated at subsequent permit reissuances if the treatment quality is expected to remain similar as compared to when the limits were implemented in the permit.
5. The variable daily maximum ammonia nitrogen limit table corresponding to various effluent pH values may be included in the permit in place of the single limit. These limits apply year-round.

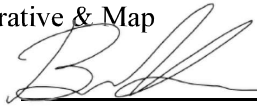
Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L
6.0 ≤ pH ≤ 6.1	108	7.0 < pH ≤ 7.1	66	8.0 < pH ≤ 8.1	14
6.1 < pH ≤ 6.2	106	7.1 < pH ≤ 7.2	59	8.1 < pH ≤ 8.2	11
6.2 < pH ≤ 6.3	104	7.2 < pH ≤ 7.3	52	8.2 < pH ≤ 8.3	9.4
6.3 < pH ≤ 6.4	101	7.3 < pH ≤ 7.4	46	8.3 < pH ≤ 8.4	7.8
6.4 < pH ≤ 6.5	98	7.4 < pH ≤ 7.5	40	8.4 < pH ≤ 8.5	6.4
6.5 < pH ≤ 6.6	94	7.5 < pH ≤ 7.6	34	8.5 < pH ≤ 8.6	5.3
6.6 < pH ≤ 6.7	89	7.6 < pH ≤ 7.7	29	8.6 < pH ≤ 8.7	4.4
6.7 < pH ≤ 6.8	84	7.7 < pH ≤ 7.8	24	8.7 < pH ≤ 8.8	3.7
6.8 < pH ≤ 6.9	78	7.8 < pH ≤ 7.9	20	8.8 < pH ≤ 8.9	3.1
6.9 < pH ≤ 7.0	72	7.9 < pH ≤ 8.0	17	8.9 < pH ≤ 9.0	2.6

6. Additional limits to comply with the expression of limits requirements in ss. NR 106.07 and NR 205.065(7), Wis. Adm. Codes, are included in bold.
7. Additional Limit: No more than 10 percent of *E. coli* bacteria samples collected in any calendar month may exceed 410 count/100 mL.
8. This is the WQBEL for mercury. If this limit is included in the permit, mass limits would also need to be included. A variance limit of 2.6 ng/L as a daily maximum, may be included in the permit in place of the WQBEL if the variance application that was submitted is approved by EPA.
9. PFOS and PFOA monitoring is recommended once every two months in accordance with s. NR 106.98(2), Wis. Adm. Code.
10. As recommended in the Department's October 1, 2019 *Guidance for Total Nitrogen Monitoring in Wastewater Permits*, quarterly total nitrogen monitoring is recommended for all major municipal facilities. Sections 283.37(5) and 283.55(1)(e), Wis. Stats, and ss. NR 200.065(1)(g) and NR 200.065(1)(h), Wis. Adm. Codes, provide the authority to request this monitoring during the permit term. Total Nitrogen is the sum of nitrate (NO₃), nitrite (NO₂), and total Kjeldahl nitrogen (TKN) (all expressed as N).
11. Annual Acute and Chronic WET tests are recommended. Sampling WET concurrently with any chemical-specific toxic substances is recommended. Tests should be done in rotating quarters, to collect seasonal information about this discharge. Testing should continue after the permit expiration date (until the permit is reissued).
12. According to the *State of Wisconsin Aquatic Life Toxicity Testing Methods Manual* (s. NR 219.04, Table A, Wis. Adm. Code), a synthetic (standard) laboratory water may be used as the dilution water and primary control in acute WET tests.
13. The Instream Waste Concentration (IWC) to assess chronic test results is 4%. According to the *State of Wisconsin Aquatic Life Toxicity Testing Methods Manual* (s. NR 219.04, Table A, Wis. Adm. Code), chronic testing shall be performed using a dilution series of 100%, 30%, 10%, 3% & 1%. The primary control water used in chronic WET tests conducted on Outfall 001 shall be a grab sample collected from the Red Cedar River.

Please consult the attached report for details regarding the above recommendations. If there are any questions or comments, please contact Benjamin Hartenbower at (715) 225-4705 or benjamin.hartenbower@wisconsin.gov or Diane Figiel at Diane.Figiel@wisconsin.gov.

Attachments (2) – Narrative & Map

PREPARED BY:



Date:

5/6/26

Benjamin Hartenbower, PE
Water Resources Engineer

E-cc: Adebawale Adesanwo, Wastewater Engineer – WCR/Eau Claire
Geisa Bittencourt, Regional Wastewater Supervisor – WCR/Eau Claire
Diane Figiel, Water Resources Engineer – WY/3
Nate Willis, Wastewater Engineer – WY/3
Chris Willger, Water Quality Biologist – WCR/Eau Claire

Attachment #1
**Water Quality-Based Effluent Limitations for
The Menomonie Wastewater Treatment Facility**

WPDES Permit No. WI-0024708

Prepared by: Benjamin P. Hartenbower

PART 1 – BACKGROUND INFORMATION

Facility Description

Treatment for the Menomonie Wastewater Treatment Facility includes raw wastewater pumping, a 6-mm fine screen, grit removal, primary settling, biological and chemical phosphorus, activated sludge, secondary settling, tertiary reactive sand filters to achieve ultralow phosphorus limits, UV disinfection, anaerobic sludge digestion, and mechanical sludge handling. Effluent is discharged at the east bank of the Red Cedar River, approximately 100 yards downstream from the State Highway 29 bridge in Menomonie, WI.

Attachment #2 is a map of the area showing the approximate location of Outfall 001.

Existing Permit Limitations

The current permit, which expired on September 30, 2025, includes the following effluent limitations and monitoring requirements.

Parameter	Daily Maximum	Daily Minimum	Weekly Average	Monthly Average	Six-Month Average	Footnotes
Flow Rate						1,2
CBOD ₅			40 mg/L	25 mg/L		1,3,4
TSS			45 mg/L	30 mg/L		1,3
pH	9.0 s.u.	6.0 s.u.				1
Ammonia Nitrogen						2
Fecal Coliform May - December				400 #/100 mL geometric mean		5
<i>E. coli</i> May - September				126 #/100 mL geometric mean		6
Chlorine May - September	38 µg/L		38 µg/L	38 µg/L		7
Mercury	3.6 ng/L					8
Phosphorus TBEL Final WQBEL				1.0 mg/L 0.300 mg/L	0.100 mg/L, 2.3 lbs/day	9
TKN, Nitrate+Nitrite, and Total Nitrogen						2
Acute WET						10
Chronic WET						11

Footnotes:

1. These limitations are not being evaluated as part of this review. Because the water quality criteria (WQC), reference effluent flow rates, and receiving water characteristics have not changed, limitations for these water quality characteristics do not need to be re-evaluated at this time.
2. Monitoring only.
3. These limits are based on the Warm Water Sport Fish (WWSF) community of the immediate receiving water as described in s. NR 210.05(1), Wis. Adm. Code.
4. This facility meets the conditions as described in s. NR 210.07(4), Wis. Adm. Code. An additional requirement is the 30-day average CBOD₅ percent removal may not be less than 85%. Significant improvements to treatment quality at the facility will prompt a re-evaluation of this variance. Otherwise the need for CBOD₅ limits does not need to be demonstrated at subsequent permit reissuances if the treatment quality is expected to remain similar as compared to when the limits were implemented in the permit.
5. A compliance schedule is in the current permit for the *E. coli* limit to replace the Fecal Coliform limit by 05/01/2022.
6. No more than 10 percent of bacteria samples collected in any calendar month may exceed 410 count/100 mL.
7. Additional limits to comply with the expression of limits requirements in ss. NR 106.07 and NR 205.065(7), Wis. Adm. Codes, are included in bold.
8. Variance Limit.
9. A compliance schedule is in the current permit to meet the final WQBEL by January 1, 2024.
10. Acute WET testing required: April - June 2021, July - September 2022, October - December 2023, April - June 2024, and January - March 2025.
11. Chronic WET testing required: April - June 2021, July - September 2022, April - June 2024, January - March 2025, and October - December 2023. The IWC for chronic WET was 4%.

Receiving Water Information

- Name: Red Cedar River
- Waterbody Identification Code (WBIC): 2063500
- Classification used in accordance with chs. NR 102 and 104, Wis. Adm. Code: Warm Water Sport Fish (WWSF) community, non-public water supply.
- Low flows used in accordance with chs. NR 106 and 217, Wis. Adm. Code: The following 7-Q₁₀ and 7-Q₂ values are from USGS for Station 05369000 at Menomonie, 1,000 feet downstream of the dam in the Red Cedar River, where Outfall 001 is located.
 - 7-Q₁₀ = 437 cubic feet per second (cfs)
 - 7-Q₂ = 617 cfs
 - 90-Q₁₀ = 524 cfs
 - Harmonic Mean Flow = 883 cfs using a drainage area of 1,770 mi²The Harmonic Mean has been estimated based on average flow and the 7-Q₁₀ using an equation from U.S. EPA's *Technical Support Document for Water Quality-Based Toxics Control* (March 1991, EPA/505/2-90-001, pgs. 88-89).
- Hardness = 104 mg/L as CaCO₃. This value represents the geometric mean of hardness from the Red Cedar River from 10/03/1994 to 09/05/1996 (n = 20).
- % of low flow used to calculate limits in accordance with s. NR 106.06(4)(c)5, Wis. Adm. Code: 25%

Attachment #1

- Source of background concentration data: Chloride data is from the Red Cedar River. Metals data from the Chippewa River at Durand are used in this evaluation because there is no data available for the Red Cedar River. The Chippewa River is within the same ecological landscape so ambient water quality characteristics are expected to be similar. The numerical values are shown in the tables below. If no data is available, the background concentration is assumed to be negligible and a value of zero is used in the computations. Background data for calculating effluent limitations for ammonia nitrogen are described later.
- Multiple dischargers: There are several other dischargers to the Red Cedar River, however they are not in the immediate vicinity and the mixing zones do not overlap. Therefore, the other dischargers do not impact this evaluation.
- Impaired water status: The Red Cedar River is impaired for Mercury (multiple segments between miles 16.48 and 95.65), PCBs (multiple segments between miles 0 and 101.41), and Total Phosphorus (multiple segments between miles 0 and 78.51).

Effluent Information

- Flow Rate(s):
Annual Average = 2.80 MGD (Million Gallons per Day)
Peak Daily = 4.12 MGD
For reference, the actual average flow from October 2020 to January 2026 was 1.61 MGD.
- Hardness = 190 mg/L as CaCO₃. This value represents the geometric mean four samples collected in August and September 2024 which were reported in the permit application.
- Acute dilution factor used in accordance with s. NR 106.06(3)(c), Wis. Adm. Code: Not applicable – this facility does not have an approved Zone of Initial Dilution (ZID).
- Wastewater source: Domestic wastewater with two Categorical Industrial Users, one Significant Non-domestic Contributor, and one potential toxic user.
- Water supply: Menomonie Waterworks
- Additives: NS 49510M (Water Quality Conditioner), Hyper+ Ion 1997 (Water Quality Conditioner)
- Effluent characterization: This facility is categorized as a major municipality, so the permit application required effluent sample analyses for all the “priority pollutants” except for the Dioxins and Furans as specified in s. NR 200.065, Table 1, Wis. Adm. Code. The permit-required monitoring for Ammonia Nitrogen, Chlorine, Mercury, and Phosphorus from October 2020 to January 2026 is used in this evaluation.
- Effluent data for substances for which a single sample was analyzed is shown in the tables in Part 2, in the column titled “MEAN EFFL. CONC.”. Otherwise, substances with multiple effluent data are shown in the tables below or in their respective parts in this evaluation.

Effluent Data for Outfall 001

	Mercury (ng/L)
1-day P ₉₉	2.61
4-day P ₉₉	1.87
30-day P ₉₉	1.47
Mean	1.28
Std	0.43
Sample size	21
Range	0.74 - 2.3

Effluent Data for Outfall 001

Sample Date	Copper µg/L	Sample Date	Chromium +6 µg/L	Sample Date	Chloride mg/L
08/21/2024	6.4	12/03/2024	23	08/21/2024	240
08/27/2024	7.3	02/11/2026	11	08/27/2024	230
08/30/2024	6.5	02/23/2026	31	08/30/2024	240
09/06/2024	4.6	02/25/2026	4.2	09/06/2024	240
09/10/2024	5.8	03/02/2026	<3.2		
09/13/2024	9.5	03/04/2026	<1.3		
09/17/2024	9.6	03/10/2026	<1.3		
09/20/2024	4.8	03/17/2026	<1.3		
11/12/2024	<3.2	03/19/2026	2		
11/15/2024	3.4	03/23/2026	<1.3		
01/02/2025	5.4	03/25/2026	<1.3		
		04/20/2026	3.1		
		04/22/2026	<1.3		
mean	5.8	mean	5.7	mean	238

“<” means that the pollutant was not detected at the indicated limit of detection. The mean concentration was calculated using zero in place of the non-detected results.

The following table presents the average concentrations and loadings at Outfall 001 from October 2020 to January 2026 for all parameters with limits in the current permit to meet the requirements of s. NR 201.03(6), Wis. Adm. Code:

Parameters with Effluent Limits

	Average Measurement	Average Mass Discharged
CBOD ₅	8 mg/L*	
TSS	9 mg/L*	
pH	7.20 s.u.	
Fecal Coliform	8 #/100 mL**	
<i>E. coli</i>	8 #/100 mL**	
Mercury	1.28 ng/L	
Phosphorus	0.442 mg/L	5.7 lbs/day

*Results below the limit of detection (LOD) were included as zeros in calculation of average.

** The average measurement for bacteria is calculated as a geometric mean. Values reported below the LOD are replaced with a value of 1 for the calculation of the geometric mean.

PART 2 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR TOXIC SUBSTANCES – EXCEPT AMMONIA NITROGEN

Permit limits for toxic substances are required whenever any of the following occur:

1. The maximum effluent concentration exceeds the calculated limit (s. NR 106.05(3), Wis. Adm. Code)
2. If 11 or more detected results are available in the effluent, the upper 99th percentile (or P₉₉) value exceeds the comparable calculated limit (s. NR 106.05(4), Wis. Adm. Code)
3. If fewer than 11 detected results are available, the mean effluent concentration exceeds 1/5 of the calculated limit (s. NR 106.05(6), Wis. Adm. Code)

Acute Limits based on 1-Q₁₀

Daily maximum effluent limitations for toxic substances are based on the acute toxicity criteria (ATC), listed in ch. NR 105, Wis. Adm. Code. Previously daily maximum limits for toxic substances were calculated as two times the ATC. However, changes to ch. NR 106, Wis. Code, (September 1, 2016) require the Department to calculate acute limitations using the same mass balance equation as used for other limits along with the 1-Q₁₀ receiving water low flow to determine if more restrictive effluent limitations are needed to protect the receiving stream from discharges which may cause or contribute to an exceedance of the acute water quality standards. The mass balance equation is provided below.

$$\text{Limitation} = \frac{(\text{WQC}) (Q_s + (1-f) Q_e) - (Q_s - f Q_e) (C_s)}{Q_e}$$

Where:

WQC = Acute toxicity criterion or secondary acute value according to ch. NR 105, Wis. Adm. Code.

Q_s = average minimum 1-day flow which occurs once in 10 years (1-day Q₁₀)
if the 1-day Q₁₀ flow data is not available = 80% of the average minimum 7-day flow which occurs once in 10 years (7-day Q₁₀).

Q_e = Effluent flow (in units of volume per unit time) as specified in s. NR 106.06(4)(d), Wis. Adm. Code.

f = Fraction of the effluent flow that is withdrawn from the receiving water, and

C_s = Background concentration of the substance (in units of mass per unit volume) as specified in s. NR 106.06(4)(e), Wis. Adm. Code.

If the receiving water is effluent dominated under low stream flow conditions, the 1-Q₁₀ method of limit calculation produces the most stringent daily maximum limitations and should be used while making reasonable potential determinations. This is not the case for the Menomonie Wastewater Treatment Facility, and the limits are set based on two times the acute toxicity criteria.

The following tables list the calculated WQBELs for this discharge along with the results of effluent sampling for all the detected substances. All concentrations are expressed in terms of micrograms per Liter (µg/L), except for hardness and chloride (mg/L) and mercury (ng/L).

Daily Maximum Limits based on Acute Toxicity Criteria (ATC)

RECEIVING WATER FLOW = 350 cfs, (1-Q₁₀ (estimated as 80% of 7-Q₁₀)), as specified in s. NR 106.06(3)(bm), Wis. Adm. Code.

SUBSTANCE	REF. HARD. mg/L	ATC	MEAN BACK-GRD.	MAX. EFFL. LIMIT**	1/5 OF EFFL. LIMIT	MEAN EFFL. CONC.	1-day P ₉₉	1-day MAX. CONC.
Chlorine		19.03		38	8	2		299
Arsenic		339.8		680	136	1.2		
Cadmium	190	21.52	0.01	43	9	<0.17		
Chromium (+3)	190	3050.05	0.5	6100	1220	<3.2		
Chromium (+6)		16.02		32	6	5.7		
Copper	190	28.43	1.21	57	11	5.8		9.6
Lead	190	198.8	0.338	398	80	<5.4		
Mercury (ng/L)		830	4.376	1660			2.61	2.30
Nickel	190	807.53		1615	323	<4.7		
Zinc	190	211.01	1.413	422	84	51		
Chloride (mg/L)		757	10	1514	303	238		240
Phenol ⁺		4460		4460	892	0.013		

**The 2 × ATC method of limit calculation yields a more restrictive limit than consideration of ambient concentrations and 1-Q₁₀ flow rates per the changes to s. NR 106.07(3), Wis. Adm. Code, effective 09/01/2016.

