



CITY OF MERRILL

WATER & SEWAGE DISPOSAL COMMITTEE

AGENDA • WEDNESDAY MARCH 27, 2019

Regular Meeting

City Hall Council Chambers

5:00 PM

- I. Call to Order
- II. Preliminary Items
 1. February Vouchers
- III. Agenda Items for Consideration
 1. Review of the Wastewater Treatment Plants approved WPDES Permit
 2. Discussion on the need for Water Tower Mixers
- IV. Monthly Report
 1. Operations Report
- V. Public Comment Period
- VI. Establish date, time & location of next meeting
- VII. Adjournment

PACKET: 08024 3/13/19 wu ap

VENDOR SET: 01

**** CHECK LISTING ****

BANK : 4 UTILITY A/P

VENDOR	NAME / I.D.	DESC	CHECK TYPE	CHECK DATE	DISCOUNT	AMOUNT	CHECK NO#	CHECK AMOUNT
004374	AgSOURCE COOPERATIVE SERVICES							
	I-2019021230618	AgSOURCE COOPERATIVE SERVICES	R	3/13/2019		230.00CR	162934	230.00
002119	ALL AMERICAN GASKET INC							
	I-15739	ALL AMERICAN GASKET INC	R	3/13/2019		335.21CR	162935	335.21
003126	B & M TECHNICAL SERVICES INC							
	I-6901	B & M TECHNICAL SERVICES INC	R	3/13/2019		514.80CR	162936	514.80
003513	BATTERIES PLUS							
	I-022819	BATTERIES PLUS	R	3/13/2019		350.06CR	162937	350.06
001521	BAY TOWEL, INC							
	I-022819	BAY TOWEL, INC	R	3/13/2019		469.81CR	162938	469.81
002809	CARQUEST OF MERRILL							
	I-022819	CARQUEST OF MERRILL	R	3/13/2019		137.06CR	162939	137.06
000215	CHEMTRADE CHEMICALS US LLC							
	I-92570043	CHEMTRADE CHEMICALS US LLC	R	3/13/2019		3,759.03CR	162940	3,759.03
000381	CITY OF MERRILL							
	I-REPL - SWG	CITY OF MERRILL	R	3/13/2019		20,000.00CR	162941	20,000.00
001556	CORE & MAIN LP							
	I-022819	CORE & MAIN LP	R	3/13/2019		7,408.46CR	162942	7,408.46
004366	CRANE ENGINEERING SALES INC							
	I-349036	CRANE ENGINEERING SALES INC	R	3/13/2019		20,109.96CR	162943	20,109.96
000206	DIGGERS HOTLINE							
	I-INV# 190 1 56501	DIGGERS HOTLINE	R	3/13/2019		30.40CR	162944	30.40
003239	ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE INC							
	I-QUOTE #25891438	ENVIRONMENTAL SYSTEMS RESEARCH	R	3/13/2019		6,600.00CR	162945	6,600.00
001867	ENVIROTECH EQUIPMENT CO.							
	I-022819	ENVIROTECH EQUIPMENT CO.	R	3/13/2019		1,158.68CR	162946	1,158.68
000212	FASTENAL COMPANY							
	I-022819	FASTENAL COMPANY	R	3/13/2019		361.50CR	162947	361.50

Attachment: February Vouchers (4038 : February Vouchers)

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VENDOR	NAME / I.D.	DESC	CHECK TYPE	CHECK DATE	DISCOUNT	AMOUNT	CHECK NO#	CHECK AMOUNT
000632	FERGUSON ENTERPRISES #1476							
	I-022819	FERGUSON ENTERPRISES #1550	R	3/13/2019		694.33CR	162948	694.33
002661	FRONTIER							
	I-022819	FRONTIER	R	3/13/2019		152.23CR	162949	152.23
002849	HYDROCORP							
	I-0051396-IN	HYDROCORP	R	3/13/2019		1,340.00CR	162950	1,340.00
001017	JANSSEN HEATING & COOLING							
	I-022819	JANSSEN HEATING & COOLING	R	3/13/2019		72.00CR	162951	72.00
000751	L W ALLEN LLC							
	I-107497	L W ALLEN LLC	R	3/13/2019		2,914.16CR	162952	2,914.16
000313	LINCOLN CO TREASURER'S OFFICE							
	I-12269	LINCOLN CO TREASURER'S OFFICE	R	3/13/2019		180.73CR	162953	180.73
000351	LOCAL GOVERNMENT INVESTMENT POOL							
	I-REVENUE BON.REDEM	LOCAL GOVERNMENT INVESTMENT PO	R	3/13/2019		8,750.00CR	162954	8,750.00
000157	LONDERVILLE STEEL							
	I-520865	LONDERVILLE STEEL	R	3/13/2019		308.00CR	162955	308.00
000522	MECHANICAL, INC.							
	I-0053677	MECHANICAL, INC.	R	3/13/2019		27,000.00CR	162956	27,000.00
001064	MENARDS - WAUSAU							
	I-22785	MENARDS - WAUSAU	R	3/13/2019		127.57CR	162957	127.57
000041	MERRILL ACE HARDWARE							
	I-022819	MERRILL ACE HARDWARE	R	3/13/2019		65.72CR	162958	65.72
000328	MERRILL WATER UTILITY							
	I-JET VAC USAGE	MERRILL WATER UTILITY	R	3/13/2019		340.85CR	162959	340.85
000540	NAPA AUTO PARTS							
	I-022819	NAPA AUTO PARTS	R	3/13/2019		27.83CR	162960	27.83
000336	NIENOW ELECTRIC, INC							
	I-022819	NIENOW ELECTRIC, INC	R	3/13/2019		2,788.38CR	162961	2,788.38

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VENDOR	NAME / I.D.	DESC	CHECK TYPE	CHECK DATE	DISCOUNT	AMOUNT	CHECK NO#	CHECK AMOUNT
000337	NORTH CENTRAL LABORATORIES I-418831	NORTH CENTRAL LABORATORIES	R	3/13/2019		170.84CR	162962	170.84
001979	P B B S EQUIPMENT CORPORATION I-022819	P B B S EQUIPMENT CORPORATION	R	3/13/2019		1,980.59CR	162963	1,980.59
000362	PETERSON BROS. SAND I-13648	PETERSON BROS. SAND	R	3/13/2019		535.75CR	162964	535.75
002154	POLLARD WATER I-022819	POLLARD WATER	R	3/13/2019		1,427.20CR	162965	1,427.20
000586	QUILL CORPORATION I-022819	QUILL CORPORATION	R	3/13/2019		215.80CR	162966	215.80
000379	RIESTERER & SCHNELL INC I-1486567	RIESTERER & SCHNELL INC	R	3/13/2019		371.77CR	162967	371.77
002659	SEILER INSTRUMENT & MFG CO INC. I-INV-377951	SEILER INSTRUMENT & MFG CO I	R	3/13/2019		1,380.00CR	162968	1,380.00
000568	U.S. POSTAL SERVICE I-POSTAGE FOR PERMIT	U.S. POSTAL SERVICE	R	3/13/2019		2,000.00CR	162969	2,000.00
000650	VICTORY JANITORIAL, INC. I-105654	VICTORY JANITORIAL, INC.	R	3/13/2019		209.37CR	162970	209.37
000284	VIP ALL-VALUE I-022819	VIP ALL-VALUE	R	3/13/2019		85.56CR	162971	85.56
000299	WAL-MART COMMUNITY/SYNCE I-022819	WAL-MART COMMUNITY/SYNCE	R	3/13/2019		85.82CR	162972	85.82
004478	WATERSURPLUS/SURPLUS MANAGEMENT INC I-022819	WATERSURPLUS/SURPLUS MANAGEMEN	R	3/13/2019		5,096.50CR	162973	5,096.50
000587	WI STATE LAB OF HYGIENE I-584872	WI STATE LAB OF HYGIENE	R	3/13/2019		26.00CR	162974	26.00
003722	BRAD WIRT I-TRIMBLE SCREEN	BRAD WIRT	R	3/13/2019		51.00CR	162975	51.00

Attachment: February Vouchers (4038 : February Vouchers)

3/13/2019 12:54 PM

A / P CHECK REGISTER

PAGE: 4

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PACKET: 08024 3/13/19 wu ap

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**** CHECK LISTING ****

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VENDOR	NAME / I.D.	DESC	CHECK TYPE	CHECK DATE	DISCOUNT	AMOUNT	CHECK NO#	CHECK AMOUNT
000656	WISCONSIN PUBLIC SERVICE							
	I-022819	WISCONSIN PUBLIC SERVICE	R	3/13/2019		11,186.74CR	162976	11,186.74

* * T O T A L S * *	NO#	DISCOUNTS	CHECK AMT	TOTAL APPLIED
REGULAR CHECKS:	43	0.00	131,049.71	131,049.71
HANDWRITTEN CHECKS:	0	0.00	0.00	0.00
PRE-WRITE CHECKS:	0	0.00	0.00	0.00
DRAFTS:	0	0.00	0.00	0.00
VOID CHECKS:	0	0.00	0.00	0.00
NON CHECKS:	0	0.00	0.00	0.00
CORRECTIONS:	0	0.00	0.00	0.00
REGISTER TOTALS:	43	0.00	131,049.71	131,049.71

TOTAL ERRORS: 0

TOTAL WARNINGS: 0

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** POSTING PERIOD RECAP **

FUND	PERIOD	AMOUNT
10	3/2019	3,960.00CR
62	3/2019	35,179.61CR
63	3/2019	91,910.10CR
=====		
ALL		131,049.71CR

Attachment: February Vouchers (4038 : February Vouchers)

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
 Northern Region Headquarters
 810 W. Maple Street
 Spooner, WI 54801-1255

Tony Evers, Governor
 Preston D. Cole, Secretary
 Telephone (715) 635-2101
 Toll Free 1-888-936-7463
 TTY Access via relay - 711



Bill Bialecki, Mayor
 City of Merrill
 1004 E. First Street
 Merrill, WI 54452

SUBJECT: WPDES Permit Reissuance No. WI-0020150-10-0
 City of Merrill, 2606 Sturdevant Street, Merrill, Wisconsin

Dear Permittee:

Your Wisconsin Pollutant Discharge Elimination System (WPDES) Permit is enclosed. The conditions of the enclosed permit reissuance were determined using the permit application, information from your WPDES permit file, other information available to the Department, comments received during the public notice period, and applicable Wisconsin Administrative Codes. All discharges from this facility and actions or reports relating thereto shall be in accordance with the terms and conditions of the enclosed permit.