+ The limit for this substance is based on a secondary value. Acute limits are set equal to the secondary value rather than two times or using the 1-Q₁₀ s. NR 106.06(3)(b)2 and s. NR 105.05(2)(f)6, Wis. Adm. Code.

Weekly Average Limits based on Chronic Toxicity Criteria (CTC)

RECEIVING WATER FLOW = 109 cfs, (¼ of 7-Q₁₀), as specified in s. NR 106.06(4)(c), Wis. Adm. Code.

SUBSTANCE	REF. HARD. mg/L	CTC	MEAN BACK-GRD.	WEEKLY AVE. LIMIT**	1/5 OF EFFL. LIMIT	MEAN EFFL. CONC.	4-day P ₉₉
Chlorine		7.28		191.0	38.2	2	
Arsenic		152.2		3993	799	1.2	
Cadmium	104	2.54	0.01	66	13	<0.17	
Chromium (+3)	104	136.29	0.5	3563	713	<3.2	
Chromium (+6)		10.98		288	58	5.7	
Copper	104	10.69	1.21	250	50	5.8	
Lead	104	29.05	0.338	754	151	<5.4	
Mercury (ng/L)		440	4.376	11433			1.87
Nickel	104	53.9		1414	283	<4.7	
Zinc	104	124.44	1.413	3229	646	51	
Chloride (mg/L)		395	10	10111	2022	238	
Phenol ⁺		558		14639	2927.8	0.013	

+ The limit for this substance is based on a secondary value.

Monthly Average Limits based on Wildlife Criteria (WC)

RECEIVING WATER FLOW = 131 cfs, (¼ of 90-Q₁₀), as specified in s. NR 106.06(4)(c), Wis. Adm. Code.

SUBSTANCE	WC	MEAN BACK-GRD.	MO'LY AVE. LIMIT	1/5 OF EFFL. LIMIT	MEAN EFFL. CONC.	30-day P ₉₉
Mercury	1.3	4.376	1.30			1.47

Monthly Average Limits based on Human Threshold Criteria (HTC)

RECEIVING WATER FLOW = 221 cfs, (1/4 of Harmonic Mean), as specified in s. NR 106.06(4)(c), Wis. Adm. Code.

SUBSTANCE	HTC	MEAN BACK- GRD.	MO'LY AVE. LIMIT	1/5 OF EFFL. LIMIT	MEAN EFFL. CONC.	30-day P ₉₉
Antimony	373		19392	3878	0.56	
Cadmium	370	0.01	19236	3847	<0.17	
Chromium (+3)	3818000	0.5	198497373	39699475	<3.2	
Chromium (+6)	7636		396995	79399	5.7	
Lead	140	0.338	7261	1452	<5.4	
Mercury (ng/L)	1.5	4.376	1.5			1.47
Nickel	43000		2235565	447113	<4.7	
Phenol ⁺	2379		123684	24737	0.013	

+ The limit for this substance is based on a secondary value.

Monthly Average Limits based on Human Cancer Criteria (HCC)

RECEIVING WATER FLOW = 221 cfs, (1/4 of Harmonic Mean), as specified in s. NR 106.06(4)(c), Wis. Adm. Code.

SUBSTANCE	HCC	MEAN BACK- GRD.	MO'LY AVE. LIMIT	1/5 OF EFFL. LIMIT	MEAN EFFL. CONC.	30-day P ₉₉
Arsenic	13.3		691.5	138.3	1.2	
Chloroform	1960		101900	20380	0.2	
1,4-Dichlorobenzene	163		8474	1695	0.62	
BHC-tech. grade	0.047		2.444	0.489	0.0067	

In addition to evaluating the need for limits for each individual substance for which HCC exist, s. NR 106.06(8), Wis. Adm. Code, requires the evaluation of the cumulative cancer risk. Because no effluent limits are needed based on HCC, determination of the cumulative cancer risk is not needed per s. NR 106.06(8), Wis. Adm. Code.

Conclusions and Recommendations

Based on a comparison of the calculated limitations and effluent data, effluent limitations are required for Mercury. Limits and/or monitoring recommendations are made in the paragraphs below:

Total Residual Chlorine– Since chlorine is no longer used as an additive, all chlorine limits may be removed from the permit.

Antidegradation and Antibacksliding

Because the chlorination system is not present at the wastewater treatment facility, removal of the daily, weekly and monthly limits will not increase the concentration, level, or loading of chlorine to the Red Cedar River. Therefore, antidegradation would not be applicable. To be consistent with antibacksliding requirements, the chlorine limits may be removed in accordance with s. NR 207.12(4)(b), Wis. Adm. Code.

Chromium (+6)– Considering available effluent data, the mean effluent concentration is 5.7 µg/L. This concentration is below 1/5 of the calculated effluent limits. Based on the effluent variability and types of industrial dischargers, **monthly monitoring for Chromium (+6) is recommended.**

Mercury– The WQBEL for total recoverable mercury is set equal to the most stringent criterion of 1.3 ng/L, according to s. NR 106.06(6), Wis. Adm. Code, because the background concentration in the receiving water and similar inland streams is known to exceed 1.3 ng/L.

The 30-day P₉₉ of representative data is 1.47 ng/L, which is greater than the most stringent calculated mercury limit (wildlife criterion of 1.3 ng/L); therefore, **a limit is required for mercury.**

Section NR 106.145(4), Wis. Adm. Code, allows for eligibility for an alternative mercury effluent limitation if the permittee applies for an alternative mercury limit, which includes the submittal of a pollutant minimization plan. The Menomonie Wastewater Treatment Facility has submitted this application. Section NR 106.145(5), Wis. Adm. Code, specifies that an alternative limitation shall equal the 1-day P₉₉ of the effluent data and shall be expressed as a daily maximum concentration. Additionally, an alternative effluent limit for mercury may not be set greater than a previously established alternative mercury effluent limit unless previous monitoring was not representative of the discharge. The calculated 1-day P₉₉ of 2.6 ng/L is less than the current alternative effluent limit of 3.6 ng/L, therefore if a variance is granted and approved by US Environmental Protection Agency, then **an alternative mercury limitation of 2.6 ng/L, expressed as a daily maximum is required.**

PFOS and PFOA – The need for PFOS and PFOA monitoring is evaluated in accordance with s. NR 106.98(2), Wis. Adm. Code.

Available monitoring sample data from the Menomonie Waterworks (PWS ID: 61702685) is provided in the table below:

Water Supply PFAS Data

Sample Date	Sample ID	Well #	PFOS (ng/L)	PFOA (ng/L)
02/14/2023	CB01570-05	BF732	<0.31	<0.49
02/14/2023	CB01570-01	BF734	<0.3	<0.48
02/14/2023	CB01570-03	YQ310	<0.3	<0.48
Average =			ND	ND

The limited data above shows the municipal water supply is below 1/5th of the applicable PFOS and PFOA criteria.

Previous effluent monitoring produced a PFOS result of 5.36 ng/L and a PFOA result of 10.3 ng/L. The PFOS result is greater than one fifth of the criterion. Based on the effluent flow rate, the types of indirect dischargers contributing to the collection system, and the available PFOS/PFOA monitoring data, **PFOS and PFOA monitoring is recommended once every two months.**

PART 3 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR AMMONIA NITROGEN

The State of Wisconsin promulgated revised water quality standards for ammonia nitrogen in ch. NR 105, Wis. Adm. Code, effective March 1, 2004 which includes criteria based on both acute and chronic toxicity to aquatic life. Given the fact that the Menomonie Wastewater Treatment Facility does not currently have ammonia nitrogen limits, the need for limits is evaluated at this time.

Daily Maximum Limits based on Acute Toxicity Criteria (ATC)

Daily maximum limitations are based on acute toxicity criteria in ch. NR 105, Wis. Adm. Code, which are a function of the effluent pH and the receiving water classification. The acute toxicity criterion (ATC) for ammonia is calculated using the following equation:

$$\text{ATC in mg/L} = [A \div (1 + 10^{(7.204 - \text{pH})})] + [B \div (1 + 10^{(\text{pH} - 7.204)})]$$

Where:

A = 0.411 and B = 58.4 for a Warm Water Sport Fishery, and

pH (s.u.) = that characteristic of the effluent.

The effluent pH data was examined as part of this evaluation. A total of 1949 samples were reported from October 2020 to January 2026. The maximum reported value was 7.80 s.u. (Standard pH Units). The effluent pH was 7.60 s.u. or less 99% of the time. The 1-day P₉₉, calculated in accordance with s. NR 106.05(5), Wis. Adm. Code, is 7.67 s.u. The mean plus the standard deviation multiplied by a factor of 2.326, an estimate of the upper ninety ninth percentile for a normally distributed dataset, is 7.66 s.u. Therefore, a value of 7.67 s.u. is believed to represent the maximum reasonably expected pH, and therefore most appropriate for determining daily maximum limitations for ammonia nitrogen. Substituting a value of 7.67 s.u. into the equation above yields an ATC = 15.19 mg/L.

Daily Maximum Ammonia Nitrogen Effluent Limitations Calculation Method

In accordance with s. NR 106.32(2), Wis. Adm. Code daily maximum ammonia limitations are calculated using the 1-Q₁₀ receiving water low flow if it is determined that the previous method of acute ammonia limit calculation (2×ATC) is not sufficiently protective of the fish and aquatic life. The more restrictive calculated limits shall apply.

The calculated daily maximum ammonia nitrogen effluent limits using the mass balance approach with the 1-Q₁₀ (estimated as 80 % of 7-Q₁₀) and the 2×ATC approach are shown below.

Daily Maximum Ammonia Nitrogen Determination

	Ammonia Nitrogen Limit mg/L
2×ATC	30.4
1-Q ₁₀	1236

The 2×ATC method yields the most stringent limits for the Menomonie Wastewater Treatment Facility.

Presented below is a table of daily maximum limitations corresponding to various effluent pH values.

Daily Maximum Ammonia Nitrogen Limits – WWSF

Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L	Effluent pH s.u.	Limit mg/L
$6.0 \leq \text{pH} \leq 6.1$	108	$7.0 < \text{pH} \leq 7.1$	66	$8.0 < \text{pH} \leq 8.1$	14
$6.1 < \text{pH} \leq 6.2$	106	$7.1 < \text{pH} \leq 7.2$	59	$8.1 < \text{pH} \leq 8.2$	11
$6.2 < \text{pH} \leq 6.3$	104	$7.2 < \text{pH} \leq 7.3$	52	$8.2 < \text{pH} \leq 8.3$	9.4
$6.3 < \text{pH} \leq 6.4$	101	$7.3 < \text{pH} \leq 7.4$	46	$8.3 < \text{pH} \leq 8.4$	7.8
$6.4 < \text{pH} \leq 6.5$	98	$7.4 < \text{pH} \leq 7.5$	40	$8.4 < \text{pH} \leq 8.5$	6.4
$6.5 < \text{pH} \leq 6.6$	94	$7.5 < \text{pH} \leq 7.6$	34	$8.5 < \text{pH} \leq 8.6$	5.3
$6.6 < \text{pH} \leq 6.7$	89	$7.6 < \text{pH} \leq 7.7$	29	$8.6 < \text{pH} \leq 8.7$	4.4
$6.7 < \text{pH} \leq 6.8$	84	$7.7 < \text{pH} \leq 7.8$	24	$8.7 < \text{pH} \leq 8.8$	3.7
$6.8 < \text{pH} \leq 6.9$	78	$7.8 < \text{pH} \leq 7.9$	20	$8.8 < \text{pH} \leq 8.9$	3.1
$6.9 < \text{pH} \leq 7.0$	72	$7.9 < \text{pH} \leq 8.0$	17	$8.9 < \text{pH} \leq 9.0$	2.6

Weekly and Monthly Average Limits based on Chronic Toxicity Criteria (CTC)

The ammonia limit calculation also warrants evaluation of weekly and monthly average limits based on chronic toxicity criteria for ammonia, because those limits relate to the assimilative capacity of the receiving water.

Weekly average and monthly average limits for ammonia nitrogen are based on chronic toxicity criteria in ch. NR 105, Wis. Adm. Code.

The 30-day chronic toxicity criterion (CTC) for ammonia in waters classified as a Warm Water Sport Fish Community is calculated by the following equation, according to subchapter IV of NR 106, Wis. Adm. Code.

$$\text{CTC} = E \times \{ [0.0676 \div (1 + 10^{(7.688 - \text{pH})})] + [2.912 \div (1 + 10^{(\text{pH} - 7.688)})] \} \times C$$

Where:

pH = the pH (s.u.) of the receiving water,

E = 0.854,

C = the minimum of 2.85 or $1.45 \times 10^{(0.028 \times (25 - T))}$ – (Early Life Stages Present), or

C = $1.45 \times 10^{(0.028 \times (25 - T))}$ – (Early Life Stages Absent), and

T = the temperature (°C) of the receiving water – (Early Life Stages Present), or

T = the maximum of the actual temperature (°C) and 7 – (Early Life Stages Absent)

The 4-day criterion is equal to the 30-day criterion multiplied by 2.5. The 4-day criteria are used in a mass-balance equation with the 7-Q₁₀ (4-Q₃, if available) to derive weekly average limitations. And the 30-day criteria are used with the 30-Q₅ (estimated as 85% of the 7-Q₂ if the 30-Q₅ is not available) to derive monthly average limitations. The stream flow value is further adjusted to temperature; 100% of the flow is used if the Temperature ≥ 16 °C, 25% of the flow is used if the Temperature < 11 °C, and 50% of the flow is used if the Temperature ≥ 11 °C but < 16 °C.

Section NR 106.32 (3), Wis. Adm. Code, provides a mechanism for less stringent weekly average and monthly average effluent limitations when early life stages (ELS) of critical organisms are absent from the receiving water. This applies only when the water temperature is less than 14.5 °C, during the winter and spring months. Burbot, an early spawning species, are not believed to be present in the Red Cedar River, based on raw fish data in the Fisheries Management Information System. So “ELS Absent” criteria apply from October through March, and “ELS Present” criteria will apply from April through September for a Warm Water Sport Fish classification.

The default basin assumed values are used for temperature and background ammonia. The pH values are from the Red Cedar River. These values are shown in the table below, with the resulting criteria and effluent limitations.

Weekly and Monthly Average Ammonia Nitrogen Limits – WWSF

		April & May	June - September	October - March
Effluent Flow	Qe (MGD)	2.80	2.80	2.80
Background Information	7-Q ₁₀ (cfs)	437	437	437
	7-Q ₂ (cfs)	617	617	617
	Ammonia (mg/L)	0.07	0.05	0.06
	Average Temperature (°C)	12	22	3.1
	Maximum Temperature (°C)	16	24	11
	pH (s.u.)	8.32	8.49	7.90
	% of Flow used	50	100	25
	Reference Weekly Flow (cfs)	218.50	437.00	109.25
	Reference Monthly Flow (cfs)	262.23	524.45	131.11
Criteria mg/L	4-day Chronic			
	Early Life Stages Present	3.45	1.51	6.99
	Early Life Stages Absent	3.45	1.51	8.71
	30-day Chronic			
	Early Life Stages Present	1.38	0.61	2.80
	Early Life Stages Absent	1.38	0.61	3.48
Effluent Limitations mg/L	Weekly Average			
	Early Life Stages Present	174	149	
	Early Life Stages Absent			227
	Monthly Average			
	Early Life Stages Present	80	68	
	Early Life Stages Absent			107

Effluent Data

The following table evaluates the statistics based upon ammonia data reported from November 2020 to December 2025.

Ammonia Nitrogen Effluent Data

Ammonia Nitrogen mg/L	April & May	June - September	October - March
1-day P ₉₉			57.3
4-day P ₉₉			31.0
30-day P ₉₉			15.6
Mean	18.0	0.7	9.4
Std	17.0	0.9	12.1
Sample size	2	8	11
Range	6 - 30	0.1 - 2.8	0.063 - 37

Reasonable Potential

The need to include ammonia limits in the Menomonie Wastewater Treatment Facility permit is determined by calculating 99th upper percentile (or P₉₉) values for ammonia during the month ranges and comparing those to the calculated limits. Based on this comparison, daily limits are required October through May.

Expression of Limits

Revisions to ch. NR 106, Wis. Adm. Code, in September 2016 aligned Wisconsin's WQBELs with 40 CFR § 122.45(d), which specifies that effluent limits for continuous dischargers must be expressed as weekly and monthly averages for publicly owned treatment works and as daily maximums and monthly averages for all other dischargers, unless shown to be impracticable. Because a daily maximum ammonia limit is necessary for the Menomonie Wastewater Treatment Facility, weekly and monthly average limits are also required under this code revision.

The methods for calculating limitations for municipal treatment facilities to conform to 40 CFR 122.45(d) are specified in s. NR 106.07(3), Wis. Adm. Code, and are as follows:

Whenever a daily maximum limitation is determined necessary to protect water quality, a weekly and monthly average limitation shall also be included in the permit and set equal to the daily maximum limit unless a more restrictive limit is already determined necessary to protect water quality.

In this case, the recommended daily maximum limits vary with effluent pH, so additional limits should be set equal to the highest recommended limit. Therefore, **monthly and weekly average limits of 108 mg/L** are recommended in the permit.

Conclusions and Recommendations

In summary, after rounding to two significant figures, the following ammonia nitrogen limitations are recommended. No mass limitations are recommended in accordance with s. NR 106.32(5), Wis. Adm. Code.

Final Ammonia Nitrogen Limits

Daily Maximum mg/L	Weekly Average mg/L	Monthly Average mg/L
Variable	108	108

Additional limits to meet the requirements in s. NR 106.07, Wis. Adm Code, are denoted in bold text.