This enclosed permit requires you to submit monitoring results to the Department on a periodic basis. Monitoring forms, which must be submitted electronically, are available on the Department's web page. Go to the DNR Switchboard page at <http://dnr.wi.gov/topic/switchboard/> to log in and access your monitoring forms. For your convenience, there is a 'Summary of Reports Due' at the end of the enclosed permit that shows a synopsis of the required reports and monitoring forms.

The WPDES permit program has been approved by the Administrator of the U.S. Environmental Protection Agency pursuant to Section 402(b) of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. Section 1342 (b)). The terms and conditions of the enclosed permit are accordingly subject to enforcement under ss. 283.89 and 283.91, Stats., and Section 309 of the Federal Act (33 U.S.C. Section 1319).

The Department has the authority under chs. 160 and 283, Wis. Stats., to establish effluent limitations, monitoring requirements, and other permit conditions for discharges to groundwater and surface waters of the State. The Department also has the authority to issue, reissue, modify, terminate, or revoke and reissue WPDES permits under ch. 283, Wis. Stats.

The enclosed permit contains water quality-based effluent limitations that are necessary to ensure the water quality standards for Wisconsin River are met. You may apply for a variance from the water quality standard used to derive the limitations pursuant to s. 283.15, Stats., by submitting an application to the Director of the Bureau of Water Quality, P.O. Box 7921, Madison, Wisconsin 53707 within 60 days of the date the permit was issued (see "Date Permit Signed/Issued" after the signature on the front page of the enclosed permit). This statute also allows the permittee to apply for a variance to the water quality standard when applying for reissuance of the permit. Subchapter III of ch. NR 200, Wis. Adm. Code, specifies the procedures that must be followed and the information that must be included when submitting an application for a variance.

To challenge the reasonableness of or necessity for any term or condition of the enclosed permit, s. 283.63, Stats., and ch. NR 203, Wis. Adm. Code, require that you file a verified petition for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was issued (see "Date Permit Signed/Issued" after the signature on the front page of the enclosed permit). For permit-related decisions that are not reviewable pursuant to s. 283.63, Stats., it may be possible for permittees or other persons to obtain an administrative review pursuant to s. 227.42, Stats., and s. NR 2.05(5), Wis. Adm. Code, or a judicial review pursuant to s. 227.52, Stats. If you choose to pursue one of these options, you should know that Wisconsin

Statutes and Administrative Code establish time periods within which requests to review Department decisions must be filed.

Sincerely,

Michelle Balk
Wastewater Field Supervisor - NOR

Dated: Michael M. Rose

cc: Legal Permit File
U.S. Fish and Wildlife Service (Electronic Copy via Email)
Austin Griesbach, WDNR - Rhinelander
EPA – Region V (Electronic Copy via Email)
Gabriel Steinagel, Merrill Wastewater Treatment Plant, 2401 River St, Merrill, WI 54452

The WPDES Clean Water Permit for the City of Merrill Wastewater Treatment Plant



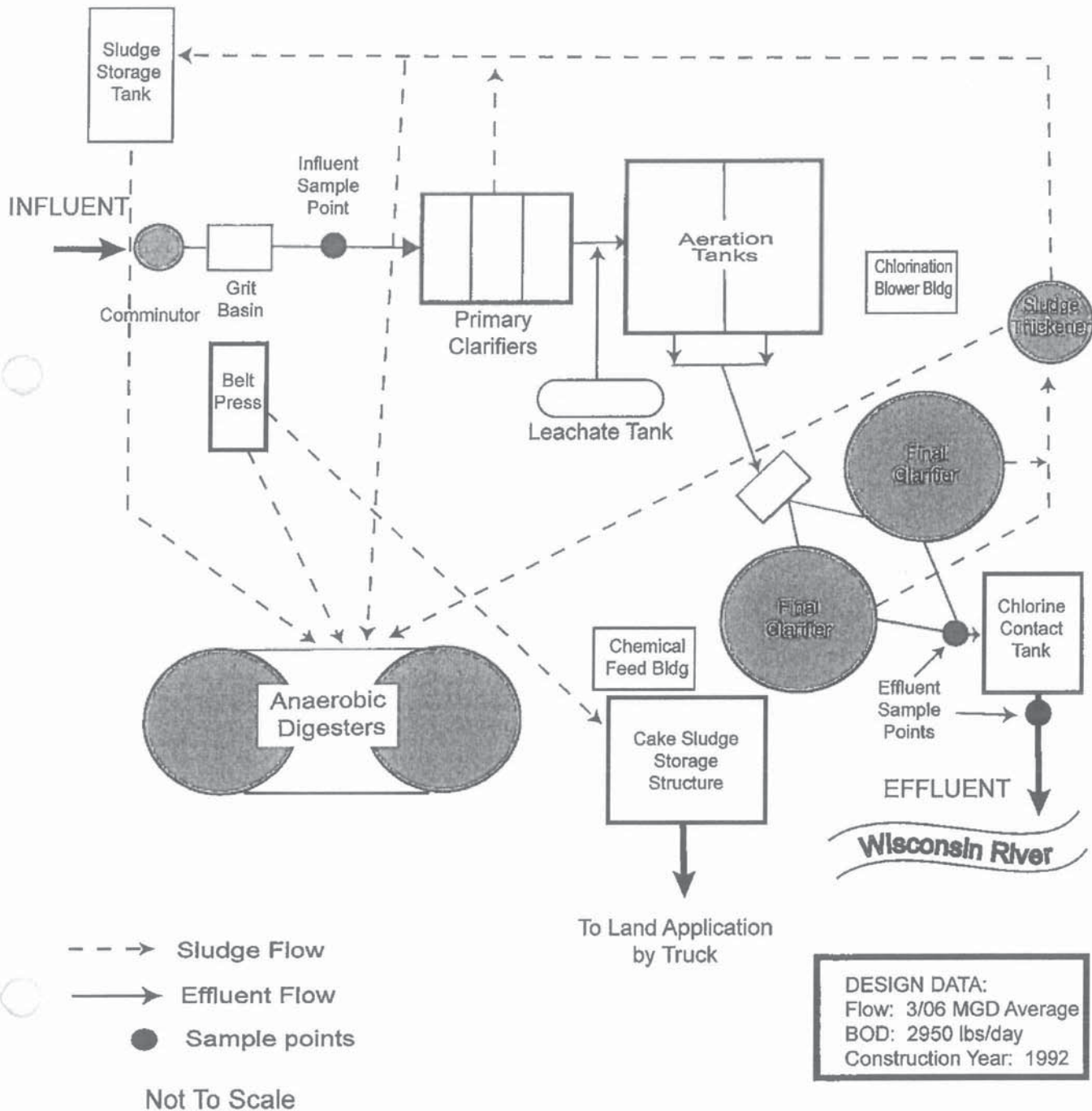
Our
Shared
Responsibility



THE CITY OF MERRILL

WASTEWATER TREATMENT FACILITY DESCRIPTION AND FLOW DIAGRAM

This wastewater treatment facility is an activated sludge system with 3 primary clarifiers, chemical phosphorus removal using alum, 2 aeration tanks, 2 final clarifiers, chlorine disinfection, and dechlorination. Sludge is digested anaerobically, dewatered via a belt press, and land applied in cake form. Effluent is discharged to the Wisconsin River. A flow diagram below shows the treatment units and sampling locations.



WPDES Permit No. WI-0020150-10-0



WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
 PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE
 ELIMINATION SYSTEM

CITY OF MERRILL

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility
 located at

2606 STURDEVANT STREET, MERRILL, WISCONSIN

to

THE WISCONSIN RIVER WITHIN THE PRAIRIE RIVER WATERSHED IN THE UPPER WISCONSIN
 RIVER BASIN IN LINCOLN COUNTY

in accordance with the effluent limitations, monitoring requirements and other conditions set
 forth in this permit.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit, according to Chapter NR 200, Wis. Adm. Code, at least 180 days prior to the expiration date given below.

State of Wisconsin Department of Natural Resources
 For the Secretary

By *Michelle M Balk*
 Michelle Balk
 Wastewater Field Supervisor - NOR

3-11-19
 Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - April 01, 2019

EXPIRATION DATE - March 31, 2024

Attachment: Revised Approved WPDES Permit for the WWTP (4049 : Review of the Wastewater Treatment Plants approved WPDES Permit)

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WPDES Permit No. WI-0020150-10-0
CITY OF MERRILL

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1 Influent Requirements

1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
701	Representative samples shall be collected from the aerated channel after screening for grit removal prior to the primary clarifiers.

1.2 Monitoring Requirements

The permittee shall comply with the following monitoring requirements.

1.2.1 Sampling Point 701 - INFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Continuous	Continuous	
BOD ₅ , Total		mg/L	5/Week	24-Hr Comp	
CBOD ₅		mg/L	5/Week	24-Hr Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See the "Mercury Monitoring" subsection for more information.
Hexachlorobenzene		µg/L	Quarterly	Grab	Quarterly sampling is required the first year (April 2019 through March 2020).

1.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

2 In-Plant Requirements

2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
101	At least one field blank shall be collected for each day a sample of mercury is collected from Outfall 001. The purpose of the field blank is to determine whether the field or sample transporting procedures and environment have contaminated the sample.

2.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

2.2.1 Sampling Point 101 - EFFLUENT 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 the "Mercury Monitoring" subsection for more information.

2.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

3 Surface Water Requirements

3.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
001	Representative samples shall be collected downstream of final clarification prior to the chlorine contact tank except for samples for pH, fecal coliform, chlorine residual, and WET testing which shall be collected after the last treatment unit.

3.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations.

3.2.1 Sampling Point (Outfall) 001 - EFFLUENT

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
CBOD ₅	Monthly Avg	25 mg/L	5/Week	24-Hr Flow Prop Comp	
CBOD ₅	Weekly Avg	40 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	5/Week	24-Hr Flow Prop Comp	
Chlorine, Total Residual	Daily Max	38 µg/L	5/Week	Grab	Limit and monitoring effective May through September.
Chlorine, Total Residual	Monthly Avg	38 µg/L	5/Week	Grab	Limit and monitoring effective May through September.
Chlorine, Total Residual	Weekly Avg	38 µg/L	5/Week	Grab	Limit and monitoring effective May through September.
Fecal Coliform	Geometric Mean - Monthly	400 #/100 ml	Weekly	Grab	Limit and monitoring effective May through September.
Fecal Coliform	Geometric Mean - Wkly	656 #/100 ml	Weekly	Grab	Limit and monitoring effective May through September.