PART 4 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR BACTERIA

On May 1, 2020, revisions to chs. NR 102 and NR 210, Wis. Adm. Codes, became effective which replace fecal coliform limits with new *Escherichia coli* (*E. coli*) limits for protection of recreational uses. Section NR 210.06(2)(a)1, Wis. Adm. Code, includes two limits which must be included in permits for facilities which are required to disinfect:

1. The geometric mean of *E. coli* bacteria in effluent samples collected in any calendar month may not exceed 126 counts/100 mL.
2. No more than 10 percent of *E. coli* bacteria samples collected in any calendar month may exceed 410 counts/100 mL.

Because the Menomonie Wastewater Treatment Facility permit requires weekly monitoring, the 410 counts/100 mL limit will effectively function as a daily maximum limit unless the facility performs additional monitoring. Any additional monitoring beyond what is required by the permit must also be reported on the DMR as required in the standard requirements section of the permit.

These limits are required May through September. No changes are recommended to the current recreational period and the required disinfection season.

Effluent Data

The Menomonie Wastewater Treatment Facility has monitored effluent *E. coli* from May 2021 to September 2025 and a total of 193 results are available. A geometric mean of 126 counts/100 mL was never exceeded in the 25 months of disinfection, with a maximum monthly geometric mean of 83 counts/100 mL. Effluent data has exceeded 410 counts/100 mL 4 times (which is 2% of the total sample results). The maximum reported value was 6000 counts/100 mL.

PART 5 – PHOSPHORUS

Technology-Based Effluent Limit

Subchapter II of Chapter NR 217, Wis. Adm. Code, requires municipal wastewater treatment facilities that discharge greater than 150 pounds of total phosphorus per month to comply with a monthly average limit of 1.0 mg/L, or an approved alternative concentration limit.

Since the Menomonie Wastewater Treatment Facility has phosphorus limits in effect that are more stringent than 1.0 mg/L, the need for a TBEL will not be considered further.

In addition, the need for a WQBEL for phosphorus must be considered.

Water Quality-Based Effluent Limits (WQBEL)

Revisions to administrative rules regulating phosphorus took effect on December 1, 2010. These rule revisions include additions to s. NR 102.06, Wis. Adm. Code, which establish phosphorus standards for surface waters. Subchapter III of NR 217, Wis. Adm. Code, establishes procedures for determining WQBELs for phosphorus, based on the applicable standards in ch. NR 102, Wis. Adm. Code.

Section NR 102.06(3)(a), Wis. Adm. Code, specifically names river segments for which a phosphorus criterion of 0.100 mg/L applies. For other stream segments that are not specified in s. NR 102.06(3)(a), Wis. Adm. Code, s. NR 102.06(3)(b), Wis. Adm. Code, specifies a phosphorus criterion of 0.075 mg/L. The phosphorus criterion of 0.100 mg/L applies for the Red Cedar River.

The conservation of mass equation is described in s. NR 217.13(2)(a), Wis. Adm. Code, for phosphorus WQBELs and includes variables of water quality criterion (WQC), receiving water flow rate (Q_s), effluent flow rate (Q_e), and upstream phosphorus concentrations (C_s) provided below.

$$\text{Limitation} = [(WQC)(Q_s + (1-f) Q_e) - (Q_s - f Q_e) (C_s)] / Q_e$$

Where:

WQC = 0.100 mg/L for the Red Cedar River

Q_s = 100% of the 7- Q_2 of 617 cfs

C_s = background concentration of phosphorus in the receiving water pursuant to s. NR 217.13(2)(d), Wis. Adm. Code

Q_e = effluent flow rate = 2.80 MGD = 4.33 cfs

f = the fraction of effluent withdrawn from the receiving water = 0

Section NR 217.13(2)(d), Wis. Adm. Code, specifies that the background phosphorus concentration used in the limit calculation formula shall be calculated as a median using the procedures specified in s. NR 102.07(1)(b) to (c), Wis. Code. All representative data from the most recent 5 years shall be used, but data from the most recent 10 years may be used if representative of current conditions.

The following data were considered in estimating the background phosphorus concentration:

In Stream Total Phosphorus Data	
SWIMS ID	173208
Station Name	Red Cedar River at Menomonie Hydro
Waterbody	Red Cedar River
Sample Count	59
First Sample	05/11/2016
Last Sample	10/14/2025
Mean	0.111
Median	0.100
NR 217 Median	0.100

Substituting a background concentration equal to criteria into the limit calculation equation above would result in a calculated limit that is equal to the applicable criterion of 0.100 mg/L.

Effluent Data

The following table summarizes effluent total phosphorus monitoring data from October 2020 to January 2026.

Total Phosphorus Effluent Data

	Phosphorus mg/L
1-day P ₉₉	1.62
4-day P ₉₉	0.94
30-day P ₉₉	0.60
Mean	0.44
Std	0.32
Sample size	1393
Range	0.062 - 3.1

Reasonable Potential Determination

The discharge has reasonable potential to cause or contribute to an exceedance of the water quality criterion and is currently operating the treatment facility to remove phosphorus and meet the WQBELs. Therefore, **the WQBELs are required to continue in the reissued permit per ss. NR 217.15 and 205.067(5), Wis. Adm. Codes.**

Limit Expression

According to s. NR 217.14(2), Wis. Adm. Code, because the calculated WQBEL is less than or equal to 0.3 mg/L, the effluent limit of 0.100 mg/L may be expressed as a six-month average. If a concentration limitation expressed as a six-month average is included in the permit, a monthly average concentration limitation of 0.300 mg/L, equal to three times the WQBEL calculated under s. NR 217.13, Wis. Adm. Code shall also be included in the permit. The six-month average should be averaged during the months of May – October and November – April.

Mass Limits

A mass limit is also required, pursuant to s. NR 217.14(1)(a), Wis. Adm. Code, because the discharge is to a surface water that is impaired for phosphorus. **This final mass limit shall be $0.100 \text{ mg/L} \times 8.34 \times 2.80 \text{ MGD} = 2.3 \text{ lbs/day}$ expressed as a six-month average.**

PART 6 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR THERMAL

Surface water quality standards for temperature took effect on October 1, 2010. These regulations are detailed in chs. NR 102 (Subchapter II – Water Quality Standards for Temperature) and NR 106 (Subchapter V – Effluent Limitations for Temperature) of the Wisconsin Administrative Code. Daily maximum and weekly average temperature criteria are available for the 12 different months of the year depending on the receiving water classification.

Due to the amount of upstream flow available for dilution in the limit calculation ($Q_s:Q_e > 30:1$), the lowest calculated limitation is 120° F (s. NR 106.55(6)(a), Wis. Adm. Code). For treatment systems of domestic waste, there is no reasonable potential for the discharge to exceed this limit. **Therefore, temperature limits and monitoring are not recommended.**

PART 7 – WHOLE EFFLUENT TOXICITY (WET)

WET testing is used to measure, predict, and control the discharge of toxic materials that may be harmful to aquatic life. In WET tests, organisms are exposed to a series of effluent concentrations for a given time and effects are recorded. Decisions below related to the selection of representative data and the need for WET limits were made according to ss. NR 106.08 and 106.09, Wis. Adm. Code. WET monitoring frequency and toxicity reduction evaluation (TRE) recommendations were made using the best professional judgment of staff familiar with the discharge after consideration of the guidance in the *Whole Effluent Toxicity (WET) Program Guidance Document* (2022).

- Acute tests predict the concentration that causes lethality of aquatic organisms during a 48 to 96-hour exposure. To assure that a discharge is not acutely toxic to organisms in the receiving water, WET tests must produce a statistically valid LC50 (Lethal Concentration to 50% of the test organisms) greater than 100% effluent, according to s. NR 106.09(2)(b), Wis. Adm. Code.
- Chronic tests predict the concentration that interferes with the growth or reproduction of test organisms during a seven-day exposure. To assure that a discharge is not chronically toxic to organisms in the receiving water, WET tests must produce a statistically valid IC₂₅ (Inhibition Concentration) greater than the instream waste concentration (IWC). The IWC is an estimate of the proportion of effluent to total volume of water (receiving water + effluent). The IWC of 4% shown in the WET Checklist summary below was calculated according to the following equation, as specified in s. NR 106.03(6):

$$\text{IWC (as \%)} = Q_e \div \{(1 - f) Q_e + Q_s\} \times 100$$

Where:

Q_e = annual average flow = 2.798 MGD = 4.329 cfs

f = fraction of the Q_e withdrawn from the receiving water = 0

Q_s = 1/4 of the 7- Q_{10} = 437 cfs ÷ 4 = 109.25 cfs

- According to the *State of Wisconsin Aquatic Life Toxicity Testing Methods Manual* (s. NR 219.04, Table A, Wis. Adm. Code), a synthetic (standard) laboratory water may be used as the dilution water and primary control in acute WET tests, unless the use of different dilution water is approved by the Department prior to use. The primary control water must be specified in the WPDES permit. Receiving water must be used as the dilution water and primary control in chronic WET tests, unless the use of different dilution water is approved by the Department prior to use. The dilution water used in WET tests conducted on Outfall 001 shall be a grab sample collected from the receiving water location, upstream and out of the influence of the mixing zone and any other known discharge. The specific receiving water location must be specified in the WPDES permit.

Attachment #1

- Shown below is a tabulation of all available WET data for Outfall 001. Efforts are made to ensure that decisions about WET monitoring and limits are made based on representative data, as specified in s. NR 106.08(3), Wis. Adm Code. Data which is not believed to be representative of the discharge was not included in reasonable potential calculations. The table below differentiates between tests used and not used when making WET determinations.

WET Data History

Date Test Initiated	Acute Results LC ₅₀ %				Chronic Results IC ₂₅ %					Footnotes or Comments
	<i>C. dubia</i>	Fathead minnow	Pass or Fail?	Used in RP?	<i>C. dubia</i>	Fathead Minnow	Algae (IC ₅₀)	Pass or Fail?	Use in RP?	
08/24/1993					100	100			No	1
10/11/1994	>100	>100	Pass	No		>80			No	1
12/13/1994	>100	>100	Pass	No	14.7	>80			No	1
03/28/1995	>100	>100	Pass	No	>80				No	1
06/13/2000	>100	>100	Pass	No	>100	>100			No	1
10/15/2002	>100	>100	Pass	No	>100	>100			No	1
06/08/2004	>100	>100	Pass	No	>100	>100			No	1
08/16/2005	>100	>100	Pass	No	>100	>100			No	1
12/05/2006	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
02/08/2007	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
10/06/2009	>100			Yes	>100	>100		Pass	Yes	
03/09/2010	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
05/24/2011	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
08/21/2012	>100	>100	Pass	Yes	72.9	>100		Pass	Yes	
10/15/2013	>100	>100	Pass	Yes	46.6	100		Pass	Yes	
03/17/2015	>100	>100	Pass	Yes	88.9	>100		Pass	Yes	
05/17/2016	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
08/01/2017	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
12/04/2018	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
03/05/2019	>100	>100	Pass	Yes	49	49.2		Pass	Yes	
03/26/2019						57.4		Pass	Yes	
05/05/2020	>100	>100	Pass	Yes	45.3	38.3		Pass	Yes	
06/21/2021	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
07/19/2022	>100	>100	Pass	Yes	>100	>100		Pass	Yes	
11/28/2023	>100	>100	Pass	Yes	47	>100		Pass	Yes	
05/14/2024	>100	>100	Pass	Yes	>100	>100		Pass	Yes	

Footnotes:

- Data Not Representative.* Significant changes were made to WET test methods in 2004 and these changes were assumed to be fully implemented by certified labs by no later than June 2005.

Attachment #1

- According to s. NR 106.08, Wis. Adm. Code, WET reasonable potential is determined by multiplying the highest toxicity value that has been measured in the effluent by a safety factor, to predict the likelihood (95% probability) of toxicity occurring in the effluent above the applicable WET limit. The safety factor used in the equation changes based on the number of toxicity detects in the dataset. The fewer detects present, the higher the safety factor, because there is more uncertainty surrounding the predicted value. **WET limits must be given, according to s. NR 106.08(6), Wis. Adm. Code, whenever the applicable Reasonable Potential equation results in a value greater than 1.0.**

According to s. NR 106.08(6)(d), TUa and TUC effluent values are equal to zero whenever toxicity is not detected (i.e. when the LC₅₀, IC₂₅ or IC₅₀ ≥ 100%).

Acute Reasonable Potential = 0 < 1.0, reasonable potential is not shown and a limit is not required.

Chronic Reasonable Potential = [(TUc effluent) (B) (IWC)]

Chronic WET Limit Parameters

TUc (maximum) 100/IC ₂₅	B (multiplication factor from s. NR 106.08(6)(c), Wis. Adm. Code, Table 4)	IWC
100/38.3 = 2.61 TUc	2.0 Based on 7 detects.	4%

$$[(TUc \text{ effluent}) (B)(IWC)] = 0.21 < 1.00$$

Therefore, no reasonable potential is shown for WET limits using the procedures in s. NR 106.08(6), Wis. Adm. Code, and representative data from 2007 to 2024.

The WET checklist was developed to help DNR staff make recommendations regarding WET limits, monitoring, and other related permit conditions. The checklist indicates whether acute and chronic WET limits are needed, based on requirements specified in s. NR 106.08, Wis. Adm. Code. The checklist steps the user through a series of questions, assesses points based on the potential for effluent toxicity, and suggests monitoring frequencies based on points accumulated during the checklist analysis. As toxicity potential increases, more points accumulate, and more monitoring is recommended to ensure that toxicity is not occurring. A summary of the WET checklist analysis completed for this permittee is shown in the table below. Staff recommendations based on best professional judgment are provided below the summary table. For guidance related to reasonable potential and the WET checklist, see Chapter 1.3 of the WET Guidance Document: <https://dnr.wisconsin.gov/topic/Wastewater/WET.html>.

Attachment #1
WET Checklist Summary

	Acute	Chronic
AMZ/IWC	Not Applicable. 0 Points	IWC = 4%. 0 Points
Historical Data	17 tests used to calculate RP. No tests failed. 0 Points	18 tests used to calculate RP. No tests failed. 0 Points
Effluent Variability	Little variability, consistent WWTF operations. 0 Points	Same as Acute. 0 Points
Receiving Water Classification	Warm Water Sport Fish (5 pts) 5 Points	Same as Acute. 5 Points
Chemical-Specific Data	Reasonable potential for Ammonia limits based on ATC. (5 pts) Arsenic, Chloride, Chlorine, Chromium, Copper, Mercury, and Zinc detected. (3 pts) Additional Compounds of Concern: 1,4-Dichlorobenzene, Antimony, Chloroform, Delta-BHC, and Phenol (2 pts) 11 Points	No reasonable potential for limits based on CTC. Ammonia, Arsenic, Chloride, Chromium, Copper, Mercury, and Zinc detected. (3 pts) Additional Compounds of Concern: 1,4-Dichlorobenzene, Antimony, Chloroform, Delta-BHC, and Phenol (2 pts) 5 Points
Additives	Two Water Quality Conditioners (2 pts) added. Permittee has proper P chemical SOPs in place. 2 Points	All additives are used more frequently than once per 4 days. 2 Points
Discharge Category	Four Industrial Contributors. 8 Points	Same as Acute. 8 Points
Wastewater Treatment	Secondary or Better 0 Points	Same as Acute. 0 Points
Downstream Impacts	No impacts known. 0 Points	Same as Acute. 0 Points
Total Checklist Points:	26 Points	20 Points
Recommended Monitoring Frequency (from Checklist):	1x yearly throughout permit term (rotating quarters)	1x yearly throughout permit term (rotating quarters)
Limit Required?	No	No
TRE Recommended? (from Checklist)	No	No

- After consideration of the guidance provided in the Department's *WET Program Guidance Document* (2022) and other information described above, annual acute and chronic WET tests are recommended in the reissued permit. Sampling WET concurrently with any chemical-specific toxic substances is recommended. Tests should be done in rotating quarters, to collect seasonal information about this discharge. Testing should continue after the permit expiration date (until the permit is reissued).
- A minimum of annual acute and chronic monitoring is recommended because the Menomonie Wastewater Treatment Facility is a major municipal discharger with a design flow greater than 1.0 MGD. Federal regulations at 40 CFR Part 122.21(j) require at least 4 acute and chronic WET tests with each permit application on samples collected since the previous reissuance. Therefore, annual monitoring is recommended in the permit term, so that data will be available for the next permit application.

PART 8 – ADDITIVE REVIEW

Unlike the metals and toxic substances evaluated in Part 2, most additives have not undergone the amount of toxicity testing needed to calculate water quality criteria. Instead, in cases where the minimum data requirements necessary to calculate a WQC are not met, a secondary value can be used to regulate the substance, according to s. NR 105.05, Wis. Adm. Code. Whenever an additive is discharged directly into a surface water without receiving treatment or an additive is used in the treatment process and is not expected to be removed before discharge, a review of the additive is needed. Secondary values should be derived according to s. NR 105.05, Wis. Adm. Code. Guidance related to conducting an additive review can be found in *Water Quality Review Procedures for Additives* (2022)

<https://dnr.wisconsin.gov/topic/Wastewater/Additives.html>

Additive Parameters

Additive Name	Purpose of Additive	Frequency of Use	Max Usage Rate	Max Effluent Concentration (mg/L)	Use Restriction (mg/L)
NS 49510M	Sludge Thickening	>4 days/week	28 lbs/day	N/A	N/A
Hyper+ Ion 1997	Phosphorus Control	>4 days/week	60 lbs/day	22	24.67

With the current SOP in place, NS 49510M is added to the sludge line, prior to the gravity belt thickener. Since the gravity belt filtrate is returned the head of the primary clarifiers, this additive is not expected to be present in the final effluent discharge.

Hyper+ Ion 1997 is not expected to be present in the effluent at concentrations greater than the calculated Secondary Acute Value (SAV) of 24.67 mg/L.



Menomonie WWTF



Map: 0 180 360 Feet
0 50 100 Meters

Service Layer Credits:
DNR Basic Feature VTL (WTL): Wisconsin Department of Natural Resources, GIS Section, Latest Leaf Off-
Output & Determinations: WI DNR Bureau of Watershed Management

Map projection: NAD 1983 HARN Wisconsin TN

This map is a product generated by a third party. The user is solely responsible for verifying the accuracy of information before using for any purpose. By using this product for any purpose user agrees to be bound by all disclaimers found here: <https://www.dnr.wisconsin.gov/faq>

Date Printed: 3/6/2026 8:45 AM

- Legend:**
- ▲ Surface Water Outfalls
 - Latest Leaf Off Index
 - Latest Leaf Off Imagery

Notes:





City of Menomonee – Wastewater Utility

800 Wilson Avenue
Menomonee, WI 54751

Phone – 715/232-2175
Fax – 715/232-2249
Website – menomonee-wi.gov

March 26, 2024

Mr. Adebowale Adesanwo
Wisconsin Department of Natural Resources
1300 West Clairemont Avenue
Eau Claire, WI 54701



RE: New Mercury PMP Plan for the Next Permit Renewal

Dear Mr. Adesanwo:

Please find enclosed the new Mercury PMP Plan for the City of Menomonee WWTP due April 1, 2024. The last section, Appendix A, contains the City's Sewer Use Ordinance.

Please contact me if you have any questions or comments.

Best Regards,

Paul Sterk
Wastewater Utility Superintendent



Paul Sterk <psterk@menomonie-wi.gov>

Menomonie Mercury PMP

Adesanwo, Adebawale C - DNR <adebowale.adesanwo@wisconsin.gov>

Wed, Mar 29, 2023 at 8:19 AM

To: Paul Sterk <psterk@menomonie-wi.gov>

Good afternoon,

Thanks for the email. As an FYI, please add the number of the report for future reports.

Also as an FYI, when Menomonie needs to submit its permit Application in early 2025 around the end of March, early April 2025, it is the expectation that a **New PMP plan** needs to be submitted, and it is recommended that this document be submitted 1 year before the Permit application is due, so I recommended by **April 1, 2024**. Also I have attach an example of what the PMP plan should look like.

If you have questions, please let me know.

Sincerely,

We are committed to service excellence.

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

Adebawale "Wa-le" Adesanwo

Phone: (715) 684-2914 Ext. 137

Cell Phone: (715) 492-4047

Adebawale.adesanwo@wisconsin.gov

From: Paul Sterk <psterk@menomonie-wi.gov>

Sent: Thursday, March 23, 2023 2:21 PM

To: Thielen, Geisa B - DNR <Geisa.Thielen@wisconsin.gov>; Adesanwo, Adebawale C - DNR <adebowale.adesanwo@wisconsin.gov>

Subject: Menomonie Mercury PMP

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.

[Quoted text hidden]



Example of a PMP plan - Antigo PMP 4-22-21.docx

51K

Mercury Pollutant Minimization Program/Source Reduction Measures Plan
Menomonie Wastewater Treatment Facility
WPDES Permit Number WI-0024708
Revised: March 12, 2024

Section 1: Background

The City of Menomonie Wastewater Treatment Facility developed its original mercury pollutant minimization program in 2009. The City of Menomonie has been granted mercury variances as part of its WPDES permit since that time. The goal of the program is source reduction of mercury entering the wastewater collection system, with an end goal of reducing mercury in the final effluent to levels at or below 1.3 nanograms per liter (ng/L). The mercury PMP is a requirement of the variance.

Annual compliance reports have been submitted to the Wisconsin Department of Natural Resources to show progress of the minimization program.

Section 2: Summary of Pollutant Minimization Activities Since PMP Implementation

The Wastewater Utility's Mercury PMP focused on the four main waste discharge sectors: Dental Facilities, Medical Facilities, Academic, and Industrial.

An ordinance was drafted regarding mercury amalgam management and best management practices for dental offices and was adopted by the Common Council in February of 2010. Dental offices were contacted and questionnaires were completed regarding best management practices. Annual dental office inspections of records and amalgam separators are on-going.

Industrial facilities with the potential for discharging mercury, or meeting other mercury criteria, were contacted and sent questionnaires. Industrial inspections were conducted and meetings and personal contact with industries are ongoing. The wastewater treatment plant was self-evaluated. Mercury devices were inventoried and replaced wherever possible with non-mercury devices. All mercury was sent in for proper collection at the county hazardous waste collection events.

Medical and academic facilities were contacted as well. Mercury questionnaires were sent out and personal contact and on-site meetings are ongoing.

The Utility also promotes the City of Menomonie Solid Waste Department hazardous waste collection program. Public outreach regarding mercury is made during plant tours, through social media, and with educational door hangers regarding proper use of the City's sanitary collections system.

The City of Menomonie has installed reactive sand filters to meet low level phosphorus limits. The reactive sand filters were placed on line at the end of July 2023. Reactive sand filters have been used in other locations for the removal of metals. While mercury reduction in the final effluent was not the goal of the reactive sand filters, mercury samples collected since the start up of the reactive sand filters are encouraging with mercury levels at or below 1.3 ng/L.

Section 3: Summary of Pollutant Minimization Activities During the Current Permit 2020 - 2024

The frequency of dental office inspections was moved from bi-annually to annually. This helped to ensure that the amalgam separators were being inspected and maintained, especially during times of staff turnover.

Lift station mercury monitoring was done quarterly during the first two years of the permit cycle, November of 2020 through September 2022. The two lift stations that were targeted received the majority of the industrial flow within the city – Cherry Blossom lift station and 21st Street lift station. Sampling showed that Cherry Blossom lift station mercury concentrations averaged 42 ng/L and 21st Street lift station had an average mercury concentration of 229 ng/L. Cherry Blossom lift station receives most of its waste from the city's industrial area, while 21st Street lift station receives waste from fewer industries but also from three dental clinics and the hospital. These dental clinics all have compliant mercury amalgam installations. Industries discharging to 21st street lift station were sampled and found to be low in mercury.

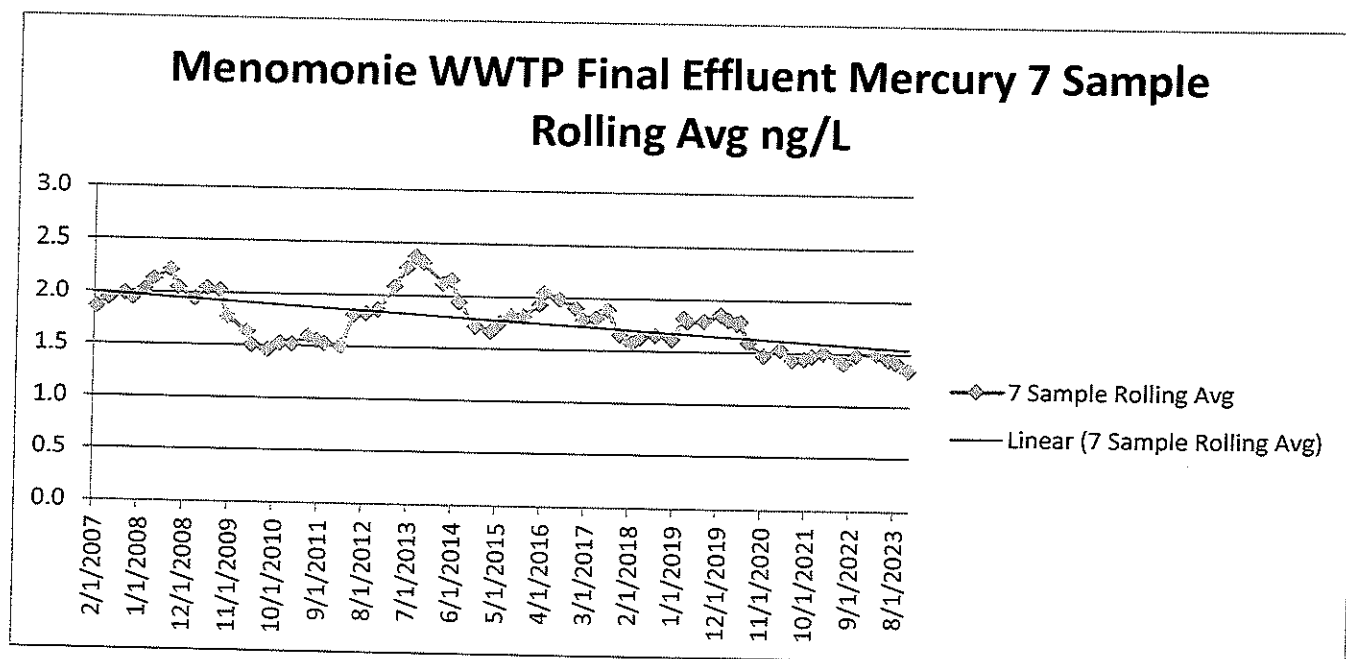
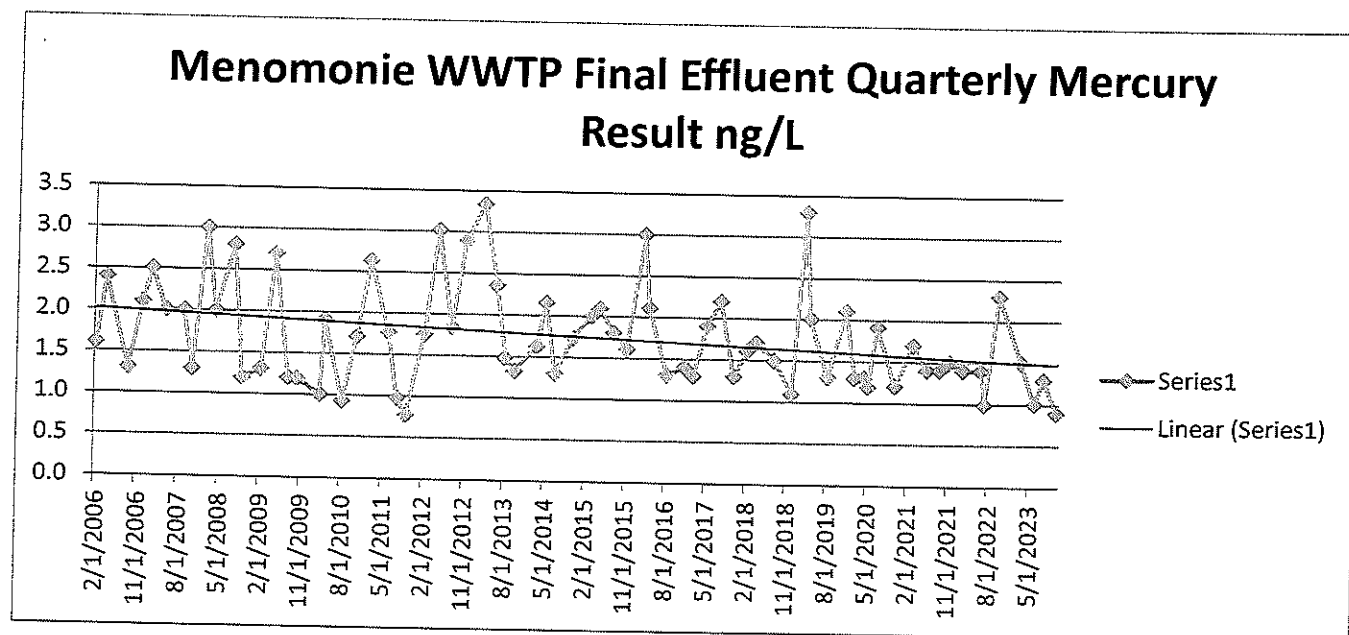
Hauled waste monitoring is being performed for sources other than domestic wastewater, mainly landfill leachate. The leachate from the three landfills that the WWTP receives waste from had no detect for mercury on all samples. Mercury concentrations in other hauled in waste was also not detected, or found to be at low levels.

Summer employees were hired in 2020 and 2021 to post door hangers around the city informing residents of best management practices for the city sewer including information regarding mercury. This did not go as well as planned as some residents did not appreciate having paper door hangers placed on their property. The wind and weather also presented a problem as the door hangers were often blow off and ended up on yards or in the street. It has been determined that electronic and social media is a less intrusive and a more effective way of educating the public, therefore door hangers will not be used going forward.

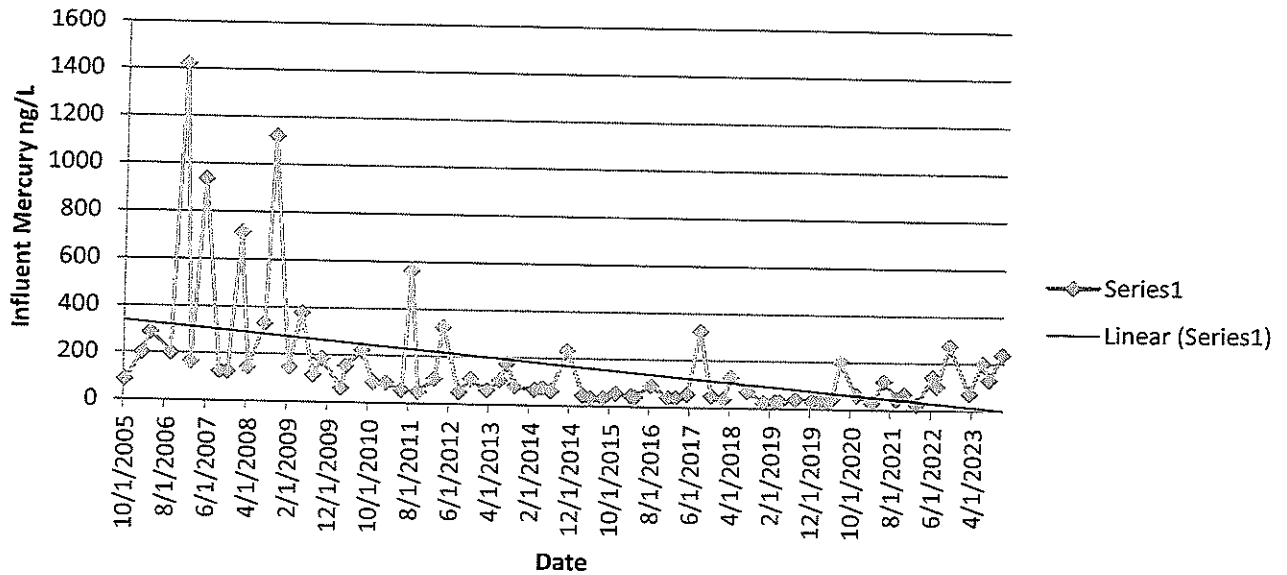
The City Website was revised in 2023. Information regarding the safe disposal of mercury as a hazardous waste is posted on the website.

Mercury Concentrations in Influent, Effluent, and Biosolids

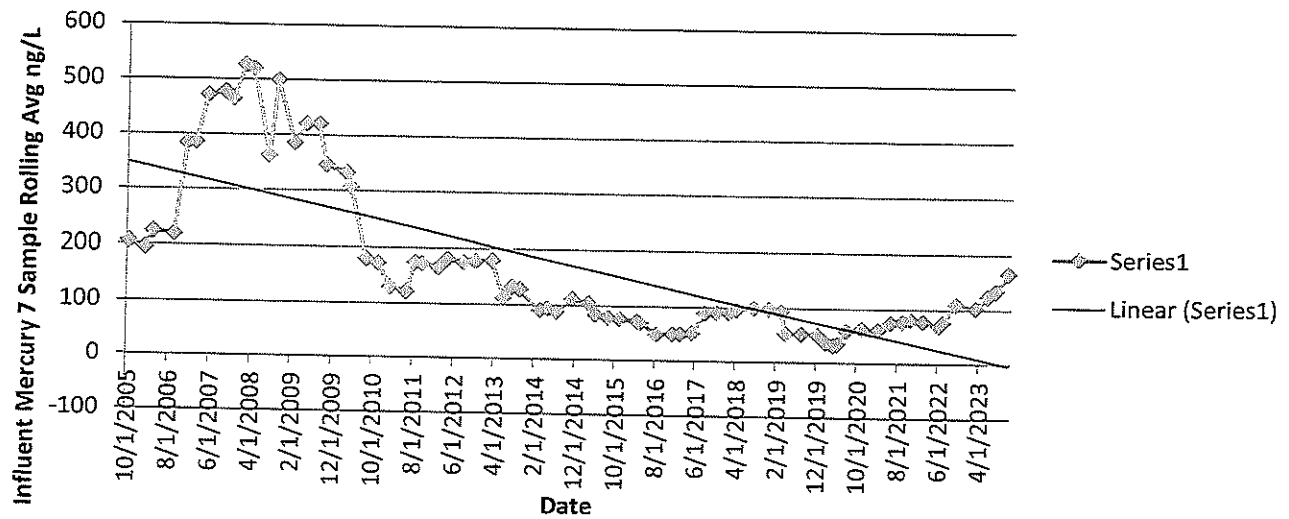
The Menomonie Wastewater Treatment Facility analyzes mercury in influent, effluent and biosolids on a quarterly basis. Concentrations of mercury have been variable at times, but overall, mercury levels have declined since the implementation of the mercury PMP in 2009. Trends for mercury in influent, effluent, and biosolids at the Menomonie WWTP are shown on the following tables.