WPDES Permit No. WI-0020150-10-0
CITY OF MERRILL

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
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	
Mercury, Total Recoverable	Daily Max	9.85 ng/L	Quarterly	Grab	This is an interim limit. See the "Mercury Variance" subsection for more information.
Hexachlorobenzene		µg/L	Quarterly	Grab	Quarterly sampling is required the first year (April 2019 through March 2020).
Acute WET	Daily Max	1.0 TU _a	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual acute WET testing is required. See the schedule found in the "WET Testing" subsection.

3.2.1.1 Annual Average Design Flow

The annual average design flow of the permittee's wastewater treatment facility is 3.06 MGD.

3.2.1.2 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wisconsin Administrative Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

Mercury Variance – Implement Pollutant Minimization Plan

This permit contains a variance to the water quality-based effluent limit (WQBEL) for mercury granted in accordance with s. 283.15, Stats. As conditions of this variance the permittee shall (a) maintain effluent quality at or below the interim effluent limitation specified in the table above, (b) implement the mercury pollutant minimization measures specified below, (c) follow the Pollutant Minimization Plan and (d) perform the actions listed in the compliance schedule. (See the Schedules section herein.):

Medical Facilities

- Update BMP forms

Education of disposal programs and spill management

- Dental facilities
- Area schools
- Industrial contributors
 - Repeat contacts with industries that are potential sources

Monitor mercury levels in influent, effluent and sludge
Implement sampling at various locations throughout sewer service area to help identify potential sources of mercury. Work to eliminate or reduce mercury from any identified sources.

3.2.1.3 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Wisconsin River

Acute Mixing Zone Concentration: N/A

Dilution series: At least five effluent concentrations and dual controls must be included in each test.

- **Acute:** 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.

WET Testing Frequency:

Acute tests shall be conducted once each year in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- 2019 – Fourth quarter (October 1st – December 31st)
- 2020 – Third quarter (July 1st – September 30th)
- 2021 – Second quarter (April 1st – June 30th)
- 2022 – First quarter (January 1st – March 31st)
- 2023 - Fourth quarter (October 1st – December 31st)

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the second year of this permit. For example, the next test (2024) would be required in third quarter.

Testing: WET testing shall be performed during normal operating conditions. Permittees are not allowed to turn off or otherwise modify treatment systems, production processes, or change other operating or treatment conditions during WET tests.

Reporting: The permittee shall report test results on the Discharge Monitoring Report form, and also complete the "Whole Effluent Toxicity Test Report Form" (Section 6, *State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition*), for each test. The original, complete, signed version of the Whole Effluent Toxicity Test Report Form shall be sent to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921, within 45 days of test completion. The Discharge Monitoring Report (DMR) form shall be submitted electronically by the required deadline.

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species. The TU_a shall be calculated as follows: $TU_a = 100 \div LC_{50}$.

Additional Testing Requirements: Within 90 days of a test which showed positive results, the permittee shall submit the results of at least 2 retests to the Biomonitoring Coordinator on "Whole Effluent Toxicity Test Report Forms". The 90 day reporting period shall begin the day after the test which showed a positive result. The retests shall be completed using the same species and test methods specified for the original test (see the Standard Requirements section herein).

3.2.1.4 Total Maximum Daily Load (TMDL) Limitations

TMDL Under Development: A Total Maximum Daily Load (TMDL) is being developed for the Wisconsin River to address phosphorus water quality impairments within the TMDL area. This TMDL will likely result in limitations for phosphorus that must be included in WPDES permits, which may be different than those calculated for this permit reissuance. TMDL-derived limits may be included in lieu of or in addition to the calculated limits upon permit reissuance or modification once the TMDL has been approved by U.S. EPA, according to s. NR 217.16, Wis. Adm. Code.

4 Land Application Requirements

4.1 Sampling Point(s)

The discharge(s) shall be limited to land application of the waste type(s) designated for the listed sampling point(s) on Department approved land spreading sites or by hauling to another facility.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
002	Samples shall be collected at a point and in a manner which will yield sample results representative of the sludge being tested and collected at a time which is appropriate for the specific test.
003	Samples shall be collected prior to land application of the primary digester sludge for List 1, 2, 3 and 4. Department notification is required prior to landspreading.
004	Samples shall be collected prior to land application of the secondary digester sludge for List 1, 2, 3 and 4. Department notification is required prior to landspreading.

4.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

4.2.1 Sampling Point (Outfall) 002 - ANAEROBIC SLUDGE; 003- PRIMARY DIGESTER, and 004- SECONDARY DIGESTER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Annual	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Annual	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Annual	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Annual	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Annual	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Annual	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Annual	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Composite	
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	

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Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Annual	Composite	
Phosphorus, Total		Percent	Annual	Composite	
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	
Potassium, Total Recoverable		Percent	Annual	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	

Other Sludge Requirements	
Sludge Requirements	Sample Frequency
List 3 Requirements – Pathogen Control: The requirements in List 3 shall be met prior to land application of sludge.	Annual
List 4 Requirements – Vector Attraction Reduction: The vector attraction reduction shall be satisfied prior to, or at the time of land application as specified in List 4.	Annual

4.2.1.1 Changes in Feed Sludge Characteristics

If a change in feed sludge characteristics, treatment process, or operational procedures occurs which may result in a significant shift in sludge characteristics, the permittee shall reanalyze the sludge for List 1, 2, 3 and 4 parameters each time such change occurs.

4.2.1.2 Sludge Which Exceeds the High Quality Limit

Cumulative pollutant loading records shall be kept for all bulk land application of sludge which does not meet the high quality limit for any parameter. This requirement applies for the entire calendar year in which any exceedance of Table 3 of s. NR 204.07(5)(c), is experienced. Such loading records shall be kept for all List 1 parameters for each site land applied in that calendar year. The formula to be used for calculating cumulative loading is as follows:

$$[(\text{Pollutant concentration (mg/kg)} \times \text{dry tons applied/ac}) \div 500] + \text{previous loading (lbs/acre)} = \text{cumulative lbs pollutant per acre}$$

When a site reaches 90% of the allowable cumulative loading for any metal established in Table 2 of s. NR 204.07(5)(b), the Department shall be so notified through letter or in the comment section of the annual land application report (3400-55).

4.2.1.3 Sludge Analysis for PCBs

At Sample Point (Outfall) 002, the permittee shall analyze the sludge for Total PCBs one time during **2020**. The sludge sampled at all three sample points is from the same waste stream, but from different locations in the treatment process. If sludge is removed from Outfall 003 and/or 004, the PCB result from 002 is acceptable and sampling for only Lists 1, 2, 3 and 4 are required prior to landspreading.

PCB results shall be reported as "PCB Total Dry Wt". Either congener-specific analysis or Aroclor analysis shall be used to determine the PCB concentration. The permittee may determine whether Aroclor or congener specific analysis

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is performed. Analyses shall be performed in accordance with Table EM in s. NR 219.04, Wis. Adm. Code and the conditions specified in Standard Requirements of this permit. PCB results shall be submitted by January 31, following the specified year of analysis.

4.2.1.4 Lists 1, 2, 3, and 4

List 1 TOTAL SOLIDS AND METALS	
See the Monitoring Requirements and Limitations table above for monitoring frequency and limitations for the List 1 parameters	
Solids, Total (percent)	
Arsenic, mg/kg (dry weight)	
Cadmium, mg/kg (dry weight)	
Copper, mg/kg (dry weight)	
Lead, mg/kg (dry weight)	
Mercury, mg/kg (dry weight)	
Molybdenum, mg/kg (dry weight)	
Nickel, mg/kg (dry weight)	
Selenium, mg/kg (dry weight)	
Zinc, mg/kg (dry weight)	

List 2 NUTRIENTS	
See the Monitoring Requirements and Limitations table above for monitoring frequency for the List 2 parameters	
Solids, Total (percent)	
Nitrogen Total Kjeldahl (percent)	
Nitrogen Ammonium (NH ₄ -N) Total (percent)	
Phosphorus Total as P (percent)	
Phosphorus, Water Extractable (as percent of Total P)	
Potassium Total Recoverable (percent)	

List 3		
PATHOGEN CONTROL FOR CLASS B SLUDGE		
The permittee shall implement pathogen control as listed in List 3. The Department shall be notified of the pathogen control utilized and shall be notified when the permittee decides to utilize alternative pathogen control.		
The following requirements shall be met prior to land application of sludge.		
Parameter	Unit	Limit
Fecal Coliform [*]	MPN/gTS or CFU/gTS	2,000,000
OR, ONE OF THE FOLLOWING PROCESS OPTIONS		
Aerobic Digestion	Air Drying	
Anaerobic Digestion	Composting	
Alkaline Stabilization	PSRP Equivalent Process	
* The Fecal Coliform limit shall be reported as the geometric mean of 7 discrete samples on a dry weight basis.		

List 4 VECTOR ATTRACTION REDUCTION		
The permittee shall implement any one of the vector attraction reduction options specified in List 4. The Department shall be notified of the option utilized and shall be notified when the permittee decides to utilize an alternative option.		
One of the following shall be satisfied prior to, or at the time of land application as specified in List 4.		
Option	Limit	Where/When it Shall be Met
Volatile Solids Reduction	≥38%	Across the process
Specific Oxygen Uptake Rate	≤1.5 mg O ₂ /hr/g TS	On aerobic stabilized sludge
Anaerobic bench-scale test	<17 % VS reduction	On anaerobic digested sludge
Aerobic bench-scale test	<15 % VS reduction	On aerobic digested sludge
Aerobic Process	>14 days, Temp >40°C and Avg. Temp > 45°C	On composted sludge
pH adjustment	>12 S.U. (for 2 hours) and >11.5 (for an additional 22 hours)	During the process
Drying without primary solids	>75 % TS	When applied or bagged
Drying with primary solids	>90 % TS	When applied or bagged
Equivalent Process	Approved by the Department	Varies with process
Injection	-	When applied
Incorporation	-	Within 6 hours of application

4.2.1.5 Daily Land Application Log

Daily Land Application Log		
Discharge Monitoring Requirements and Limitations		
The permittee shall maintain a daily land application log for biosolids land applied each day when land application occurs. The following minimum records must be kept, in addition to all analytical results for the biosolids land applied. The log book records shall form the basis for the annual land application report requirements.		
Parameters	Units	Sample Frequency
DNR Site Number(s)	Number	Daily as used
Outfall number applied	Number	Daily as used
Acres applied	Acres	Daily as used
Amount applied	As appropriate * /day	Daily as used
Application rate per acre	unit */acre	Daily as used
Nitrogen applied per acre	lb/acre	Daily as used
Method of Application	Injection, Incorporation, or surface applied	Daily as used

*gallons, cubic yards, dry US Tons or dry Metric Tons

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. The annual mercury progress report shall: Indicate which mercury pollutant minimization activities or activities outlined in the approved Pollutant Minimization Plan have been implemented; Include an analysis of trends in quarterly and annual 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 such as loads from industries into the collection system. The first annual mercury progress report is to be submitted by the Due Date.	01/31/2020
Annual Mercury Progress Report #2: Submit a mercury progress report as defined above.	01/31/2021
Annual Mercury Progress Report #3: Submit a mercury progress report as defined above.	01/31/2022
Annual Mercury Progress Report #4: Submit a mercury progress report as defined above.	01/31/2023
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, pollutant minimization activities from the approved pollutant minimization plan were not pursued and why. The report shall include an analysis of trends in quarterly and annual total effluent mercury concentrations based on mercury sampling during the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury such as loads from industries into the collection system. 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 plan outlining the pollutant minimization activities proposed for the upcoming permit term shall be submitted along with the final report.	06/30/2023
Annual Mercury Reports After Permit Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual mercury reports each year covering pollutant minimization activities implemented and mercury concentration trends.	