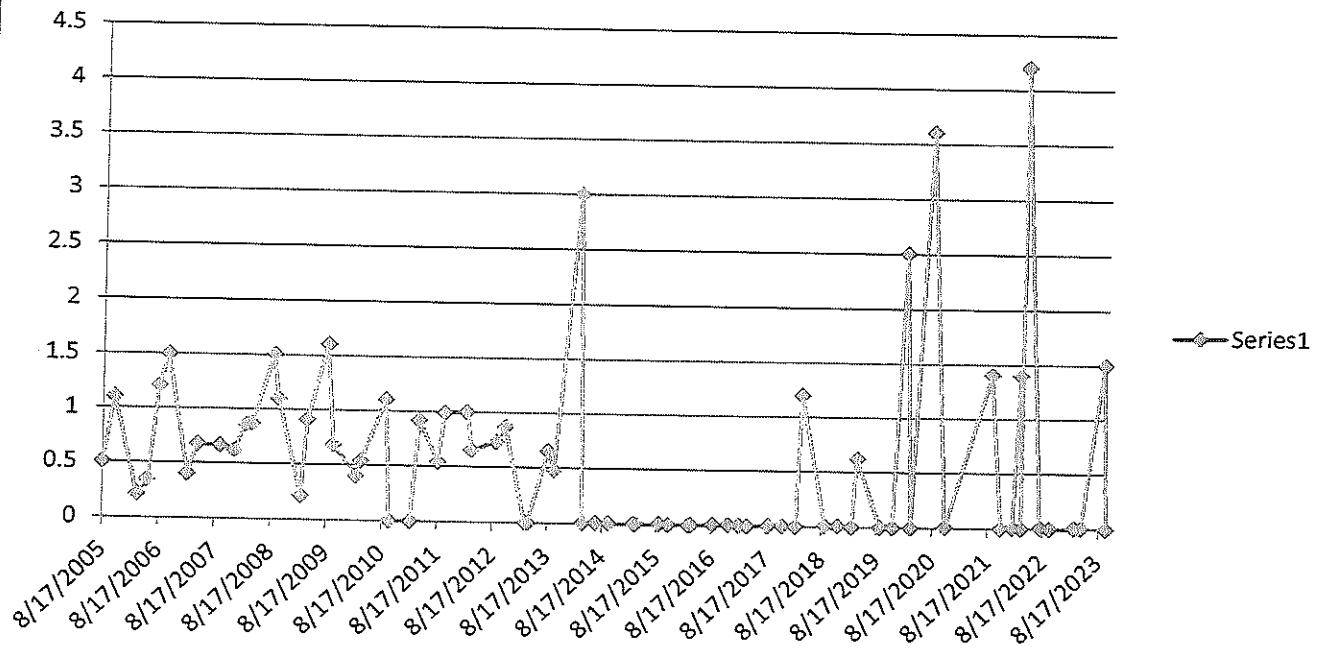
Menomonie WWTP Influent Quarterly Mercury Result ng/L



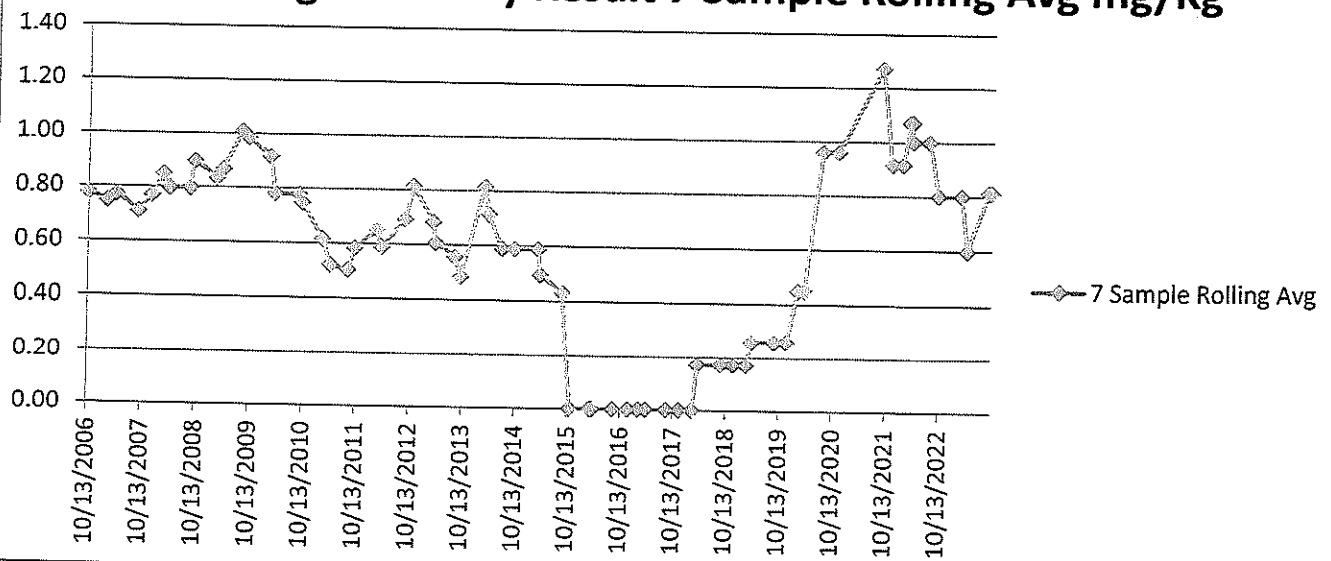
Menomonie WWTP Influent Mercury 7 Sample Rolling Average ng/L



Menomonie WWTP Sludge Mercury Quarterly Result mg/Kg



Sludge Mercury Result 7 Sample Rolling Avg mg/Kg



Section 4: Future Plans for the Mercury PMP During the Next 5 Year Permit

PMP Activities for Menomonie and the Public	1st Year	2nd Year	3rd Year	4th Year	5th Year
Continue to educate the public about the hazards of mercury, steer them away from the use of mercury containing products, and educate them on the proper disposal of mercury products.	X	X	X	X	X
1. Update the City's website with information regarding mercury	X	X	X	X	X
2. Work with the new City Communications Director to find new ways to reach out the public regarding mercury	X	X	X	X	X
3. Encourage the use of LED light bulbs rather than mercury containing fluorescent bulbs	X	X	X	X	X
4. Work with the City's Environmental Coordinator to encourage the public to dispose of mercury containing products through the annual Clean Sweep Hazardous Waste Collection Event	X	X	X	X	X
5. Continue to educate the public regarding the on-going collection of medications at the Sheriff's Department (Insulin contains mercury as a preservative)	X	X	X	X	X
6. Continue with quarterly monitoring of influent and effluent mercury	X	X	X	X	X
7. Update the City's Sewer Use Ordinance to lower the mercury limit for wastewater discharges. Current Limit is 1 ug/L.	X				

PMP Activities for Business	1st Year	2nd Year	3rd Year	4th Year	5th Year
1. The City will continue communications with local commercial and industrial facilities regarding best management practices for mercury	X	X	X	X	X
2. The City will continue to inspect dental office amalgam separators and records on an annual basis	X	X	X	X	X
3. The City will require leachate mercury analysis results from landfills that haul waste to the POTW	X	X	X	X	X
4. The City will require any new industries to complete form 7B: Industry Mercury Checklist	X*	X*	X*	X*	X*

X* - Ongoing as needed

Collection System Lift Station Study	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
1. Continue to sample the two largest lift stations that receive industrial waste (Cherry Blossom and 21 st Street Lift Stations)	X	X*	X*	X*	X*
2. Develop a study to identify mercury sources in the Stout Technology Park	X				
3. Elevated mercury levels in an area will be reviewed by additional sampling and/or investigation of mercury sources		X*	X*	X*	X*
4. Develop a plan to see if any additional lift stations should be sampled	X*				
5. Sample any lift stations identified in step 4 above		X	X		
6. Investigate any elevated mercury levels from step 5 above			X	X	X

X* - Ongoing as needed

Appendix A

City of Menomonie Sewer Use Ordinance

CHAPTER 2

CITY SEWER UTILITY

SECTION:

8-2-1: Creation Of Sewer District

8-2-2: Definitions

8-2-3: General Rules And Regulations

8-2-4: Specific Rules And Regulations

8-2-4-1: Plumbers

8-2-4-2: Users

8-2-4-3: Private Sewage Disposal

8-2-4-4: Building Sewers And Connections

8-2-4-5: General Discharge Prohibitions

8-2-4-6: Limited And Restricted Discharges

8-2-4-7: Amalgam Management Of Dental Offices

8-2-5: Sewer User Charge System

8-2-6: Enforcement; Permit Suspension Or Revocation; Hearing

8-2-7: Penalties

8-2-8: Effect Of Adoption

8-2-9: Severability

8-2-1: CREATION OF SEWER DISTRICT:

One sewer district, to be known as the Menomonie sewer district, embracing all the territory within the corporate limits of the city, is hereby created. This district shall be administered by the Menomonie sewer utility. (1975 Code Ch. 5 § 1)

8-2-2: DEFINITIONS:

Unless the context specifically indicates otherwise, the meaning of terms used in this chapter shall be as follows:

ACT: The clean water act (33 USC 1251 et seq.), as amended.

AMMONIA NITROGEN (NH₃-N): One of the oxidation states of nitrogen, in which nitrogen is combined with hydrogen in molecular form as NH₃ or in ionized form as NH₄. Quantitative determination of ammonia nitrogen shall be made in accordance with procedures set forth in "standard methods" or chapter NR 149 of the Wisconsin administrative code.

APPROVING AUTHORITY OR AUTHORITY: The common council, or its duly authorized committee, agent, or representative and shall include the superintendent.

BIOCHEMICAL OXYGEN DEMAND (BOD): The quantity of oxygen utilized in the biochemical oxidation of organic matter in five (5) days at twenty degrees centigrade (20°C), expressed as

milligrams per liter. Quantitative determination of BOD shall be made in accordance with procedures set forth in the most recent edition of "standard methods".

BUILDING DRAIN: That part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the wall of the building and conveys it to the building sewer.

BUILDING SEWER: The extension from the building drain beginning at the immediate outside foundation wall to its connection with the sanitary sewer or other place of disposal. This term is synonymous with sanitary sewer.

COMMERCIAL AND INSTITUTIONAL USER: Those users of the treatment works which are not residential and are not classified as an industrial user.

COMPATIBLE POLLUTANTS: Biochemical oxygen demand, suspended solids, phosphorus, ammonia, or pH, plus additional pollutants identified in the WPDES permit for the publicly owned treatment works receiving the pollutants to a substantial degree.

DEBT SERVICE CHARGE: That charge to the users in the city service area which shall defray the costs of retiring the debts incurred by the city in construction of sewage treatment facilities plus the existing debts on the city sewerage facilities.

DISCHARGER: Any person who discharges septage or wastewater into the sewerage system and shall include any person with whom the utility has entered into a contract or agreement.

DOMESTIC WASTEWATER: Waterborne wastes normally being discharged from the sanitary conveniences of dwellings, apartment houses, hotels, office buildings, commercial buildings, factories and institutions, free of industrial wastes and in which the average concentration of BOD is established at or below two hundred thirty seven milligrams per liter (237 mg/l), the suspended solids is established at or below two hundred fifteen milligrams per liter (215 mg/l), and ammonia is established at or below twenty three milligrams per liter (23 mg/l), and the phosphorus is established at or below seven milligrams per liter (7 mg/l).

FLAT CHARGE: The charge made to unmetered users for use of the sewage treatment facilities. This charge consists of all charges for metered customers equal to fifteen thousand (15,000) gallons of use per quarter.

FLOATABLE OIL: Oil, fat, or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. Wastewater or septage shall be considered free of floatable fat if it is properly pretreated and the wastewater does not interfere with the collection or treatment system.

GARBAGE: The residue from the preparation, cooking, and dispensing of food, and from the handling, storage and sale of food products and produce.

GROUND GARBAGE: The residue from the preparation, cooking, and dispensing of food that has been shredded to such degree that all particles will be no greater than one-half inch (1/2") in any dimension and will be carried freely in suspension under normal flow conditions in sewers.

HOLDING TANK SERVICE AREA: The area outside the sewer service area, but inside or equal to the wastewater treatment facilities planning area where a contract has been developed for holding tank wastewater to be treated at the wastewater treatment facility.

INCOMPATIBLE POLLUTANTS OR WASTEWATER: Wastewater or septage with pollutants of such a strength that will adversely affect or disrupt the wastewater treatment processes or effluent quality if discharged to the sewerage system facility.

INDUSTRIAL USER: As defined for industrial user class means any user of the treatment works that engages in the processing, blending, assembling or in some way transforming of materials or substances into new products, and: a) discharges a wastewater having BOD concentrations in excess of two hundred thirty seven milligrams per liter (237 mg/l) and/or suspended solids concentrations in excess of two hundred fifteen milligrams per liter (215 mg/l) and/or phosphorus in excess of seven milligrams per liter (7 mg/l) and/or flows in excess of twenty five thousand (25,000) gallons per day (GPD); or b) has in its waste a toxic pollutant in toxic amounts as defined in section 307 of the act; or c) is found by the city, state or the U.S. environmental protection agency (EPA) to have significant impact, either singly or in combination with other contributing industries, on the wastewater treatment system, the quality of sludge, the system's effluent quality, or air emissions generated by the system.

INDUSTRIAL WASTE: The wastewater from industrial process, trade, or business, as distinct from sanitary sewage, including cooling water and the discharge from sewage pretreatment facilities.

LICENSED DISPOSER: A person or business holding a valid license to do septage servicing under NR 113.

MANHOLE: An opening constructed to permit access to a sanitary sewer or system.

MAY: Permissible or discretionary.

MINIMUM CHARGE: The amount charged to each user in the city, regardless of use and is comprised of the cost of billing, collecting and accounting, meter reading expense, collection system maintenance, office supplies and expenses, transportation, miscellaneous general expense, administrative and general salaries expenses, and office rent. This charge does not require any minimum use by user.

NATURAL OUTLET: Any outlet, including storm sewers, into a watercourse, pond, ditch, lake or other body of surface water or ground water.

OPERATION AND MAINTENANCE COSTS: The treatment plant operation and maintenance costs plus the operation and maintenance costs of the city sewerage system. These costs shall include labor, energy, chemicals and equipment replacement cost but shall not include debt retirement.

PERMIT: Shall include any contract or agreement with the city or utility concerning discharge of septage and/or wastewater into the sewerage system.

PERSON: Any and all persons, including an individual, firm, company, municipal or private corporation, association, society, institution, enterprise, government agency or other entity.

pH: The logarithm (base 10) of the reciprocal of the hydrogen ion concentration. The concentration is the weight of hydrogen ions in grams per liter of solution. Neutral water, for example, has a pH value of 7 and a hydrogen ion concentration of 10^{-7} . It shall be determined by one of the procedures outlined in "standard methods".

PHOSPHORUS: Phosphorus compounds including organic phosphate, polyphosphate, orthophosphate, or any other form which may be regulated by the WPDES permit. Quantitative determination of phosphorus shall be made in accordance with procedures set forth in "standard methods" or chapter NR 149 of the Wisconsin administrative code.

PLUMBING INSPECTOR: The official of the city designated to enforce laws regulating plumbing within the city.

PRIVATE SEWER SYSTEM: A system comprised of a septic tank and effluent absorption area designed for the purpose of processing sewage (section 145.01(12), Wisconsin statutes).

PUBLIC SEWER: Any sewer provided by or subject to the jurisdiction of the sewer utility of the city.

REPLACEMENT COST: Expenditures for obtaining and installing equipment, accessories or appurtenances which are necessary to maintain the capacity and performance during the service life of the treatment works and city sewerage system. The term "operation and maintenance" includes replacement. The yearly replacement cost "a" shall be calculated as follows:

$$\text{"a"} = \frac{\text{present replacement cost}}{\text{projected service life}}$$

SANITARY SEWER: A sewer that carries liquid and water carried wastes from residences, commercial buildings, industrial plants, and institutions, together with small quantities of ground, storm, and surface waters that are not admitted intentionally. This does not include the sewer system. This is commonly known as a lateral.

SEPTAGE: Wastewater or contents of septic or holding tanks, dosing chambers, seepage beds, seepage pits, seepage trenches, privies or portable restrooms.

SEWER SERVICE CHARGE: A service charge levied on users of the wastewater collection and treatment facilities for payment of use related capital expenses as well as the operation and maintenance costs, including replacement of said facilities.

SEWER SYSTEM: The common sewers which are primarily installed to receive wastewaters directly from sanitary sewers which convey wastewater from individual structures or from private property.

SEWERAGE SYSTEM: All structures, conduits and pipes by which sewage is collected, treated, and disposed of. This system shall include the sewer system. See also definition of Wastewater Facilities.

SHALL: Means mandatory.

SLUG LOAD: Any substance release at a discharge rate and/or concentration which causes interference to wastewater treatment processes or plugging or surcharging of the sewer system.

STANDARD METHODS: The examination and analytical procedures set forth in the most recent edition of "Standard Methods For The Examination Of Water, Sewage, And Industrial Wastes" published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation.

STORM DRAIN OR STORM SEWER: Drain or sewer for conveying surface water, ground water, subsurface water (unpolluted) from any source.

STORMWATER RUNOFF: That portion of the rainfall that is collected and drained into the storm sewers.

SUPERINTENDENT: Superintendent of the utility or his authorized deputy, agent or representative.

SURCHARGE: An additional charge related to industrial wastes being discharged by any user having unusual characteristics such as BOD greater than two hundred thirty seven milligrams per liter (237 mg/l), suspended solids greater than two hundred fifteen milligrams per liter (215 mg/l), phosphorus greater than seven milligrams per liter (7 mg/l), or other pollutants.

SUSPENDED SOLIDS: Solids that either float on the surface of, or are in suspension in, water, wastewater, septage, or other liquids, and that are removable by laboratory filtering as prescribed in "standard methods" and are referred to as nonfilterable residue.

USER: Any person discharging domestic wastewater or industrial wastes into the collection system.

USER CHARGE: That charge to users of the city sewerage system which adequately provides for proportionate recovery of the debt and operation and maintenance costs.