6 Standard Requirements

NR 205, Wisconsin Administrative Code: The conditions in ss. NR 205.07(1) and NR 205.07(2), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(2).

6.1 Reporting and Monitoring Requirements

6.1.1 Monitoring Results

Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

6.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

6.1.3 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

6.1.4 Reporting of Monitoring Results

The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating NR 101 fees, the 2 mg/l lower reporting limits for BOD₅ and Total Suspended Solids shall be considered to be limits of quantitation
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a 0 (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.

6.1.5 Compliance Maintenance Annual Reports

Compliance Maintenance Annual Reports (CMAR) shall be completed using information obtained over each calendar year regarding the wastewater conveyance and treatment system. The CMAR shall be submitted and certified by the permittee in accordance with ch. NR 208, Wis. Adm. Code, by June 30, each year on an electronic report form provided by the Department.

In the case of a publicly owned treatment works, a resolution shall be passed by the governing body and submitted as part of the CMAR, verifying its review of the report and providing responses as required. Private owners of wastewater treatment works are not required to pass a resolution; but they must provide an Owner Statement and responses as required, as part of the CMAR submittal.

The CMAR shall be certified electronically by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The certification verifies that the electronic report is true, accurate and complete.

6.1.6 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic data records for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application. All pertinent sludge information, including permit application information and other documents specified in this permit or s. NR 204.06(9), Wis. Adm. Code shall be retained for a minimum of 5 years.

6.1.7 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

6.1.8 Reporting Requirements – Alterations or Additions

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source.
- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification requirement applies to pollutants which are not subject to effluent limitations in the existing permit.
- The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use of disposal sites not reported during the permit application process nor reported pursuant to an approved land application plan. Additional sites may not be used for the land application of sludge until department approval is received.

6.2 System Operating Requirements

6.2.1 Noncompliance Reporting

Sanitary sewer overflows and sewage treatment facility overflows shall be reported according to the 'Sanitary Sewer Overflows and Sewage Treatment Facility Overflows' section of this permit.

The permittee shall report the following types of noncompliance by a telephone call to the Department's regional office within 24 hours after becoming aware of the noncompliance:

- any noncompliance which may endanger health or the environment;
- any violation of an effluent limitation resulting from a bypass;
- any violation of an effluent limitation resulting from an upset; and
- any violation of a maximum discharge limitation for any of the pollutants listed by the Department in the permit, either for effluent or sludge.

A written report describing the noncompliance shall also be submitted to the Department's regional office within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

A scheduled bypass approved by the Department under the 'Scheduled Bypass' section of this permit shall not be subject to the reporting required under this section.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources immediately of any discharge not authorized by the permit. **The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at 1-800-943-0003.**

6.2.2 Flow Meters

Flow meters shall be calibrated annually, as per s. NR 218.06, Wis. Adm. Code.

6.2.3 Raw Grit and Screenings

All raw grit and screenings shall be disposed of at a properly licensed solid waste facility or picked up by a licensed waste hauler. If the facility or hauler are located in Wisconsin, then they shall be licensed under chs. NR 500-555, Wis. Adm. Code.

6.2.4 Sludge Management

All sludge management activities shall be conducted in compliance with ch. NR 204 "Domestic Sewage Sludge Management", Wis. Adm. Code.

6.2.5 Prohibited Wastes

Under no circumstances may the introduction of wastes prohibited by s. NR 211.10, Wis. Adm. Code, be allowed into the waste treatment system. Prohibited wastes include those:

- which create a fire or explosion hazard in the treatment work;
- which will cause corrosive structural damage to the treatment work;
- solid or viscous substances in amounts which cause obstructions to the flow in sewers or interference with the proper operation of the treatment work;
- wastewaters at a flow rate or pollutant loading which are excessive over relatively short time periods so as to cause a loss of treatment efficiency; and
- changes in discharge volume or composition from contributing industries which overload the treatment works or cause a loss of treatment efficiency.

6.2.6 Bypass

This condition applies only to bypassing at a sewage treatment facility that is not a scheduled bypass, approved blending as a specific condition of this permit, a sewage treatment facility overflow or a controlled diversion as provided in the sections titled 'Scheduled Bypass', 'Blending' (if approved), 'SSO's and Sewage Treatment Facility Overflows' and 'Controlled Diversions' of this permit. Any other bypass at the sewage treatment facility is prohibited and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats. The Department may approve a bypass if the permittee demonstrates all the following conditions apply:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance. When evaluating feasibility of alternatives, the department may consider factors such as technical achievability, costs and affordability of implementation and risks to public health, the environment and, where the permittee is a municipality, the welfare of the community served; and
- The bypass was reported in accordance with the Noncompliance Reporting section of this permit.

6.2.7 Scheduled Bypass

Whenever the permittee anticipates the need to bypass for purposes of efficient operations and maintenance and the permittee may not meet the conditions for controlled diversions in the 'Controlled Diversions' section of this permit,

the permittee shall obtain prior written approval from the Department for the scheduled bypass. A permittee's written request for Department approval of a scheduled bypass shall demonstrate that the conditions for bypassing specified in the above section titled 'Bypass' are met and include the proposed date and reason for the bypass, estimated volume and duration of the bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

6.2.8 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation. Sewage treatment facilities that have multiple treatment units to treat variable or seasonal loading conditions may shut down redundant treatment units when necessary for efficient operation. The following requirements shall be met during controlled diversions:

- Effluent from the sewage treatment facility shall meet the effluent limitations established in the permit. Wastewater that is diverted around a treatment unit or treatment process during a controlled diversion shall be recombined with wastewater that is not diverted prior to the effluent sampling location and prior to effluent discharge;
- A controlled diversion does not include blending as defined in s. NR 210.03(2e), Wis. Adm. Code, and as may only be approved under s. NR 210.12. A controlled diversion may not occur during periods of excessive flow or other abnormal wastewater characteristics;
- A controlled diversion may not result in a wastewater treatment facility overflow; and
- All instances of controlled diversions shall be documented in sewage treatment facility records and such records shall be available to the department on request.

6.2.9 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training as required in ch. NR 114, Wis. Adm. Code, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

6.2.10 Operator Certification

The wastewater treatment facility shall be under the direct supervision of a state certified operator. In accordance with s. NR 114.53, Wis. Adm. Code, every WPDES permitted treatment plant shall have a designated operator-in-charge holding a current and valid certificate. The designated operator-in-charge shall be certified at the level and in all subclasses of the treatment plant, except laboratory. Treatment plant owners shall notify the department of any changes in the operator-in-charge within 30 days. Note that s. NR 114.52(22), Wis. Adm. Code, lists types of facilities that are excluded from operator certification requirements (i.e. private sewage systems, pretreatment facilities discharging to public sewers, industrial wastewater treatment that consists solely of land disposal, agricultural digesters and concentrated aquatic production facilities with no biological treatment).

6.3 Sewage Collection Systems

6.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows

6.3.1.1 Overflows Prohibited

Any overflow or discharge of wastewater from the sewage collection system or at the sewage treatment facility, other than from permitted outfalls, is prohibited. The permittee shall provide information on whether any of the following conditions existed when an overflow occurred:

- The sanitary sewer overflow or sewage treatment facility overflow was unavoidable to prevent loss of life, personal injury or severe property damage;
- There were no feasible alternatives to the sanitary sewer overflow or sewage treatment facility overflow such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or preventative maintenance activities;
- The sanitary sewer overflow or the sewage treatment facility overflow was caused by unusual or severe weather related conditions such as large or successive precipitation events, snowmelt, saturated soil conditions, or severe weather occurring in the area served by the sewage collection system or sewage treatment facility; and
- The sanitary sewer overflow or the sewage treatment facility overflow was unintentional, temporary, and caused by an accident or other factors beyond the reasonable control of the permittee.

6.3.1.2 Permittee Response to Overflows

Whenever a sanitary sewer overflow or sewage treatment facility overflow occurs, the permittee shall take all feasible steps to control or limit the volume of untreated or partially treated wastewater discharged, and terminate the discharge as soon as practicable. Remedial actions, including those in NR 210.21 (3), Wis. Adm. Code, shall be implemented consistent with an emergency response plan developed under the CMOM program.

6.3.1.3 Permittee Reporting

Permittees shall report all sanitary sewer overflows and sewage treatment overflows as follows:

- The permittee shall notify the department by telephone, fax or email as soon as practicable, but no later than 24 hours from the time the permittee becomes aware of the overflow;
- The permittee shall, no later than five days from the time the permittee becomes aware of the overflow, provide to the department the information identified in this paragraph using department form number 3400-184. If an overflow lasts for more than five days, an initial report shall be submitted within 5 days as required in this paragraph and an updated report submitted following cessation of the overflow. At a minimum, the following information shall be included in the report:
 - The date and location of the overflow;
 - The surface water to which the discharge occurred, if any;
 - The duration of the overflow and an estimate of the volume of the overflow;
 - A description of the sewer system or treatment facility component from which the discharge occurred such as manhole, lift station, constructed overflow pipe, or crack or other opening in a pipe;
 - The estimated date and time when the overflow began and stopped or will be stopped;
 - The cause or suspected cause of the overflow including, if appropriate, precipitation, runoff conditions, areas of flooding, soil moisture and other relevant information;
 - Steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
 - A description of the actual or potential for human exposure and contact with the wastewater from the overflow;
 - Steps taken or planned to mitigate the impacts of the overflow and a schedule of major milestones for those steps;
 - To the extent known at the time of reporting, the number and location of building backups caused by excessive flow or other hydraulic constraints in the sewage collection system that occurred

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concurrently with the sanitary sewer overflow and that were within the same area of the sewage collection system as the sanitary sewer overflow; and

*The reason the overflow occurred or explanation of other contributing circumstances that resulted in the overflow event. This includes any information available including whether the overflow was unavoidable to prevent loss of life, personal injury, or severe property damage and whether there were feasible alternatives to the overflow.