USER CLASS: A group of users having similar wastewater flows and characteristics, levels of BOD, suspended solids, etc., as identified in the WPDES permit.

UTILITY: The Menomonie sewer utility empowered to enforce this chapter. The utility shall be directed and administered by the approving authority. The terms utility and approving authority may be used synonymously.

WPDES PERMIT: The Wisconsin pollutant discharge elimination system permit, issued for the city.

WASTEWATER: A combination of the water carried waste discharged into the collection system from residences, commercial buildings, institutions and industrial establishments, together with such ground surface and storm water as may be present.

WASTEWATER FACILITIES: The complete facilities for collection, storage, treating and disposing of the wastewater and septage. This term is synonymous with wastewater treatment facilities, treatment works, sewage facilities, sewage treatment facilities, sewerage system facilities and sewerage systems. (1975 Code Ch. 5 § I)

8-2-3: GENERAL RULES AND REGULATIONS:

The rules, regulations, and sewer rates of the Menomonie sewer utility set forth in this chapter shall be considered a part of the contract with every person who is connected to or uses the city sewerage system or wastewater treatment facility. They shall be considered as expressing their assent to be bound thereby. Whenever any of said rules and regulations, or such others as the utility may hereafter adopt, are violated, the use or service shall be shut off from the building or place of such violation (even though 2 or more parties are receiving service through the same connection) and shall not be reestablished except by order of the building inspector or superintendent and/or upon payment of all arrears, the expenses and established charges of shutting off and turning on, and upon such other terms as the utility may determine, and a satisfactory understanding with the party that no further cause for complaint shall arise. In case of such violation, the utility may declare any payment made for the service by the party or parties committing such violation to be forfeited. The right is reserved to the utility to change these said rules, regulations, and sewer rates from time to time as it may deem advisable, and make special rates and contracts in all proper cases. (1975 Code Ch. 5 § II)

8-2-4: SPECIFIC RULES AND REGULATIONS:

The rules and regulations set out in sections 8-2-4-1 through 8-2-4-7 of this chapter are hereby set for the governing of licensed plumbers, sewer users and others. (Ord. 2009-10, 11-2-2009)

8-2-4-1: PLUMBERS:

No plumber, pipefitter, or other person will be permitted to do any plumbing or pipefitting work in connection with the sewer system without first receiving a license from the state and obtaining permission from the building inspector. All service connections to the sewer main shall comply with the state plumbing code. (1975 Code Ch. 5 § II)

8-2-4-2: USERS:

A. It shall be unlawful for any person to place, deposit or permit to be deposited any sewage on the ground surface of any public or private property or in any natural outlet within the jurisdiction of the utility.

B. Except as provided for in this section, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage.

C. The owner of all houses, buildings or properties for human occupancy, employment, recreation or other purposes, situated within the jurisdiction of the utility and abutting on any street, alley or right of way in which there is located a sewer system is hereby required at his expense to install suitable sanitary sewer facilities therein and to connect such facilities directly to the sewer system that is available for connection in accordance with the provisions of this chapter within ninety (90) days after date of official notice by the superintendent or his designee to do so. In the event that an owner has in

place a private sewage system at the time that a sewer system becomes available for connection, this requirement need not be complied with until the occurrence of the first of the following to occur:

1. Transfer of the property by deed or land contract; or (1975 Code Ch. 5 § II)
2. In the event that the state of Wisconsin department of commerce or the Dunn County zoning administrator determines that the private sewer system is failing or malfunctioning. (1975 Code Ch. 5 § II; amd. 2009 Code)

D. With respect to subsection C1 of this section, the owner shall notify the superintendent in writing, within ten (10) days of the date of the transfer of ownership of the property as to the transfer, the date of transfer and the name(s) and address(es) of the new owners. The superintendent shall give official notice to the new owner that the new owner shall, within thirty (30) days, install at his expense suitable sanitary sewer facilities therein and to connect such facilities directly with the sewer system in accordance with the provisions of this chapter.

E. With respect to subsection C2 of this section, in the event that it is determined that the private sewage system is failing or malfunctioning, the superintendent shall give official notice to the owner that the owner shall, within thirty (30) days, install at his expense suitable sanitary sewer facilities therein and to connect such facilities directly with the sewer system in accordance with the provisions of this chapter. (1975 Code Ch. 5 § II)

8-2-4-3: PRIVATE SEWAGE DISPOSAL:

Where the sewer system is not available, the building sewer shall be connected to a private sewage system complying with the following provisions: Before commencement of construction of a private sewage system, the owner shall first obtain a written permit signed by the Dunn County zoning administrator or the county authority having jurisdiction. (1975 Code Ch. 5 § II)

8-2-4-4: BUILDING SEWERS AND CONNECTIONS:

A. No unauthorized person shall alter, disturb or uncover any connections with or opening into any sewer system or appurtenance thereof without first obtaining written permission from the plumbing inspector.

B. There shall be two (2) classes of wastewater discharge permits: 1) establishments producing only domestic wastewaters including residences, institutions, public facilities, and commercial establishments; and 2) establishments producing industrial wastewaters. In either case, the owner or his representative shall make application on a special form furnished by the plumbing inspector. The application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the plumbing inspector.

C. All costs and expenses incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the utility from any loss or damage that may directly or indirectly be occasioned by the installation of the sanitary sewer.

D. Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the plumbing inspector, to meet all requirements of this chapter. Abandonments of existing sewer laterals shall be at the main unless approved by the plumbing inspector or his designee. All abandonments shall be sealed with concrete or a specifically designed plug. (1975 Code Ch. 5 § II)

E. The size, slope alignment, and materials of construction of a building sewer and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling the trench shall all conform to the appropriate requirements of COMM 81-84, Wisconsin administrative code.

F. Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the sanitary sewer, sewage carried by such a building drain shall be lifted and discharged to the building

sewer by facilities conforming to COMM 81-84, Wisconsin administrative code. (1975 Code Ch. 5 § II; amd. 2009 Code)

G. No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, basement sump pumps or other sources of surface runoff or ground water to a building sewer or building drain which in turn is connected directly or indirectly to the sewer system.

H. Connection of a building sewer to a sewer system main shall conform to the following:

1. Connection to plastic mains shall be made with appropriate plastic adapters cemented and clamped to the main.

2. Connection to concrete or tile mains shall be made with tapping collars sized to fit the main. Collars shall be securely wired to the main and the entire assembly shall be encased in Portland cement concrete. The cement shall completely surround the main wherever practical.

3. No protrusion of a building sewer into a main is allowed.

4. Tapping of mains shall be performed so that no debris is allowed to enter a main.

5. Building sewer connections to manholes are prohibited, except for connections to integrally cast bases of manholes.

I. The applicant for the building sewer permit shall notify the plumbing inspector when the building sewer is ready for inspection and connection to the sanitary sewer. The connection shall be made under the supervision of the plumbing inspector.

J. All excavations for building sewer installations shall be adequately guarded with barricades and lights so as to minimize the hazard to public welfare and safety. Streets, sidewalks, parkways and other public property disturbed in the course of work shall be restored in conformance with title 7, chapters 1 and 2 of this code.

K. The permit application for septage disposal shall be made between August 1 and September 1 of each year by each licensed disposer wishing to discharge septage to the wastewater facilities. An application will be furnished during the months of July and August at the wastewater treatment plant. The application must state fully and truly the type, frequency, quantity, quality and location of generated septage to be disposed at the wastewater facilities. During the month of September, the utility will evaluate the applications and make a determination as to the amount and conditions of septage disposal to the wastewater treatment facility. The utility shall approve or reject all applications by October of each year. If the treatment facility cannot accept all the proposed septage disposal, consideration shall be given first to those generators of septage that lie within the service district.

All approvals for septage disposal shall be granted subject to the condition that, any time the wastewater facilities has operational problems, maintenance problems, or threat of WPDES permit violation that are indirectly or directly related to septage disposal, the utility may immediately restrict septage disposal until such time as corrective action or mitigative measures have been taken.

Septage shall only be discharged to the sewer system by city approved and state licensed disposers and at locations, times, and conditions as specified by the superintendent. Septage discharges to city specified manholes may, under special circumstances, be allowed, provided discharge rates are restricted as necessary to facilitate mixing, prevent a backup in the receiving sewer and prevent a slug load to the wastewater facility. Discharges may be limited to the normal working hours of the treatment plant personnel and require a written documentation of the discharge to be submitted to the superintendent within one working day of the discharge to the sewers or wastewater facility.

L. The utility reserves the right to require any user of the system with flows in excess of five thousand (5,000) gallons per day (GPD) to install and maintain, at the user's expense, a control or

monitoring manhole on the user's discharge pipeline. The user shall provide the city free and unobstructed access to the installed manhole.

M. The utility reserves the right to require any industrial user with flows in excess of twenty five thousand (25,000) GPD and/or of strengths in excess of that of domestic wastewater, to install and maintain at the user's expense a monitoring facility. This monitoring facility will be capable of continuous flow measurement and composite sampling for all discharges and accessible to utility personnel at all times. The utility may inspect the monitoring facilities of any discharger to determine compliance with the requirements of this chapter. The discharger shall allow the utility to enter upon the premises of the discharger at all reasonable hours, for the purpose of inspection, sampling, or records examination. The utility shall have the right to set up on the discharger's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

N. No claim may be made against the city, the utility or their representatives by reason of the breaking, clogging, stoppage, or freezing of any service pipes, nor from any damage arising from repairing mains, making connections or extensions or any other work that may be deemed necessary. The right is hereby reserved to cut off the service at any time for the purpose of repairs or any other necessary purpose, any permit granted or regulations to the contrary notwithstanding. Whenever it shall become necessary to shut off the sewer within any district of the city, the utility shall, if practicable, give notice to each and every consumer within the affected area of the time when such service will be shut off. (1975 Code Ch. 5 § II)

8-2-4-5: GENERAL DISCHARGE PROHIBITIONS:

A. No person shall discharge or cause to be discharged any stormwater, surface water, ground water, roof runoff, subsurface drainage or any other unaltered water (unpolluted) to any sanitary sewer.

B. The utility reserves the right to refuse or accept any or all industrial wastewaters from an industry or combination of industries as may be necessary to ensure adequate treatment and proper operation of the sewerage system.

C. No discharger shall contribute or cause to be discharged, directly or indirectly, any of the following described substances into the wastewater disposal system or otherwise to the facilities of the utility:

1. Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction to cause fire or explosion or be injurious in any other way to the operation of the city wastewater facilities or wastewater treatment works.

2. Water or wastes containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any waste treatment process, constitute a hazard to humans or animals, or create a public nuisance in the receiving waters or the wastewater treatment plant. The toxics prohibited are those consistent with section 307(A) of the clean water act of 1977.

3. Water or wastes having a pH lower than 6.0 or higher than 9.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewerage system.

4. Fluids or solid substances in quantities or of such size as to cause obstruction to the flow in sanitary sewers, or other interference with the proper operation of the sewage treatment plant such as, but not limited to, ashes, cinders, clay, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails, paper dishes, cups, milk containers, either whole or ground by garbage grinders. (1975 Code Ch. 5 § II)

8-2-4-6: LIMITED AND RESTRICTED DISCHARGES:

A. Certain Materials Restricted Or Prohibited: The following described substances, materials, waters or wastes shall be limited in discharges to the sewerage system to concentrations or quantities

which will not harm the sewers, lift stations or the wastewater treatment facility, will not have an adverse effect on the receiving stream, or will not otherwise endanger life, limb or public property, or constitute a nuisance. The approving authority may set limitations lower than the limitations established in the regulations below, if such limitations are necessary to meet the above objectives. In forming an opinion as to such limitations, the approving authority will give consideration to such factors as the quantity of subject waste in relation to flows and velocities in the sewers, materials in construction of the sewers, the wastewater treatment process employed, capacity of the wastewater treatment plant, and other pertinent factors. The limitations or restrictions on materials or characteristics of waste or wastewaters discharged to the sewerage system, which shall not be violated without approval of the superintendent, are as follows. None of the following material may be discharged to the sewerage system:

1. Wastewater having a temperature higher than one hundred fifty degrees Fahrenheit (150°F).
2. Any liquid containing fats, wax, grease, or oils, whether emulsified or not, in excess of one hundred milligrams per liter (100 mg/l) or containing substances which may solidify or become viscous at temperatures between thirty two degrees Fahrenheit (32°F) and one hundred fifty degrees Fahrenheit (150°F).
3. Wastewater containing more than twenty five milligrams per liter (25 mg/l) of petroleum oil, nonbiodegradable cutting oils, or products of mineral oil origin.
4. Garbage that has not been properly shredded. Garbage grinders may be connected to sanitary sewers from homes, hotels, institutions, restaurants, hospitals, catering establishments or similar places where garbage originates from the preparation of food in kitchens for the purpose of consumption on the premises, or when served by caterers.
5. Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction to injure or interfere with any wastewater treatment process, that constitutes a hazard to humans or animals, or that exceeds the limitation set forth in state or federal categorical pretreatment standards. A toxic pollutant shall include, but not be limited to, any pollutant identified in the toxic pollutant list set forth in NR 215 of the Wisconsin administrative code. Unless more restrictive limits are established by a state or federal regulatory agency having jurisdiction, the following concentrations, in micrograms per liter, shall not be exceeded on a grab sample basis:

Toxic Pollutant	Micrograms Per Liter
------------------------	-----------------------------

Toxic Pollutant	Micrograms Per Liter
------------------------	-----------------------------

Arsenic	40
Cadmium	22
Chromium	500
Copper	60
Cyanide	50
Lead	100
Mercury	1
Molybdenum	25
Nickel	100
Selenium	10
Silver	10
Zinc	1,000

6. Water or wastes containing odor producing substances exceeding limits which may be established by the approving authority in compliance with state regulations.

7. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by state or federal regulations.

8. Quantities of flow, concentrations, or both, which constitute a slug load.

9. Water or wastes containing substances which are not amenable to treatment or reduction by the wastewater treatment processes employed, or as amenable to treatment only to such degree that the wastewater treatment plant effluent cannot meet the requirements of the WPDES permit.

10. Water or wastes which, by interaction with other water or wastes in the city sewerage system, release obnoxious gases, form suspended solids which interfere with the collection system, or create a condition deleterious to structures and treatment processes.

11. Materials which exert or cause:

a. Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the wastewater treatment plant.

b. Unusual concentrations of inert suspended solids, such as fuller's earth, lime slurries and lime residues, or of dissolved solids, such as sodium sulfate.

c. Excessive discoloration, such as dye wastes and vegetable tanning solutions.

B. Septage Disposal: No person shall dispose of septage in any storage area or sewer manhole located within the sewer district without written approval of the superintendent.

C. Notification Rules: Each person who discharges septage or wastewater into the sewerage system shall provide protection from accidental discharge of prohibited or regulated materials or substances established by or pursuant to this chapter. Signs shall be permanently posted in conspicuous places on discharger's premises, advising employees whom to call in the event of a slug or accidental discharge. Employers shall instruct all employees who may cause or discover such a discharge with respect to emergency notification procedure.

D. Pretreatment Required: When in the opinion of the superintendent, and in accordance with title 40 part 128 of the code of federal regulations, and other applicable state and federal regulations, pretreatment is required to modify or eliminate wastes that are harmful to the structures, processes or operation of the wastewater treatment facility, the person creating the waste shall provide, at his expense, such preliminary treatment or processing facilities as may be determined required to render his wastes acceptable for admission to the sewerage system.

E. Interceptor Requirements: Grease, oil and sand interceptors shall be provided when, in the opinion of the superintendent, they are necessary for the proper handling of such wastes, except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by state plumbing code, and shall be located so as to be readily and easily accessible for cleaning and inspection. In the maintaining of these interceptors, the owner shall be responsible for the proper removal and disposal, by appropriate means, of the captured material, and shall maintain records of the dates and means of disposal, which are subject to review by the superintendent. Any removal and handling of the collected materials not performed by the owner's personnel must be performed by currently licensed waste disposal firms.

F. Special Agreements: No provision contained in this chapter shall be construed as prohibiting any special agreement between the utility and any person, whereby an industrial waste of unusual strength or character may be admitted to the sewerage system, either before or after pretreatment, provided that there is no impairment of the functioning of the wastewater treatment facilities by reason of the

admission of such wastes or impair the quality of the sludge in reuse or disposal, and no extra costs are incurred by the utility without recompense from the person.

G. Discharge Permit: An industrial wastewater discharge permit is required under subsection 8-2-4-4B of this chapter. For any discharge by an industrial user, this permit must be obtained one hundred eighty (180) days prior to the beginning of discharge. In support of his application, the user shall submit the following information:

1. Name, address and standard industrial classification number of applicant.
2. Average volume of wastewater to be discharged.
3. Wastewater constituents and characteristics as determined by examination according to "standard methods".
4. Time and duration of discharge.
5. Average and peak wastewater flow rates, including daily, monthly and seasonal variations, if any.
6. Site plans, floor plans, mechanical and plumbing plans and details to show all sewers and appurtenances by size, location and elevation.
7. Description of activities, facilities and plant processes on the premises including all materials and types of materials which are, or could be, discharged.
8. Each product produced by type, amount and rate of production.
9. Number and type of employees and hours of work.
10. Any other information as may be deemed by the approving authority to be necessary to evaluate the permit application.

H. Consequences Of Improper Discharge: If any waters, wastes or septage are discharged, or proposed to be discharged, to the public sewers or at the wastewater treatment facility, which waters, wastes, or septage contain substances or possess the characteristics enumerated in section 8-2-4-5 of this chapter and subsection A of this section and which, in the judgment of the utility, may have deleterious effects upon the wastewater treatment facility, processes, equipment, or receiving waters, or which otherwise create a hazard to life, health, or constitute a public nuisance, the utility may:

1. Reject the wastes.
2. Require pretreatment to an acceptable condition for discharge to the public sewers.
3. Require a control over the quantities and rates discharged.
4. Require payment to cover the added cost of handling and treating the wastes not covered by existing taxes or sewer charges under the provisions of section 8-2-5 of this chapter.