NOTE: A copy of form 3400-184 for reporting sanitary sewer overflows and sewage treatment facility overflows may be obtained from the department or accessed on the department's web site at <http://dnr.wi.gov/topic/wastewater/SSOreport.html>. As indicated on the form, additional information may be submitted to supplement the information required by the form.

- The permittee shall identify each specific location and each day on which a sanitary sewer overflow or sewage treatment facility overflow occurs as a discrete sanitary sewer overflow or sewage treatment facility overflow occurrence. An occurrence may be more than one day if the circumstances causing the sanitary sewer overflow or sewage treatment facility overflow results in a discharge duration of greater than 24 hours. If there is a stop and restart of the overflow at the same location within 24 hours and the overflow is caused by the same circumstance, it may be reported as one occurrence. Sanitary sewer overflow occurrences at a specific location that are separated by more than 24 hours shall be reported as separate occurrences; and
- A permittee that is required to submit wastewater discharge monitoring reports under NR 205.07 (1) (r) shall also report all sanitary sewer overflows and sewage treatment facility overflows on that report.

6.3.1.4 Public Notification

The permittee shall notify the public of any sanitary sewer and sewage treatment facility overflows consistent with its emergency response plan required under the CMOM (Capacity, Management, Operation and Maintenance) section of this permit and s. NR 210.23 (4) (f), Wis. Adm. Code. Such public notification shall occur promptly following any overflow event using the most effective and efficient communications available in the community. At minimum, a daily newspaper of general circulation in the county(s) and municipality whose waters may be affected by the overflow shall be notified by written or electronic communication.

6.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program

- The permittee shall have written documentation of the Capacity, Management, Operation and Maintenance (CMOM) program components in accordance with s. NR 210.23(4), Wis. Adm. Code. Such documentation shall be available for Department review upon request. The Department may request that the permittee provide this documentation or prepare a summary of the permittee's CMOM program at the time of application for reissuance of the WPDES permit.
- The permittee shall implement a CMOM program in accordance with s. NR 210.23, Wis. Adm. Code.
- The permittee shall at least annually conduct a self-audit of activities conducted under the permittee's CMOM program to ensure CMOM components are being implemented as necessary to meet the general standards of s. NR 210.23(3), Wis. Adm. Code.

6.3.3 Sewer Cleaning Debris and Materials

All debris and material removed from cleaning sanitary sewers shall be managed to prevent nuisances, run-off, ground infiltration or prohibited discharges.

- Debris and solid waste shall be dewatered, dried and then disposed of at a licensed solid waste facility.
- Liquid waste from the cleaning and dewatering operations shall be collected and disposed of at a permitted wastewater treatment facility.

- Combination waste including liquid waste along with debris and solid waste may be disposed of at a licensed solid waste facility or wastewater treatment facility willing to accept the waste.

6.4 Surface Water Requirements

6.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

For pollutants with water quality-based effluent limits below the Limit of Quantitation (LOQ) in this permit, the LOQ calculated by the permittee and reported on the Discharge Monitoring Reports (DMRs) is incorporated by reference into this permit. The LOQ shall be reported on the DMRs, shall be the lowest quantifiable level practicable, and shall be no greater than the minimum level (ML) specified in or approved under 40 CFR Part 136 for the pollutant at the time this permit was issued, unless this permit specifies a higher LOQ.

6.4.2 Appropriate Formulas for Effluent Calculations

The permittee shall use the following formulas for calculating effluent results to determine compliance with average concentration limits and mass limits and total load limits:

Weekly/Monthly/Six-Month/Annual Average Concentration = the sum of all daily results for that week/month/six-month/year, divided by the number of results during that time period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Weekly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the week.

Monthly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the month.

Six-Month Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the six-month period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Annual Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the entire year.

Total Monthly Discharge: = monthly average concentration (mg/L) x total flow for the month (MG/month) x 8.34.

Total Annual Discharge: = sum of total monthly discharges for the calendar year.

12-Month Rolling Sum of Total Monthly Discharge: = the sum of the most recent 12 consecutive months of Total Monthly Discharges.

6.4.3 Visible Foam or Floating Solids

There shall be no discharge of floating solids or visible foam in other than trace amounts.

6.4.4 Surface Water Uses and Criteria

In accordance with NR 102.04, Wis. Adm. Code, surface water uses and criteria are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development or other activities shall be controlled so that all surface waters including the mixing zone meet the following conditions at all times and under all flow and water level conditions:

- Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.

- b) Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.
- c) Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.
- d) Substances in concentrations or in combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

6.4.5 Percent Removal

During any 30 consecutive days, the average effluent concentrations of BOD₅ and of total suspended solids shall not exceed 15% of the average influent concentrations, respectively. This requirement does not apply to removal of total suspended solids if the permittee operates a lagoon system and has received a variance for suspended solids granted under NR 210.07(2), Wis. Adm. Code.

6.4.6 Fecal Coliforms

The weekly and monthly limit(s) for fecal coliforms shall be expressed as a geometric mean.

6.4.7 Seasonal Disinfection

Disinfection shall be provided from May 1 through September 30 of each year. Monitoring requirements and the limitation for fecal coliforms apply only during the period in which disinfection is required. Whenever chlorine is used for disinfection or other uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used.

6.4.8 Whole Effluent Toxicity (WET) Monitoring Requirements

In order to determine the potential impact of the discharge on aquatic organisms, static-renewal toxicity tests shall be performed on the effluent in accordance with the procedures specified in the *"State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition"* (PUB-WT-797, November 2004) as required by NR 219.04, Table A, Wis. Adm. Code). All of the WET tests required in this permit, including any required retests, shall be conducted on the *Ceriodaphnia dubia* and fathead minnow species. Receiving water samples shall not be collected from any point in contact with the permittee's mixing zone and every attempt shall be made to avoid contact with any other discharge's mixing zone.

6.4.9 Whole Effluent Toxicity (WET) Identification and Reduction

Within 60 days of a retest which showed positive results, the permittee shall submit a written report to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, which details the following:

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including some or all of the following actions:
 - (a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
 - (b) Identify the compound(s) causing toxicity

- (c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
- (d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

The permittee may also request approval from the Department to postpone additional retests in order to investigate the source(s) of toxicity. Postponed retests must be completed after toxicity is believed to have been removed.

6.4.10 Reopener Clause

Pursuant to s. 283.15(11), Wis. Stat. and 40 CFR 131.20, the Department may modify or revoke and reissue this permit if, through the triennial standard review process, the Department determines that the terms and conditions of this permit need to be updated to reflect the highest attainable condition of the receiving water.

6.5 Land Application Requirements

6.5.1 Sludge Management Program Standards And Requirements Based Upon Federally Promulgated Regulations

In the event that new federal sludge standards or regulations are promulgated, the permittee shall comply with the new sludge requirements by the dates established in the regulations, if required by federal law, even if the permit has not yet been modified to incorporate the new federal regulations.

6.5.2 General Sludge Management Information

The General Sludge Management Form 3400-48 shall be completed and submitted prior to any significant sludge management changes.

6.5.3 Sludge Samples

All sludge samples shall be collected at a point and in a manner which will yield sample results which are representative of the sludge being tested, and collected at the time which is appropriate for the specific test.

6.5.4 Land Application Characteristic Report

Each report shall consist of a Characteristic Form 3400-49 and Lab Report. The Characteristic Report Form 3400-49 shall be submitted electronically by January 31 following each year of analysis.

Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report is true, accurate and complete. The Lab Report must be sent directly to the facility's DNR sludge representative or basin engineer unless approval for not submitting the lab reports has been given.

The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg.

All results shall be reported on a dry weight basis.

6.5.5 Calculation of Water Extractable Phosphorus

When sludge analysis for Water Extractable Phosphorus is required by this permit, the permittee shall use the following formula to calculate and report Water Extractable Phosphorus:

Water Extractable Phosphorus (% of Total P) =

$[\text{Water Extractable Phosphorus (mg/kg, dry wt)} \div \text{Total Phosphorus (mg/kg, dry wt)}] \times 100$

6.5.6 Monitoring and Calculating PCB Concentrations in Sludge

When sludge analysis for "PCB, Total Dry Wt" is required by this permit, the PCB concentration in the sludge shall be determined as follows.

Either congener-specific analysis or Aroclor analysis shall be used to determine the PCB concentration. The permittee may determine whether Aroclor or congener specific analysis is performed. Analyses shall be performed in accordance with the following provisions and Table EM in s. NR 219.04, Wis. Adm. Code.