I. Inspection Requirements: Industrial wastes and septage discharged into the sewerage system shall be subject to periodic inspection and a determination of character and concentration of said wastes. The determinations shall be made by the industry or the licensed disposer as often as may be deemed necessary by the utility. Testing facilities shall be the responsibility of the person discharging the waste or septage and shall be subject to the approval of the utility. Access to sampling locations shall be granted to the utility at all times. Every care shall be exercised in the collection of samples to ensure their preservation in a state comparable to that at the time the sample was taken. The utility may use a consulting engineer or attorney to evaluate the data furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the approving authority may issue a wastewater discharge permit subject to appropriate terms and conditions. (1975 Code Ch. 5 § II)

8-2-4-7: AMALGAM MANAGEMENT OF DENTAL OFFICES:

- A. This section applies to any dental office that places or removes amalgam. If work in a dental office is limited to work that does not involve placing or removing amalgam, such as orthodontics, periodontics, oral and maxillofacial surgery, endodontics, or prosthodontics, then this section does not apply.
- B. All dental offices shall implement best management practices for amalgam as established by the Wisconsin Dental Association.
- C. Within the shortest reasonable time, but not later than July 1, 2010, every vacuum system where amalgam is placed or removed shall include an amalgam separator that meets the criteria of the International Standards Organization (ISO 11143). Dental offices shall install, operate, and maintain the amalgam separator according to instructions provided by the manufacturer. The amalgam separator shall have a design and capacity appropriate for the size and type of vacuum system.
- D. On or before July 1, 2010, each dental office shall submit a report to the city that certifies the implementation of the management practices required by subsection B of this section and identifies the contractors used to remove amalgam waste within the last twelve (12) months.
- E. On or before February 1, 2010, each dental office shall provide to the city a schedule for the installation of the amalgam separator required by subsection C of this section.
- F. On or before March 1, 2010, each dental office shall provide to the city a report providing the following information:
1. If installation of the amalgam separator is complete, then the report shall identify the installation date, the manufacturer, and the model name.
 2. If installation of the amalgam separator is incomplete, then the report shall briefly explain the delay, provide an installation schedule, and identify the manufacturer and the model name of the amalgam separator that will be installed.
- G. If a dental office has provided a report according to subsection F2 of this section, then the dental office shall notify the city of the completion of installation within five (5) days after completion.
- H. The city shall provide forms for reporting the information required by subsections D, E, F and G of this section.
- I. From the contractors used to remove amalgam waste, dental offices shall obtain records for each shipment showing: the volume or mass of amalgam waste shipped; the name and address of the destination; and the name and address of the contractor. Dental offices shall maintain these records for a minimum of five (5) years. Dental offices shall make these records available to the city for inspection and copying upon request from the city.
- J. Dental offices shall allow the city to inspect the vacuum system, amalgam separator, and amalgam waste storage areas.
- K. Inspections shall occur during the normal operating schedule of the dental office. The city shall inspect dental offices according to appointments made in advance, as long as this advanced notice does not impede enforcement of this section.
- L. If a dental office is implementing the management practices required by subsection B of this section and is operating and maintaining the amalgam separator required by subsection C of this section, then any numerical discharge limit for mercury established in any other section of this chapter does not apply. (Ord. 2009-10, 11-2-2009)

8-2-5: SEWER USER CHARGE SYSTEM:

A. Authority: The common council shall have the authority to establish and collect a sewer service charge for the use of the utility's sewerage system.

B. Classes Of Users:

1. The following user classes are established:

- a. Residential.
- b. Commercial and institutional.
- c. Industrial.

2. All users will pay at the residential rate, plus the appropriate surcharges.

C. Method Of Computing: The sewer utility shall determine the yearly cost of operation and maintenance of the wastewater treatment facility, the total flow-BOD-suspended solids- phosphorus treated by the facility and resulting flow-BOD- suspended solids-phosphorus unit rates. To these expenses, the utility shall add their expenses to debt, operation, maintenance, and equipment replacement of the sewerage system and the cost of billing and collecting, and then determine total sewer service charge for each user of the system. The service charge shall be based on water or wastewater meter readings, when available. When such meter readings are unavailable, the service charges will be a flat charge based on the estimate of usage for the unmetered users. This estimate shall be fifteen thousand (15,000) gallons per quarter. Where the flat charge must be used, it will be paid for the full quarter and shall not be prorated. If service should be interrupted for any full quarter, only the minimum charge will be charged. The flat charge will be adopted by resolution of the common council.

D. Debt Service Charge: All charges for debts on the existing sewerage system and the debts incurred by the utility for construction of the sewerage system shall be paid for by a debt service charge which is a part of the total sewer service charge. The amount of this surcharge will be reviewed annually and adopted by resolution of the common council.

E. Minimum Charge: The minimum charge per user shall be comprised of the cost of billing, collecting and accounting, meter reading expense, collection system maintenance, administrative and general salaries, transportation, office supplies and expenses, miscellaneous general expense, and office rent, to be paid for each connection for the availability of service. This charge will be made regardless of use of user and shall be adopted by resolution of the common council.

F. User Charge: The user charge for the residential user class for discharging domestic wastewater shall be based on a minimum annual charge per user and on the volume used by each user. The amount of this charge will be reviewed annually and adopted by resolution or action of the common council.

G. Replacement Fund: A distinct replacement fund shall be established by the utility. The replacement fund is for replacing existing equipment and accessories necessary to maintain the capacity and performance during the service life of the treatment facility, future wastewater treatment facility modifications required by changes in the WPDES permit, and replacing structures and equipment beyond their useful service life.

H. Surcharges:

1. The commercial and institutional class of users shall be charged at the residential user rate and such additional surcharges as established by resolution of the common council.

2. The industrial user class of users shall be charged at the residential user rate, plus a surcharge, as established by resolution of the common council.

3. Users discharging toxic pollutants shall pay for any increased operation, maintenance and replacement costs.

4. Septage dischargers will be charged at the residential user rate, plus any applicable surcharges for BOD concentrations in excess of two hundred thirty seven milligrams per liter (237 mg/l), suspended solids concentrations in excess of two hundred fifteen milligrams per liter (215 mg/l), and phosphorus concentrations in excess of seven milligrams per liter (7 mg/l). State average concentrations may be used in lieu of testing for fee determination.

I. Total Sewer Service Charge: The total sewer service charge shall be the sum of the minimum charge, user charge, debt service charge and any applicable surcharges.

J. Methods Of Metering Sewerage:

1. Water meter readings shall be used to determine the actual volume of water used. Sewage volume for computing the service charge for residential accounts shall be considered to be one hundred percent (100%) of the metered water consumption during the fourth and first billing quarters, and the average of one hundred percent (100%) of the metered water consumption of the preceding two (2) quarters for the second and third billing quarters. In no case shall the volume for computing the charge exceed one hundred percent (100%) of the actual metered water consumption. If, because of interruption of occupancy or other reason, there is substantial inaccuracy in the imputed volume for second and third billing quarters, the utility may use one hundred percent (100%) of actual metered water consumption as the basis for service charge.

2. Sewage volume for computing the service charge for commercial, industrial and public authority customers shall be considered to be one hundred percent (100%) of the metered water consumption during the billing quarter. Upon presentation of evidence that a substantial amount of the metered water consumption is not discharged into the sanitary sewer, the utility may adjust the imputed volume for computing service charge.

3. Customers operating their own water supply system but discharging to the sewerage system shall, at their own expense, provide and install a meter which is accessible during working hours by city personnel. All costs of providing, installing and maintaining said metering system shall be borne by the customer, and the system shall be maintained to the utility's standards.

4. Where it is not possible to compute an accurate sewer bill due to one of the following reasons, the charge will be computed as follows:

a. Meter failure: Charge same as previous quarter.

b. No meter: Charge fifteen thousand (15,000) gallons per quarter.

c. New customer at old service: Charge one hundred thirty five (135) gallons per day times the number of days of occupancy, or the actual reading if read within five (5) days of initial occupancy.

K. Billing Periods: The bill will be payable in accordance with the schedule established by the utility. These bills are payable in four (4) quarterly payments each year.

L. Due Date: All portions of the service charges shall be payable at the time the bill for the same is issued.

M. Late Penalties: Charges levied in accordance with this chapter shall be a debt due to the utility and shall be a lien upon the property. If this debt is not paid within twenty (20) days after it is due and payable, it shall be deemed delinquent, and a penalty equal to the rate established by the Wisconsin public service commission shall be added to the bill. This debt may then be recovered by civil action in the name of the city against the property owner, the person, or both. If payment is not received prior to November 15, the delinquent bill will be forwarded to the county for placement on the succeeding tax roll.

N. Failure To Pay:

1. In the event of failure to pay sewer service charges after they become delinquent, the utility shall have the right to remove or close sewer connections and enter upon the property for accomplishing such purposes.

2. The expense of such removal or closing, as well as the expense of restoring service, shall likewise be a debt to the city and a lien upon the property, and may be recovered by civil action in the name of the city against the property owner, the person, or both.

3. Sewer service shall not be restored until all charges, including the expense of removal, closing and restoration, shall have been paid.

4. Change of ownership or occupancy of premises found delinquent shall not be cause for reducing or eliminating these penalties.

O. Audit Of General Account:

1. The utility shall conduct an annual audit, the purpose of which shall be to maintain the proportionality and adequacy of the sewer service charge relative to changing system operation, maintenance and debt service costs. Any excess revenues collected from a user class shall be attributed to that class when determining the next year's charge system.

2. Users will be notified annually of the charges attributable to wastewater treatment services. (1975 Code Ch. 5 § III)

8-2-6: ENFORCEMENT; PERMIT SUSPENSION OR REVOCATION; HEARING:

A. Emergency Suspension Of Service And Discharge Permits: The superintendent may, for good cause shown, suspend the wastewater treatment service of a discharger when it appears to the superintendent that an actual or threatened discharge presents or threatens an imminent or substantial danger to the environment, interference with the operation of the wastewater facilities, or violation of any pretreatment limits imposed by this chapter, contract or agreement. Any discharger notified of the suspension of the utility's wastewater treatment service shall within a reasonable period of time, as determined by the superintendent, cease all discharges. In the event of failure of the discharger to comply voluntarily with the suspension order within the specified time, the utility may commence judicial proceedings immediately thereafter to compel the discharger's compliance with such order. The utility shall reinstate the wastewater treatment service and terminate judicial proceedings pending proof by the discharger of the elimination of the noncomplying discharge or conditions creating the threat of imminent or substantial danger as set forth above.

B. Revocation Of Permit: The utility may revoke the permit of any discharger which fails to: 1) factually report the wastewater constituents and characteristics of its discharge; 2) report significant changes in wastewater constituents or characteristics; 3) allow reasonable access to the discharger's premises by representatives of the utility for the purpose of inspection or monitoring; or 4) uphold the condition of its permit, or this chapter, or any final judicial order entered with respect thereto.

C. Notification Of Violation; Administrative Adjustment: Whenever the utility finds that any discharger has engaged in conduct which justifies revocation of a permit, the utility shall serve or cause to serve or cause to be served upon such discharger a written notice either personally or by certified or registered mail, return receipt requested, stating the nature of the alleged violation. Within thirty (30) days of the date of receipt of the notice, the discharger shall respond personally or in writing to the utility advising of its position with respect to the allegations. Thereafter, the parties shall meet to ascertain the veracity of the allegations and, where necessary, establish a plan for the satisfactory correction thereof.

D. Show Cause Hearing: Where violation of sections 8-2-3 and 8-2-4 through 8-2-4-6 of this chapter is not corrected by timely compliance by means of administrative adjustment, the utility may order any discharger which causes or allows conduct prohibited by said sections 8-2-3 and 8-2-4

through 8-2-4-6 of this chapter to show cause before the utility why the proposed permit revocation action should not be taken. A written notice shall be served on the discharger by personal service or by certified or registered mail, return receipt requested, specifying the time and place of a hearing to be held by the utility or its designee regarding the violation, the reasons why the enforcement action is to be taken, the proposed enforcement action, and directing the discharger to show cause before the utility or its designee why the proposed enforcement action should not be taken. The notice of the hearing shall be served no less than ten (10) days before the hearing. Service may be made on any agent, officer, or authorized representative of a discharger. The proceedings at the hearing shall be considered by the utility which shall then enter appropriate orders with respect to the alleged improper activities of the discharger. Appeal of such orders may be taken by the discharger in accordance with applicable local or state law.

E. Judicial Proceedings: Following the entry of any order by the utility with respect to the conduct of a discharger contrary to the provisions of this chapter, the attorney for the utility may, following the authorization of such action by the utility, commence an action for appropriate legal and/or equitable relief in the appropriate court.

F. Annual Publication: A list of all significant dischargers which were the subject of enforcement proceedings pursuant to this chapter during the twelve (12) previous months, shall be annually published by the utility in the official city newspaper, summarizing the enforcement actions taken against the dischargers during the same twelve (12) months whose violations remained uncorrected forty five (45) or more days after notification of noncompliance, or which have exhibited a pattern of noncompliance over the twelve (12) month period, or which involve failure to accurately report noncompliance.

G. Right Of Appeal: Any discharger or any interested party shall have the right to request in writing an interpretation or ruling by the utility on any matter covered by this chapter and shall be entitled to a prompt written reply. In the event that such inquiry is by a discharger and deals with matters of performance or compliance with this chapter or permit for which enforcement activity relating to an alleged violation is the subject, receipt of a discharger's request shall stay all enforcement proceedings pending receipt of the aforesaid written reply. Appeal of any final judicial order entered pursuant to this chapter may be taken in accordance with local and state law.

H. Operation Upsets: Any discharger which experiences an upset in operations which places the discharger in a temporary state of noncompliance with this chapter shall inform the superintendent thereof within twenty four (24) hours of first awareness of the commencement of the upset. Where such information is given orally, a written follow-up report thereof shall be filed by the discharger with the superintendent within five (5) days. The report shall specify:

1. A description of the upset, the cause thereof and the upset's impact on a discharger's compliance status, and
2. The duration of noncompliance and, if the noncompliance continues, the time by which compliance is reasonably expected to occur, and
3. All steps taken or to be taken to reduce, eliminate and prevent recurrence of such an upset or other conditions of noncompliance. (1975 Code Ch. 5 § IV)

8-2-7: PENALTIES:

A. Civil Penalties: Any person who is found to have violated an order of the utility or who has failed to comply with any provision of this chapter or the regulations or rules of the utility or orders of any court of competent jurisdiction or permits issued hereunder, may be subjected to the imposition of a civil forfeiture of not more than five hundred dollars (\$500.00). Each day in which any violation is continued beyond the notice time limit shall be deemed a separate offense.

B. Falsifying Information Or Tampering: Any person who knowingly makes any false statement, representation or certification in any application, record, permit, report, plan or other document filed or

required to be maintained pursuant to this chapter or a permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall, upon conviction, be punished by the imposition of a civil forfeiture of not more than five hundred dollars (\$500.00).

C. **Recovery Of Costs Incurred By Utility:** In addition to any other penalties imposed pursuant to this chapter, any person: 1) violating any of the provisions of this chapter or its permit; or 2) who discharges or causes a discharge producing a deposit or obstruction; or 3) who causes damage to or impairs the utility sewerage system, shall be liable to the utility for any expense, loss, or damage caused by the violation or discharge including cleaning, repair, replacement, and any forfeitures or penalties imposed on the utility by the state or federal government. Refusal to pay the assessed costs shall constitute a violation of this chapter. (1975 Code Ch. 5 § V)

8-2-8: EFFECT OF ADOPTION:

When adopted by the common council of the city, this chapter shall take precedence over any preexisting agreements, ordinance and charge systems which are inconsistent with this chapter and/or the federal law PL92-500 and subsequent amendments thereto. (1975 Code Ch. 5 § VI)

8-2-9: SEVERABILITY:

If any provision, paragraph, word, section, or subsection of this chapter is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections, and subsections shall not be affected and shall continue in full force and effect. (1975 Code Ch. 5 § VII)

Facility Specific Mercury Variance Data Sheet

Directions: Please complete this form electronically. Record information in the space provided. Select checkboxes by double clicking on them. Do not delete or alter any fields. For citations, include page number and section if applicable. Please ensure that all data requested are included and as complete as possible. Attach additional sheets if needed.

Section I: General Information

A. Name of Permittee: City of Menomonie

B. Facility Name: Menomonie Wastewater Treatment Facility

C. Submitted by: Wisconsin Department of Natural Resources

D. State: Wisconsin **Substance:** Mercury **Date completed:** 7/13/2026

E. Permit #: 0024708-11-0 **WQSTS #:** (EPA USE ONLY)

F. Duration of Variance **Start Date:** January 1, 2027 **End Date:** December 31, 2031

G. Date of Variance Application: January 31, 2025

H. Is this permit a: ☐ First time submittal for variance
☒ Renewal of a previous submittal for variance (Complete Section X)

I. Description of proposed variance:

The City of Menomonie seeks a variance to the water quality standards for mercury for its WWTF. The proposed variance for mercury, from the chronic water quality-based effluent limit of 1.3 ng/L to an alternative mercury effluent limit (AMEL) of 2.6 ng/L, is expressed as a daily maximum. The permittee has submitted an application for an alternative mercury effluent limitation (AMEL). The application included a pollutant minimization program (PMP) plan for mercury as required under s. NR 106.145(8), Wis. Admin. Code. This is a request for a renewal of a variance EPA approved for the current permit term that had an AMEL of 3.6 ng/L. The Department concludes that the AMEL reflects the greatest pollutant reduction achievable by the permittee with the pollutant control technologies currently applied in the permittee's WWTF. The term of the proposed variance is five years, concurrent with the term of the proposed WPDES permit. The underlying designated uses and criteria of Wisconsin's mercury water quality standards (WQS) will be retained, and all other applicable WQS will remain in effect with adoption of the proposed variance.