- EPA Method 1668 may be used to test for all PCB congeners. If this method is employed, all PCB congeners shall be delineated. Non-detects shall be treated as zero. The values that are between the limit of detection and the limit of quantitation shall be used when calculating the total value of all congeners. All results shall be added together and the total PCB concentration by dry weight reported. **Note:** It is recognized that a number of the congeners will co-elute with others, so there will not be 209 results to sum.
- EPA Method 8082A shall be used for PCB-Aroclor analysis and may be used for congener specific analysis as well. If congener specific analysis is performed using Method 8082A, the list of congeners tested shall include at least congener numbers 5, 18, 31, 44, 52, 66, 87, 101, 110, 138, 141, 151, 153, 170, 180, 183, 187, and 206 plus any other additional congeners which might be reasonably expected to occur in the particular sample. For either type of analysis, the sample shall be extracted using the Soxhlet extraction (EPA Method 3540C) (or the Soxhlet Dean-Stark modification) or the pressurized fluid extraction (EPA Method 3545A). If Aroclor analysis is performed using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.11 mg/kg as possible. Reporting protocol, consistent with s. NR 106.07(6)(e), should be as follows: If all Aroclors are less than the LOD, then the Total PCB Dry Wt result should be reported as less than the highest LOD. If a single Aroclor is detected then that is what should be reported for the Total PCB result. If multiple Aroclors are detected, they should be summed and reported as Total PCBs. If congener specific analysis is done using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.003 mg/kg as possible for each congener. If the aforementioned limits of detection cannot be achieved after using the appropriate clean up techniques, a reporting limit that is achievable for the Aroclors or each congener for the sample shall be determined. This reporting limit shall be reported and qualified indicating the presence of an interference. The lab conducting the analysis shall perform as many of the following methods as necessary to remove interference:

3620C – Florisil

3640A - Gel Permeation

3630C - Silica Gel

3611B - Alumina

3660B - Sulfur Clean Up (using copper shot instead of powder)

3665A - Sulfuric Acid Clean Up

6.5.7 Annual Land Application Report

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Land Application Report Form 3400-55 shall be submitted electronically by January 31, each year whether or not non-exceptional quality sludge is land applied. Non-exceptional quality sludge is defined in s. NR 204.07(4), Wis. Adm. Code. Following submittal of the electronic Annual Land Application Report Form 3400-55, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.5.8 Other Methods of Disposal or Distribution Report

The permittee shall submit electronically the Other Methods of Disposal or Distribution Report Form 3400-52 by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied. Following submittal of the electronic Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.5.9 Approval to Land Apply

Bulk non-exceptional quality sludge as defined in s. NR 204.07(4), Wis. Adm. Code, may not be applied to land without a written approval letter or Form 3400-122 from the Department unless the Permittee has obtained permission from the Department to self approve sites in accordance with s. NR 204.06 (6), Wis. Adm. Code. Analysis of sludge characteristics is required prior to land application. Application on frozen or snow covered ground is restricted to the extent specified in s. NR 204.07(3) (l), Wis. Adm. Code.

6.5.10 Soil Analysis Requirements

Each site requested for approval for land application must have the soil tested prior to use. Each approved site used for land application must subsequently be soil tested such that there is at least one valid soil test in the four years prior to land application. All soil sampling and submittal of information to the testing laboratory shall be done in accordance with UW Extension Bulletin A-2100. The testing shall be done by the UW Soils Lab in Madison or Marshfield, WI or at a lab approved by UW. The test results including the crop recommendations shall be submitted to the DNR contact listed for this permit, as they are available. Application rates shall be determined based on the crop nitrogen recommendations and with consideration for other sources of nitrogen applied to the site.

6.5.11 Land Application Site Evaluation

For non-exceptional quality sludge, as defined in s. NR 204.07(4), Wis. Adm. Code, a Land Application Site Request Form 3400-053 shall be submitted to the Department for the proposed land application site. The Department will evaluate the proposed site for acceptability and will either approve or deny use of the proposed site. The permittee may obtain permission to approve their own sites in accordance with s. NR 204.06(6), Wis. Adm. Code.

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7 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Mercury Pollutant Minimization Program -Annual Mercury Progress Reports	January 31, 2020	10
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #2	January 31, 2021	10
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #3	January 31, 2022	10
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #4	January 31, 2023	10
Mercury Pollutant Minimization Program -Final Mercury Report	June 30, 2023	10
Mercury Pollutant Minimization Program -Annual Mercury Reports After Permit Expiration	See Permit	10
Compliance Maintenance Annual Reports (CMAR)	by June 30, each year	12
General Sludge Management Form 3400-48	prior to any significant sludge management changes	20
Characteristic Form 3400-49 and Lab Report	by January 31 following each year of analysis	20
Land Application Report Form 3400-55	by January 31, each year whether or not non-exceptional quality sludge is land applied	22
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied	22
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	11

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to:

Northern Region - Spooner, 810 W. Maple Street, Spooner, WI 54801-1255

Permit Fact Sheet

General Information

Permit Number:	WI-0020150-10-0	
Permittee Name:	CITY OF MERRILL	
Address:	1004 E. FIRST STREET	
City/State/Zip:	Merrill WI 54452	
Discharge Location:	2602 Sturdevant Street, Merrill, Wisconsin (NE¼ NW¼ of section 18; T31N-R7E)	
Receiving Water:	The Wisconsin River within the Prairie River Watershed in the Upper Wisconsin River Basin in Lincoln County.	
StreamFlow (Q _{7,10}):	846 cfs	
Stream Classification:	Fish and aquatic life, warm water sport fishery.	
Wild Rice Impacts:	No impacts identified. Wild rice has been confirmed downstream of Merrill, but distribution of wild rice beds is difficult to characterize. • The waste meets NR 105.04 Wis. Adm. Code • The wastewater permit has been in existence over a long period • The effluent volumes are low in comparison to receiving water.	
Design Flow(s)	Daily Maximum	4.87 MGD (using design flow worksheet and 2015 ONR)
	Weekly Maximum	4.35 MGD (using design flow worksheet and 2015 ONR)
	Monthly Maximum	3.6 MGD (Peak condition of Primary clarifiers, see 2015 ONR)
	Annual Average	3.06 MGD (from 2015 ONR)
Significant Industrial Loading?	Three contributors are regulated under the DNR Pretreatment Program and Merrill City Ordinance: Northern Wire, Mitchell Metal, and Merrill Manufacturing.	
Operator at Proper Grade?	Yes	
Approved Pretreatment Program?	A POTW pretreatment program is not required for facilities with less 5.0 MGD design flow.	

Facility Description

The City of Merrill wastewater treatment facility serves a population of approximately 9,700 with three metal finishing industrial contributors. The annual average design flow is 3,060,000 gallons per day with actual flows averaging 1,220,000 gallons per day over the past five years (June 2013 – June 2018). The facility is an activated sludge facility which consists of mechanical screening (removes debris) with barscreen backup and grit removal via an aerated grit chamber. It includes three primary clarifiers where solids are allowed to settle. Flow then enters two aeration tanks (air added) where it mixes with activated sludge which breaks down the organic matter. Activated sludge is composed of settled solids containing naturally occurring bacteria recycled from the treatment system. The water is then pumped into two final clarifiers where remaining solids are settled out. Alum is added following primary clarification to facilitate the precipitation of phosphorus. Some of the sludge is returned to the head of the aeration tanks to re-seed the new wastewater entering the tank while the rest of the sludge is sent to waste. The settled solids (sludge) from the system that is not used as activated sludge is removed, thickened, and treated by bacteria and organisms through anaerobic digestion; reducing harmful pathogens to safe levels. Water is removed from the sludge via a belt press before it is landspread on Department approved agricultural sites. The treated wastewater (effluent) is seasonally disinfected (May through

September) by chlorination then dechlorinated with sodium bisulfite wastewater and caustic soda is added for pH adjustment. The treated effluent is discharged to the Wisconsin River.

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
INFLUENT 701	An average of 1.220 MGD (June 2013 – June 2018 data)	Representative samples shall be collected from the aerated channel after screening for grit removal prior to the primary clarifiers.
EFFLUENT 001	Flow is not a required parameter. With a mechanical plant influent flow equals effluent flow.	Representative samples shall be collected downstream of final clarification prior to the chlorine contact tank except for samples for pH, fecal coliform, chlorine residual, and WET testing which shall be collected after the last treatment unit.
SLUDGE - CAKE 002	Landspreading amounts range from 68 to 1,377 tons per year (2013 – 2017 data) An estimated 175 dry tons are generated annually. (information provided by application)	Samples shall be collected at a point and in a manner which will yield sample results representative of the sludge being tested and collected at a time which is appropriate for the specific test.
SLUDGE – PRIMARY 003	Sludge is removed once every 5-6 years with an estimated total of 18 dry tons (3 tons per year generated annually). (information provided by application)	Samples shall be collected prior to land application of the primary digester sludge for List 1, 2, 3 and 4. Department notification is required prior to landspreading.
SLUDGE – SECONDARY 004	Sludge is removed once every 5-6 years with an estimated total of 16 dry tons (2.5 tons per year generated annually). (information provided by application)	Samples shall be collected prior to land application of the secondary digester sludge for List 1, 2, 3 and 4. Department notification is required prior to landspreading.
IN-PLANT 101	For In-plant mercury sampling.	At least one field blank shall be collected for each day a sample of mercury is collected from Outfall 001. The purpose of the field blank is to determine whether the field or sample transporting procedures and environment have contaminated the sample.

Substantial Compliance Determination

	Compliance?	Comments
Discharge limits	Yes	Avg. characteristics from Jun 2014-May 2018 are: Flow 1.23 MGD CBOD₅ 5.3 mg/L TSS 11 mg/L TP 0.8 mg/L Hg 2.95 ng/L Zn 68 mg/L Chlorine res. <100 ug/L Fecal coliform 34 #FC/100 ml (Geo Mean) WET 5 passing@ 1 TUa (1 failure 08/26/2014 likely due to Ammonia which was 22.8 mg/L @ pH of 7.61 & ee.77 mg/L @ pH of 7.52) There were minor permit exceedances of monthly avg of TP in Nov 2014, Oct 2015, & Feb 2016. All monthly TP exceedances were less than 1.1 mg/L. Similarly, there were minor chlorine residual exceedances of the daily max on August 14th & 28th 2014 and May 12th & 15th 2015. The maximum chlorine residue was 219 ug/L. There was one weekly average TSS exceedance in Nov. 2014 during the second week. All exceedances were appropriately corrected. Because of the WET failure, it's understood, they'll likely have a WET limit in this upcoming permit reissuance.
Sampling/testing requirements	Yes	
Groundwater standards	N/A	
Reporting requirements	Yes	
Compliance schedules	Yes	Facility has submitted annual status reports on Hg pollutant minimization program. A Hg variance will be necessary with continual focus on pollutant minimization.
Management plan	N/A	
Operator at proper grade	Yes	
Other		The facility removes phosphorus utilizing Alum chemical precipitation. Over the last three years, they full scale piloted biological phosphorus removal without total success. Currently, to improve, they are evaluating expanding the anoxic/anaerobic area, better isolating it and controlling extraneous DO from getting into it. They are also going to step aeration beyond this selector environment and making other operational changes such as in cutting back on RAS rates to further facilitate bio-p removal. This effort is viewed as a continuation of the current piloting effort. Also, the facility will be subject to the Wisconsin River TMDL

		currently under development which may ultimately result in more stringent phosphorus limits.
Current Plant Subclasses	A1. Suspended Growth Processes (Activated Sludge); B. Solids Separation (Clarifiers, membranes, filters, etc); C. Sludge Treatment (Aerobic /anaerobic digestion, thickening, dewatering, land application); P. Total Phosphorus Removal; D. Disinfection; L. On-Site Laboratory Testing; SS. Sanitary Sewage Collection System	
Enforcement considerations	None at this time.	
In substantial compliance?	Yes	
	Concurrence: Steve Ohm	Date: 08/29/2018

1 Influent - Proposed Monitoring

Sample Point Number: 701- INFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Continuous	Continuous	
BOD ₅ , Total		mg/L	5/Week	24-Hr Comp	
CBOD ₅		mg/L	5/Week	24-Hr Comp	
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See the "Mercury Monitoring" subsection for more information.
Hexachlorobenzene		ug/L	Quarterly	Grab	Quarterly sampling is required the first year (April 2019 through March 2020).

Changes from Previous Permit & Explanation of Limits and Monitoring Requirements:

The parameters are standard monitoring requirements and frequency for minor municipal facilities with a mechanical treatment plant. Tracking of BOD₅, and Suspended Solids are required for percent removal requirements found in s. NR 210.05, Wis. Adm. Code.

CBOD₅ - The permittee continues to receive a variance as provided in Wis. Adm. Code NR 210.07 (4) and (5) to replace BOD limits with CBOD limits. Monitoring for CBOD₅ satisfies the percent removal requirements of NR 210.05 Wis. Adm. Code, and monitoring for BOD₅ satisfies operational requirements for the Compliance Maintenance Annual Report (CMAR).

Mercury – Quarterly monitoring for total recoverable mercury has been retained in the permit influent section as required in ch. NR 106, Wis. Adm. Code. The sample type was updated from 24-Hr Flow Prop Comp to Grab.

Hexachlorobenzene – One sample was taken as part of the application process. The result was within 1/5th of the calculated limit. Compared to other municipal facilities, a detectable result is highly unusual and suspect. Quarterly sampling is required during the first year (April 2019 through March 2020). The data will be evaluated to see if a limitation is needed.

Zinc – Quarterly monitoring was required during the last permit term to assist in identifying when influent contributions occurred. The City worked with local industries to better control zinc discharged to their collection system and has been able to reduce levels well below (maximum of 113 ug/L) the calculated limit (340 ug/L). It has been determined monitoring is not required this permit term.

2 Inplant - Proposed Monitoring and Limitations

Sample Point Number: 101- EFFLUENT 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 the "Mercury Monitoring" subsection for more information.

Changes from Previous Permit & Explanation of Limits and Monitoring Requirements:

At least one field blank shall be collected for each day a sample of mercury is collected for each set of mercury samples, a set of samples may include any combination of influent, effluent, or other samples collected on the same day. The purpose of the field blank is to determine if the field or sample transporting procedures and environment have contaminated the sample. The sample type was updated from Grab to Blank.

3 Surface Water - Proposed Monitoring and Limitations

Sample Point Number: 001- EFFLUENT

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
CBOD5	Monthly Avg	25 mg/L	5/Week	24-Hr Flow Prop Comp	
CBOD5	Weekly Avg	40 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	30 mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Cal	Weekly Avg	45 mg/L	5/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	5/Week	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
pH Field	Daily Min	6.0 su	5/Week	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	5/Week	24-Hr Flow Prop Comp	
Chlorine, Total Residual	Daily Max	38 ug/L	5/Week	Grab	Limit and monitoring effective May through September.
Chlorine, Total Residual	Monthly Avg	38 ug/L	5/Week	Grab	Limit and monitoring effective May through September.
Chlorine, Total Residual	Weekly Avg	38 ug/L	5/Week	Grab	Limit and monitoring effective May through September.
Fecal Coliform	Geometric Mean - Monthly	400 #/100 ml	Weekly	Grab	Limit and monitoring effective May through September.
Fecal Coliform	Geometric Mean - Wkly	656 #/100 ml	Weekly	Grab	Limit and monitoring effective May through September.
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	
Mercury, Total Recoverable	Daily Max	9.85 ng/L	Quarterly	Grab	This is an interim limit. See the "Mercury Variance" subsection for more information.
Hexachlorobenzene		ug/L	Quarterly	Grab	Quarterly sampling is required the first year (April 2019 through March 2020).
Acute WET	Daily Max	1.0 TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annual acute WET testing is required. See the schedule found in the "WET Testing" subsection.

Changes from Previous Permit & Explanation of Limits and Monitoring Requirements:

The monitoring frequency and limits for **CBOD5**, **Suspended Solids** and **pH** have not changed from the previous permit term. All categorical limits are based on NR 104.02 and NR 210 (Subchapter II) Wis. Adm. Code. More information on

Calculating limits for these parameters as well as **Ammonia, Phosphorus, Chlorine, Fecal Coliform, Mercury, Hexachlorobenzene, and WET Testing** can be found in the “Water Quality-Based Effluent Limitations for the City of Merrill Wastewater Treatment Facility (WI-0020150)” memo dated March 12, 2018.

Phosphorus – Phosphorus requirements are based on the Phosphorus Rules that became effective 12/1/2010 as detailed in NR 102 Water Quality Standards and NR 217 Effluent Standards and Limitations for Phosphorus. Chapter NR 217 of the Wis. Adm. Code addresses point source dischargers of phosphorus to surface waters. Currently in NR 217 Wis. Adm. Code there are two methods used to determine if a phosphorus limit is needed: a technology based effluent limit (TBEL) and a water quality based effluent limit (WQBEL). A TBEL of 1 mg/L is appropriate because the facility discharges more than the threshold of 150 pounds per month. Based on the size and classification of the Wisconsin River, the WQBEL is 11.4 mg/L. The TBEL is more protective than the WQBEL therefore remains in effect this permit term.

Phosphorus TMDL Under Development: A Total Maximum Daily Load (TMDL) is being developed for the Wisconsin River to address phosphorus water quality impairments within the TMDL area. This TMDL will likely result in limitations for phosphorus that must be included in WPDES permits, which may be different than those calculated for this permit reissuance. TMDL-derived limits may be included in lieu of or in addition to the calculated limits upon permit reissuance or modification once the TMDL has been approved by U.S. EPA, according to s. NR 217.16, Wis. Adm. Code.

Chlorine and Fecal Coliform – Regulatory changes to s. NR 205.065, Wis. Adm. Code, became effective September 1, 2016. The rule requires limits in this permit to be expressed as weekly average and monthly average limits whenever practicable. These changes are based on 40 CFR 122.45(d). In order to comply with this regulation, Chlorine weekly and monthly average limits and fecal coliform weekly geometric mean have been included.

Total Nitrogen Series (NO₂+NO₃, TKN and Total N) - Based on the “Guidance for Total Nitrogen Monitoring in WPDES Permits” dated October 2012, quarterly effluent monitoring for Total Nitrogen is required for municipal majors discharging to the Mississippi River Basin.

Mercury – At the main plant, a monthly average limit set equal to the wildlife criteria for mercury (1.3 ng/L), is required at the facility. The Merrill Wastewater Treatment Facility has requested a renewal of the variance to the mercury limit. An alternative mercury effluent limitation under s. 106.145, Wisconsin Administrative Code represents a variance to water quality standards authorized by s. 283.15, Wis. Stats. This request has been granted and the permit continues to include an 9.85 ng/L daily maximum limit. The variance limitation is consistent with the 1-day P99 and is a reduction from the previous variance limitation of 15 ng/L daily maximum limit. The facility examined the current mercury sources and there are indications that dental offices are the primary source due to the use of amalgam. The City has passed an ordinance requiring dental offices to implement Best Management Practices

The granting of this variance to the City of Merrill Wastewater Treatment Facility shall apply only to the 5-year permit term of the proposed WPDES permit. The permittee shall continue to implement a mercury pollutant minimization program with the addition of permit required submittal of annual reports.

Hexachlorobenzene – One sample was taken as part of the application process. The result was within 1/5th of the calculated limit. Compared to other municipal facilities, a detectable result is highly unusual and suspect. Quarterly sampling is required during the first year (April 2019 through March 2020). The data will be evaluated to see if a limitation is needed.

WET Testing – Based on historical WET test data and reasonable potential factor (RPF) calculations (NR 106.08 and NR 106.09 Wis. Adm. Code), an Acute WET limit of 1 TUa is required this permit term. The instream waste concentration (IWC) is very low, therefore, chronic WET testing is not required as part of the reissued permit. A WET Checklist was prepared to determine the number of WET test that are needed. As toxicity potential increases, more points accumulate, and more monitoring is required to assure toxicity is not occurring. For facilities categorized as majors, annual WET tests are required. Based on the total points accumulated and Chapter 1.3 of the WET Guidance Document more frequent testing is not needed.

WET testing schedule is:

- 2019 – Fourth quarter (October 1st – December 31st)

- 2020 – Third quarter (July 1st – September 30th)
- 2021 – Second quarter (April 1st – June 30th)
- 2022 – First quarter (January 1st – March 31st)
- 2023 – Third quarter (July 1st – September 30th)

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the second year of this permit.

Zinc – Quarterly monitoring was required during the last permit term to assist in identifying when influent contributions occurred. The City worked with local industries to better control zinc discharged to their collection system and has been able to reduce levels well below (maximum of 113 ug/L) the calculated limit (340 ug/L). It has been determined monitoring is not required this permit term.

Ammonia – As part of the 2013 Water Quality Based Effluent Limit memo the ammonia limit was calculated using current acute and chronic ammonia toxicity criteria found in Tables 2C and 4B of NR 105 Wis. Adm. Code and limit calculating procedures (Subchapter IV of 106, Wis. Adm. Code) (see below). Ammonia limitations weren't calculated for this permit term because there have been no changes to the surface water.

	Summer	Winter
Daily Maximum	40 mg/L	40 mg/L
Weekly Average	730 mg/L	545 mg/L
Monthly Average	380 mg/L	285 mg/L

Effluent ammonia limits are not needed this permit term because the mean effluent ammonia concentration is 1.72 mg/L.

4 Land Application - Proposed 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	Cake	Anaerobic Digestion	Volatile Solids Reduction	Land Apply	A maximum of 1,377 tons per year.
003	B	Liquid	Anaerobic Digestion	Volatile Solids Reduction	Land Apply	Sludge is removed once every 5-6 years with an estimated total of 18 dry tons.
004	B	Liquid	Anaerobic Digestion	Volatile Solids Reduction	Land Apply	Sludge is removed once every 5-6 years with an estimated total of 16 dry tons.
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? No, the highest result in the most recent monitoring data was 0.509 pCi/liter (2017).						
If yes, special monitoring and recycling conditions will be included in the permit to track any potential problems in landapplying sludge from this facility						

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)
Is a priority pollutant scan required? Yes, one sample is required as part of the application process per NR 200.65 Wis. Adm. Code.						
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.						