Citation: An alternative mercury effluent limitation under s. NR 106.145, Wis. Adm. Code represents a variance to water quality standards authorized by s. 283.15, Wis. Stats.

J. List of all who assisted in the compilation of data for this form

Name	Email	Phone	Contribution
BetsyJo Howe	Betsyjo.howe@wisconsin.gov	608-419-4155	Permit Drafter/Variance Coordinator
Adebawale C. Adesanwo	adebowale.adesanwo@wisconsin.gov	715-492-4047	Compliance Staff
Benjamin Hartenbower	benjamin.hartenbower@wisconsin.gov	715-225-4705	Limit Calculator

Section II: Criteria and Variance Information

A. Water Quality Standard from which variance is sought: 1.3 ng/L Wildlife Criterion

B. List other criteria likely to be affected by variance: 1.5 ng/L Human Threshold Criterion

C. Source of Substance: Dental facilities, medical facilities, academic, and industrial sectors.

D. Ambient Substance Concentration: 4.376 ng/L ☒ Measured ☐ Estimated
☐ Default ☐ Unknown

E. If measured or estimated, what was the basis? Include citation.

Data from the Chippewa River at Durand. (EGAD Number 3400-2020-13) Calculating Water Quality-Based Effluent Limitations for Surface Water Discharges, August 10, 2020, -Surface Water Metals Data – Total Recoverable and Dissolved on Page 105.

F. Average effluent discharge rate: 1.61 MGD **Maximum effluent discharge rate:** 2.167 MGD
(October 2020 – January 2026) (max flow on 4/22/23)

G. Effluent Substance Concentration: 1-day P99 2.61 ng/L ☒ Measured ☐ Estimated
4-day P99 1.87 ng/L ☐ Default ☐ Unknown

30-day P99 1.47 ng/L
H. If measured or estimated, what was the basis? Include Citation. The upper 99th percentile of 1-day, 4-day, and 30-day average discharge concentrations are based on 21 results from October 2020 through January 2026, using the procedures specified in s. NR 106.05(5)(a), Wis. Adm. Code.
I. Type of HAC: ☐ Type 1: HAC reflects waterbody/receiving water conditions ☐ Type 2: HAC reflects achievable effluent conditions ☒ Type 3: HAC reflects current effluent conditions
J. Statement of HAC: The Department has determined the highest attainable condition of the receiving water is achieved through the application of the variance limit in the permit, combined with a permit requirement that the permittee implement its Mercury PMP. Thus, the HAC at commencement of this variance is 2.6 ng/L, which reflects the greatest mercury reduction achievable with the current treatment processes, in conjunction with the implementation of the permittee's Mercury PMP. The current effluent condition is reflective of on-site optimization measures that have already occurred. This HAC determination is based on the economic feasibility of available compliance options for the City of Menomonie at this time (see Economic Section below). The permittee may seek to renew this variance in the subsequent reissuance of this permit; the Department will reevaluate the HAC in its review of such a request. A subsequent HAC cannot be defined as less stringent than this HAC.
K. Variance Limit : 2.6 ng/L as a daily maximum
L. Level currently achievable (LCA): 2.6 ng/L– The value represents the 1-day P ₉₉ of available effluent mercury concentration data.
M. What data were used to calculate the LCA, and how was the LCA derived? (<i>Immediate compliance with LCA is required.</i>) The LCA is the 1-day P99 calculated using the methods described in s. NR 106.05(5), Wis. Adm. Code, and based on effluent mercury data (October 2020 – January 2026). Citation: s. NR 106.145(5), Wis. Adm. Code.
N. Explain the basis used to determine the variance limit (which must be ≤ LCA). Include citation. The variance limit = 1-day P99 of 2.6 ng/L. The limit is established in accordance with s. NR 106.145(5), Wis. Adm. Code.
O. Select all factors applicable as the basis for the variance provided under 40 CFR 131.10(g). Summarize justification below: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☒ 6 Section NR 106.145(1), Wis. Adm. Code, outlines several findings that justify variances for mercury. The Department intended that this provision be generally applicable to all dischargers of mercury, which produce large volumes of effluent with already extremely low mercury concentrations. The Department considers treating to produce effluent at concentrations to meet the limit to be technically and economically infeasible. Citation: Assessing the Economic Impacts of the Proposed Ohio EPA Water Rules on the Ohio Economy, April 24, 1997, Ohio Environmental Protection Agency, Division of Surface Water and Foster Wheeler Environmental Corporation and DRI/McGraw-Hill in support of Amended and New Rules in OAC Chapters 3745-1, -2, and -33.
Section III: Location Information
A. Counties in which water quality is potentially impacted: <u>Dunn, Pepin and Buffalo Counties</u>
B. Receiving waterbody at discharge point: <u>Red Cedar River</u>
C. Flows into which stream/river? <u>Chippewa River</u> How many miles downstream? <u>~15 mi.</u>
D. Coordinates of discharge point (UTM or Lat/Long): <u>SE1/4, SE1/4, Section 27, T28N, R13W</u>
E. What are the designated uses associated with this waterbody? <u>Warm water sport fish community, non-public water supply, recreational use</u>
F. What is the distance from the point of discharge to the point downstream where the concentration of the substance falls to less than or equal to the chronic criterion of the substance for aquatic life protection?

Ambient mercury concentrations in surface water resulting from the variance will be substantially less than levels that result in direct toxicity to aquatic organisms. EPA's current chronic aquatic life criterion for mercury is 0.9081 µg/L, which is approximately three orders of magnitude greater than the wildlife criteria (0.0013 µg/L). Wisconsin's criteria are 0.44 µg/L and 0.83 µg/L for chronic and acute toxicity, respectively. Therefore, instream concentrations are assumed to be well below the chronic criterion immediately at the point of effluent discharge.															
G. Provide the equation used to calculate that distance See above.															
H. Identify all other variance permittees for the same substance which discharge to the same stream, river, or waterbody in a location where the effects of the combined variances would have an additive effect on the waterbody: There are no other permitted discharges within the Wilson Creek Watershed with variances to water quality standards for mercury.															
Please attach a map, photographs, or a simple schematic showing the location of the discharge point as well as all variances for the substance currently draining to this waterbody on a separate sheet See the "Menomonie – Variance Outfall(s)" map.															
I. Is the receiving waterbody on the CWA 303(d) list? If yes, please list ☒ Yes ☐ No ☐ Unknown the impairments below. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">River Mile</th> <th style="width: 33%;">Pollutant</th> <th style="width: 33%;">Impairment</th> </tr> </thead> <tbody> <tr> <td>0-16.48</td> <td>PCBs</td> <td>PCBs Contaminated Fish Tissue</td> </tr> <tr> <td>0-9.27, 13.56-16.48, 28.72-73.6</td> <td>Total Phosphorus</td> <td>Unknown</td> </tr> <tr> <td>9.27-13.56, 16.48-18.8, 22.51-28.72</td> <td>Total Phosphorus</td> <td>Elevated pH, Eutrophication</td> </tr> <tr> <td>73.6-78.51</td> <td>Total Phosphorus</td> <td>Low DO</td> </tr> </tbody> </table>	River Mile	Pollutant	Impairment	0-16.48	PCBs	PCBs Contaminated Fish Tissue	0-9.27, 13.56-16.48, 28.72-73.6	Total Phosphorus	Unknown	9.27-13.56, 16.48-18.8, 22.51-28.72	Total Phosphorus	Elevated pH, Eutrophication	73.6-78.51	Total Phosphorus	Low DO
River Mile	Pollutant	Impairment													
0-16.48	PCBs	PCBs Contaminated Fish Tissue													
0-9.27, 13.56-16.48, 28.72-73.6	Total Phosphorus	Unknown													
9.27-13.56, 16.48-18.8, 22.51-28.72	Total Phosphorus	Elevated pH, Eutrophication													
73.6-78.51	Total Phosphorus	Low DO													
Section IV: Pretreatment (complete this section only for POTWs with DNR-Approved Pretreatment Programs. See w:\Variances\Templates and Guidance\Pretreatment Programs.docx)															
A. Are there any industrial users contributing mercury to the POTW? If so, please list. N/A															
B. Are all industrial users in compliance with local pretreatment limits for mercury? If not, please include a list of industrial users that are not complying with local limits and include any relevant correspondence between the POTW and the industry (NOVs, industrial SRM updates and timeframe, etc) N/A															
C. When were local pretreatment limits for mercury last calculated? N/A															
D. Please provide information on specific SRM activities that will be implemented during the permit term to reduce the industry's discharge of the variance pollutant to the POTW N/A															
Section V: Public Notice															
A. Has a public notice been given for this proposed variance? ☒ Yes ☐ No															
B. If yes, was a public hearing held as well? ☒ Yes ☐ No ☐ N/A															
C. What type of notice was given? ☒ Notice of variance included in notice for permit ☐ Separate notice of variance															
D. Date of public notice: July 22, 2026 Date of hearing: September 9, 2026															
E. Were comments received from the public in regards to this notice or hearing? <i>(If yes, please attach on a separate sheet)</i> ☐ Yes ☐ No															
Section VI: Human Health															
A. Is the receiving water designated as a Public Water Supply? ☐ Yes ☒ No															

B. Applicable criteria affected by variance: 1.3 ng/L Wildlife Criterion
C. Identify any expected impacts that the variance may have upon human health, and include any citations: • The proposed variance will not adversely affect human health directly through the drinking water. • Wisconsin's fish consumption advisory program is designed to mitigate the effect of any ambient mercury concentration above the 1.5 ng/L water quality criterion for the protection of the fish-consuming human population by providing advice to the public to guide them on the amount of fish that may be consumed safely. • Given the lack of wastewater treatment technologies capable of reducing mercury concentrations to achieve a 1.3 ng/L effluent limit, granting a variance in this situation is consistent with protecting the public health, safety and welfare because of the substantial public health and safety benefits of providing wastewater treatment, the continued commitment towards further mercury pollutant minimization, the Wisconsin fish advisory program, and the limited impact of the elevated effluent concentrations given the background mercury concentrations. • DNR's findings suggest that Hg in walleye from Wisconsin lakes changed in the range of 0.5 to 0.8% per year depending on geographical position in the state during the period of 1982–2005. These trends may reflect geographically differing temporal trends in the amount of Hg deposited to Wisconsin lakes. However, long-term changes in other factors, such as water chemistry, fish growth rates, and lake levels, known to impact Hg bioavailability and accumulation may also be important. (Temporal trends of mercury concentrations in Wisconsin walleye (<i>Sander vitreus</i>), 1982–2005, Paul W. Rasmussen, Candy S. Schrank, Patrick A. Campfield. <i>Ecotoxicology</i> (2007) 16:541–550)
Section VII: Aquatic Life and Environmental Impact
A. Aquatic life use designation of receiving water: Warm Water Sport Fish
B. Applicable criteria affected by variance: 1.3 ng/L Wildlife Criterion
C. Identify any environmental impacts to aquatic life expected to occur with this variance, and include any citations: <u>Not Likely to Adversely Affect</u> • Ambient mercury concentrations resulting from the variance will be substantially less than levels that result in direct toxicity to aquatic organisms. EPA's current chronic aquatic life criterion for mercury is 0.9081 µg/L, which is approximately three orders of magnitude greater than the wildlife criteria (0.0013 µg/L). Wisconsin's criteria are 0.44 µg/L and 0.83 µg/L for chronic and acute toxicity, respectively. ○ Hine's emerald dragonfly (<i>Somatochlora hineana</i>, endangered) ○ Higgins' Eye mussel (<i>Lampsilis higginsii</i>, endangered) ○ Winged Mapleleaf mussel (<i>Quadrula fragosa</i>, endangered) ○ Spectaclecase (<i>Cumberlandia monodonta</i>, candidate) ○ Sheepnose (<i>Plethobasus cyphus</i>, candidate) • Low trophic level prey where mercury in prey is unlikely to accumulate to toxic levels in the organism. ○ Piping plover (<i>Charadrius melodus</i>, endangered) ○ Eastern massasauga rattlesnake (<i>Sistrurus catenatus catenatus</i>, candidate) <u>May Affect, Not Likely to Adversely Affect</u> • Bald eagle (<i>Haliaeetus leucocephalus</i>, Delisted due to Recovery) Bald eagles consume fish and waterfowl from surface waters, which puts them at risk of exposure to toxic levels of mercury due to bioaccumulation of mercury in their prey organisms. However, despite the potential for exposure, ambient surface water data show that in recent decades, mercury levels have not increased and bald eagle populations have continued to grow. This indicates that current ambient concentrations of mercury and mercury concentrations in prey organisms do not appear to be limiting recovery of bald eagle populations in Wisconsin. Although this variance will allow permitted dischargers additional time to identify and control sources of mercury in their discharges, the pollutant minimization component of the variances should result in a net reduction in the amount of mercury discharged to Wisconsin surface waters from permitted point sources, further reducing any risk to bald eagles. In addition, the pollutant minimization programs encourage other pollution prevention efforts, which has a beneficial indirect effect of reducing the use and production of products and processes that use or contribute mercury to the environment. These efforts will also benefit bald eagles.

D. List any Endangered or Threatened species known or likely to occur within the affected area, and include any citations:

Because mercury is pervasive, persistent and bioaccumulating in the environment, we considered all species listed for the entire state of Wisconsin. The following list contains Federally Endangered and Threatened Species in Wisconsin from the U.S. Fish and Wildlife Service, Region 3, May 2026.

BIRDS

Piping Plover (E)

CLAMS

Higgins Eye (E)

Sheepnose Mussel (E)

Snuffbox Mussel (E)

Spectaclecase (mussel) (E)

Winged Mapleleaf (mussel) (E)

FLOWERING PLANTS

Dwarf lake iris (T)

Eastern prairie fringed orchid (T)

Fassett's locoweed (T)

Mead's Milkweed (T)

Northern wild monkwewood (T)

Pitcher's thistle (T)

Prairie Bush Clover (T)

INSECTS

Hine's emerald dragonfly (E)

Karner Blue Butterfly (E)

Poweshiek skipperling (E)

Rusty Patched Bumble Bee (E)

MAMMALS

Indiana bat (E)

Northern Long-eared Bat (E)

REPTILES

Eastern Massasauga (T)

SNAILS

Iowa Pleistocene snail (E)

Citation: U.S. Fish and Wildlife Service – Environmental Conservation Online System (<http://www.fws.gov/endangered/>) and National Heritage Index (<http://dnr.wi.gov/topic/nhi/>)

Section VIII: Economic Impact and Feasibility

A. Describe the permittee's current pollutant control technologies in the treatment process:

The City of Menomonie operates an advanced class, activated sludge wastewater treatment facility (WWTF) that treats domestic and industrial wastewater. The WWTF accepts septic and domestic holding tank waste and landfill leachate. Treatment includes raw wastewater pumping, a 6-millimeter fine screen, grit removal, primary settling, biological and chemical phosphorus removal, activated sludge, secondary settling, tertiary reactive sand filters, and UV disinfection. Waste activated sludge (WAS) is thickened by dissolved air floatation. Sludge is anaerobically digested, thickened by a gravity belt thickener, and hauled to a sludge storage site until land application on Department approved sites.

B. What modifications would be necessary to comply with the current limits? Include any citations.

The Department did not evaluate what actions, modifications or other changes would be needed to meet limits based on the water quality standard. As discussed below, the Department considers treating to produce effluent at concentrations to meet the limit to be technically and economically infeasible.

Citation: Assessing the Economic Impacts of the Proposed Ohio EPA Water Rules on the Ohio Economy, April 24, 1997, Ohio Environmental Protection Agency, Division of Surface Water and Foster Wheeler Environmental Corporation and DRI/McGraw-Hill in support of Amended and New Rules in OAC Chapters 3745-1, -2, and -33.

Page 6

Continue personal contact and meetings with 3M and Con Agra Foods to ensure mercury minimization and best management practices are followed	☐ Yes ☒ No
Expand personal contact and wastewater sampling for mercury to these industries: Anderson Windows, Cardinal Glass, and Philips Plastics	☐ Yes ☒ No
Sample the 2 main industrial facility lift stations for mercury	☒ Yes ☐ No
Personal contact/random inspection to ensure PMP compliance at medical facilities	☒ Yes ☐ No
Personal contact/random inspection to ensure PMP compliance at academic facilities	☒ Yes ☐ No
Education/outreach: Used medication drop off at the County Sherriff Department	☒ Yes ☐ No
Education/outreach: Two county hazardous waste collection events annually	☒ Yes ☐ No
Education/outreach: Hazardous Waste Collection Event and mercury information: Press release to all media, print ads in newspaper, website information	☒ Yes ☐ No
Education/outreach: Waste Research Recycling Eau Clari for mercury drop off	☒ Yes ☐ No
Education/outreach: Fluorescent bulb recycling – Dunn Co. Transfer Station – continuous	☒ Yes ☐ No
Education/outreach: Residential door hangers with information regarding mercury	☒ Yes ☐ No
Education/outreach: Hire a summer employee to expand the door hanger placement to more neighborhoods	☒ Yes ☐ No
Education/outreach: Add information to the City's website regarding best management practices for mercury	☒ Yes ☐ No
Education/outreach: Expand mercury sampling and analysis to waste from septic haulers that are from non-residential sources such as industries, shop catch basin, and agricultural sources to learn if hauled waste is a source of mercury to the system	☒ Yes ☐ No