Sample Point Number: 002- ANAEROBIC SLUDGE; 003- PRIMARY DIGESTER, and 004- SECONDARY DIGESTER

Monitoring Requirements and Limitations

Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Annual	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Annual	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Annual	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Annual	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Annual	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Annual	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Annual	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Composite	
Nitrogen, Total Kjeldahl		Percent	Annual	Composite	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Annual	Composite	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Phosphorus, Total		Percent	Annual	Composite	
Phosphorus, Water Extractable		% of Tot P	Annual	Composite	
Potassium, Total Recoverable		Percent	Annual	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	

Changes from Previous Permit & Explanation of Limits and Monitoring Requirements:

The requirements for land application of municipal sludge are determined in accordance with NR 204 Wis. Adm. Code. At sample point 002, monitoring one-time for PCBs in the sludge is required in 2020.

Every five to six years, the primary (003) and secondary (004) sludge digester are emptied and cleaned out. Prior to land application of either digester sludge, monitoring is required for List 1, 2, 3 and 4. The Department shall be notified prior to land application so characteristic forms can be generated and sent to the facility to complete. PCB monitoring is not required for outfalls 003 and 004 because the sludge sampled at all three sample points is from the same waste stream, but from different locations in the treatment process, the PCB result from only 002 is adequate.

Water Extractable Phosphorus - Water extractable phosphorus (WEP) is the coefficient for determining plant available phosphorus from measured total phosphorus. In Wisconsin, the Penn State Method is utilized and is expressed in percent. While a total P may be significant, the WEP may show that only a small percentage of the P is available to plants because of factors such as treatment processes and chemical addition that "tie-up" phosphorus limiting the amount of phosphorus that is plant available. As part of the Wisconsin's nutrient management plan (NMP) requirements, the accounting of all fertilizers must be included over the NMP cycle. The fertilizer value of the waste needs to be communicated to the farmer and accounted for in the NMP.

5 Schedules

5.1 Mercury Pollutant Minimization Program

The permittee shall implement or continue to implement a pollutant minimization program as defined in s. NR 106.145(7), Wis. Adm. Code.

Required Action	Due Date
Annual Mercury Progress Reports: Submit an annual mercury progress report. The annual mercury progress report shall: Indicate which mercury pollutant minimization activities or activities outlined in the approved Pollutant Minimization Plan have been implemented; Include an analysis of trends in quarterly and annual total effluent mercury concentrations based on mercury sampling; and Include an analysis of how influent and effluent mercury varies with time and with significant	01/31/2020

loading of mercury such as loads from industries into the collection system.	
The first annual mercury progress report is to be submitted by the Due Date.	
Annual Mercury Progress Report #2: Submit a mercury progress report as defined above.	01/31/2021
Annual Mercury Progress Report #3: Submit a mercury progress report as defined above.	01/31/2022
Annual Mercury Progress Report #4: Submit a mercury progress report as defined above.	01/31/2023
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, pollutant minimization activities from the approved pollutant minimization plan were not pursued and why. The report shall include an analysis of trends in quarterly and annual total effluent mercury concentrations based on mercury sampling during the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury such as loads from industries into the collection system. 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 plan outlining the pollutant minimization activities proposed for the upcoming permit term shall be submitted along with the final report.	06/30/2023
Annual Mercury Reports After Permit Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual mercury reports each year covering pollutant minimization activities implemented and mercury concentration trends.	

Explanation of Compliance Schedules

Mercury Pollutant Minimization Program - The facility is required to continue implementation of a Mercury Pollution Minimization Plan (PMP) meeting the requirements of s. 106.145(7) as requirement for a variance approval.

Attachments:

Water Flow Schematic(s)

"Water Quality-Based Effluent Limitations for the City of Merrill Wastewater Treatment Facility (WI-0020150)" memo dated March 12, 2018

Proposed Expiration Date:

March 31, 2024

Justification Of Any Waivers From Permit Application Requirements

N/A – A major facility, all required samples were taken.

Prepared By:

Sheri A. Snowbank **Wastewater Specialist**

Date: September 5, 2018

cc: Steve Ohm, Rhinelander

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTICE OF FINAL DETERMINATION TO REISSUE A WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0020150-10-0

Permittee: CITY OF MERRILL, 1004 E. FIRST STREET, Merrill, WI, 54452

Facility Where Discharge Occurs: Merrill City of , 2606 STURDEVANT STREET, MERRILL, WISCONSIN

Receiving Water And Location: The Wisconsin River within the Prairie River Watershed in the Upper Wisconsin River Basin in Lincoln County.

Brief Facility Description: The City of Merrill wastewater treatment facility serves the community domestic and industrial contributors. The facility is an activated sludge facility. Alum is added following primary clarification to facilitate the precipitation of phosphorus. The sludge from the system that is not used as activated sludge is removed, thickened, and treated by anaerobic digestion. Effluent is seasonal disinfected (May through September) by chlorination then dechlorinated prior to discharged to the Wisconsin River.

Permit Drafter's Name, Address and Phone: Sheri A. Snowbank, DNR, 810 Maple Street, , Spooner, WI, 54801, (715) 635-4131

Basin Engineer's Name, Address, and Phone: Austin Griesbach, 107 Sutliff Avenue, , Rhinelander, WI 54501, () -

Date Permit Signed/Issued: March 11, 2019

Date of Effectiveness: April 1, 2019

Date of Expiration: March 31, 2024

Public Informational Hearing Held On: January 8, 2019

Following the public informational hearing the Department has made a final determination to reissue the WPDES permit for the above-named permittee for this existing discharge. The permit application information from the WPDES permit file, comments received on the proposed permit and applicable Wis. Adm. Codes were used as a basis for this final determination.

The Department has the authority to issue, modify, suspend, revoke and reissue or terminate WPDES permits and to establish effluent limitations and permit conditions under ch. 283, Stats.

Following is a summary of significant comments and any significant changes which have been made in the terms and conditions set forth in the draft permit:

Comments Received from the Applicant, Individuals or Groups and Any Permit Changes as Applicable

No comments received.

Comments Received from EPA or Other Government Agencies and Any Permit Changes as Applicable

The EPA submitted a comment on December 27, 2018.

EPA Comment: As stated in Section II.G of the Facility Specific Mercury Variance Data Sheet, mercury concentrations in Merrill's effluent averaged 3.12 ng/L under the previous WPDES permit with a projected 99th percentile of 9.85 ng/L. Based on documentation submitted to EPA in support of other mercury variances, Superior's effluent mercury concentrations are among the highest for municipal wastewater treatment plants in Wisconsin. Even after removing two high values in the dataset, Merrill's average effluent mercury concentration is higher than that for approximately 90% of other municipal wastewater treatment plants in Wisconsin. Most other municipal wastewater treatment plants in Wisconsin have achieved long-term average mercury concentrations less than 2 ng/L. While EPA commends the mercury reduction efforts Merrill has already completed, EPA recommends that Merrill assess what factors contribute to its higher effluent mercury concentrations relative to its peers and what steps Merrill could take to address those factors. Some municipal wastewater treatment plants in Wisconsin have conducted mercury testing at various locations within the sewershed (e.g., lift stations) to identify potential sources. Such testing may be useful if Merrill does not currently know what factors contribute to its higher effluent mercury concentrations relative to its peers.

Department Response: It is difficult to identify all of the factors contributing to a higher average mercury level. Atmospheric deposition and legacy deposits in the collection system are felt to be the leading contributors.

The PMP has been updated to include more detail about steps that will be taken if potential sources can be found. "We will be implementing various sampling locations to determine if there are any potential sources of mercury that could be pinpointed. Any point sources that could be determined/discovered would be worked with to eliminate or reduce mercury."

As provided by s. 283.63, Stats., and ch. 203, Wis. Adm. Code, persons desiring further adjudicative review of this final determination may request a public adjudicatory hearing. A request shall be made by filing a verified petition

for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was signed (see permit signature date above). Further information regarding the conduct and nature of public adjudicatory hearings may be found by reviewing ch. NR 203, Wis. Adm. Code, s. 283.63 Stats., and other applicable law, including s. 227.42, Stats.

Information on file for this permit action may be inspected and copied at either the above named permit drafter's address or the above named basin engineer's address, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit action may also be obtained by calling the permit drafter at (715) 635-4131 or by writing to the Department. Reasonable costs (15 cents per page for copies and 7 cents per page for scanning) will be charged for copies of information in the file other than the public notice and fact sheet. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

MAR 07 2019

WQ-16J

Mr. James Zellmer, Deputy Administrator
Division of Environmental Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707-7921

Dear Mr. Zellmer:

Thank you for your letter received March 4, 2019, submitting Wisconsin's variance from the water quality standard for mercury for the Merrill Wastewater Treatment Facility, WPDES Permit No. WI-0020150-10-0, to the U.S. Environmental Protection Agency for review under Section 303(c) of the Clean Water Act (CWA). This action would grant the Merrill Wastewater Treatment Facility a variance from Wisconsin's wildlife (1.3 ng/L) and human threshold criteria (1.5 ng/L), which would establish a variance-based effluent limit of 9.85 ng/L, expressed as a daily maximum, for Merrill Wastewater Treatment Facility's discharge to the Wisconsin River in Lincoln County, Wisconsin.

Consistent with Section 303(c) of the CWA and federal regulations at 40 CFR 131.21, EPA is required to review and approve state water quality standards. EPA has reviewed the information submitted in support of the variance and hereby approves that variance, pursuant to Section 303(c) of the CWA and federal regulations at 40 CFR 131.21.

As required by Section 7 of the Endangered Species Act and federal regulations at 50 CFR Part 402, EPA evaluated whether approval of this variance would affect federally-listed threatened or endangered species or designated critical habitat. As described in the biological evaluation, EPA determined that the action may affect, but is not likely to adversely affect, one or more listed aquatic, aquatic-dependent or wetland species. Further, EPA determined that the action will not destroy or adversely modify designated critical habitat. EPA has initiated but not completed consultation with U.S. Fish and Wildlife Service.

If your staff have any questions regarding this approval, please contact Kathleen Mayo of my staff at (312) 353-5592 or mayo.kathleen@epa.gov.

Sincerely,

for 
Joan Tanaka
Acting Director, Water Division

cc: Sheri Snowbank, WDNR (electronic)
Laura Dietrich, WDNR (electronic)
Peter Fasbender, USFWS (electronic)