The WPDES Clean Water Permit for the Superior Sewage Disposal System Wastewater Treatment Plants

Clean Water - Every Day

Our Shared Responsibility

Wisconsin Department of Natural Resources
WPDES PERMIT

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

SUPERIOR SEWAGE DISPOSAL SYSTEM

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility located at
MAIN PLANT AND CSTP 2: 51 EAST 1ST STREET
CSTP 5: 61ST STREET AND BIRCH AVENUE
CSTP 6: TEXAS AVENUE AND 17TH STREET
to
MAIN PLANT: SUPERIOR BAY OF LAKE SUPERIOR
CSTP 2: A SLIP EMPTYING INTO SUPERIOR BAY
CSTP 5: THE NEMADJI RIVER
CSTP 6: ST. LOUIS BAY OF LAKE SUPERIOR

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 Balk
Wastewater Field Supervisor - NOR

March 29, 2019
Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - April 01, 2019
EXPIRATION DATE - March 31, 2024
TABLE OF CONTENTS

1 INFLUENT REQUIREMENTS
   1.1 SAMPLING POINT(S)
   1.2 MONITORING REQUIREMENTS
      1.2.1 Sampling Point 701 - INFLUENT MAIN PLANT
      1.2.2 Sampling Point 702 - INFLUENT CSTP 2
      1.2.3 Sampling Point 705 - INFLUENT CSTP 5 and 706 - INFLUENT CSTP 6

2 COMBINED SEWER OVERFLOW INVENTORY AND REQUIREMENTS
   2.1 CSO LONG TERM CONTROL PLAN
      2.1.1 Inventory of Overflow Locations within the Combined Sewer Districts

3 TIER 2 INDUSTRIAL STORMWATER REQUIREMENTS
   3.1 STORMWATER SOURCE AREAS
   3.2 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
      3.2.1 Purpose of SWPPP
      3.2.2 Required SWPPP Content
      3.2.3 Incorporation of Other Plans by Reference
   3.3 MONITORING REQUIREMENTS
      3.3.1 Purpose
   3.4 EVALUATION OF NON-STORM WATER DISCHARGES
   3.5 STORMWATER RECORDS RETENTION

4 IN-PLANT REQUIREMENTS
   4.1 SAMPLING POINT(S)
   4.2 MONITORING REQUIREMENTS AND LIMITATIONS
      4.2.1 Sampling Point 101 - Mercury field blank

5 SURFACE WATER REQUIREMENTS
   5.1 SAMPLING POINT(S)
   5.2 MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS
      5.2.1 Sampling Point (Outfall) 001 - EFFLUENT MAIN PLANT
      5.2.2 Sampling Point (Outfall) 002 - EFFLUENT CSTP 2
      5.2.3 Sampling Point (Outfall) 003 - EFFLUENT CSTP 5 and 004 - EFFLUENT CSTP 6

6 LAND APPLICATION REQUIREMENTS
   6.1 SAMPLING POINT(S)
   6.2 MONITORING REQUIREMENTS AND LIMITATIONS
      6.2.1 Sampling Point (Outfall) 006 - Belt-Pressed Cake Sludge

7 SCHEDULES
   7.1 UPDATED LONG TERM CONTROL PLAN (LTCP)
   7.2 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
   7.3 MERCURY POLLUTANT MINIMIZATION PROGRAM

8 STANDARD REQUIREMENTS
   8.1 REPORTING AND MONITORING REQUIREMENTS
      8.1.1 Monitoring Results
      8.1.2 Sampling and Testing Procedures
      8.1.3 Pretreatment Sampling Requirements
      8.1.4 Recording of Results
      8.1.5 Reporting of Monitoring Results
      8.1.6 Compliance Maintenance Annual Reports
      8.1.7 Records Retention
8.1.8 Other Information
8.1.9 Reporting Requirements—Alterations or Additions
8.2 SYSTEM OPERATING REQUIREMENTS
8.2.1 Noncompliance Reporting
8.2.2 Flow Meters
8.2.3 Raw Grit and Screenings
8.2.4 Sludge Management
8.2.5 Prohibited Wastes
8.2.6 Bypass
8.2.7 Scheduled Bypass
8.2.8 Controlled Diversions
8.2.9 Proper Operation and Maintenance
8.2.10 Operator Certification
8.3 SEWAGE COLLECTION SYSTEMS
8.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows
8.3.2 Capacity, Management, Operation and Maintenance (CMOM) Program
8.3.3 Sewer Cleaning Debris and Materials
8.4 SURFACE WATER REQUIREMENTS
8.4.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit
8.4.2 Appropriate Formulas for Effluent Calculations
8.4.3 Effluent Temperature Requirements
8.4.4 Visible Foam or Floating Solids
8.4.5 Surface Water Uses and Criteria
8.4.6 Percent Removal
8.4.7 Fecal Coliforms
8.4.8 Year Round Disinfection
8.4.9 Whole Effluent Toxicity (WET) Monitoring Requirements
8.4.10 Whole Effluent Toxicity (WET) Identification and Reduction
8.4.11 Reopener Clause
8.5 PRETREATMENT PROGRAM REQUIREMENTS
8.5.1 Inventories
8.5.2 Regulation of Industrial Users
8.5.3 Annual Pretreatment Program Report
8.5.4 Pretreatment Program Modifications
8.5.5 Program Resources
8.6 LAND APPLICATION REQUIREMENTS
8.6.1 Sludge Management Program Standards And Requirements Based Upon Federally Promulgated Regulations
8.6.2 General Sludge Management Information
8.6.3 Sludge Samples
8.6.4 Land Application Characteristic Report
8.6.5 Calculation of Water Extractable Phosphorus
8.6.6 Monitoring and Calculating PCB Concentrations in Sludge
8.6.7 Annual Land Application Report
8.6.8 Other Methods of Disposal or Distribution Report
8.6.9 Approval to Land Apply
8.6.10 Soil Analysis Requirements
8.6.11 Land Application Site Evaluation
8.6.12 Landfilling of Sludge
8.6.13 Sludge Landfilling Reports
9 SUMMARY OF REPORTS DUE
1 Influent Requirements

1.1 Sampling Point(s)

<table>
<thead>
<tr>
<th>Sampling Point Designation</th>
<th>Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>701 MAIN PLANT:</td>
<td>Representative samples shall be taken immediately downstream of the aerated grit chamber.</td>
</tr>
<tr>
<td>702 COMBINED SEWER</td>
<td>TREATMENT PLANT 2: When flow is present through the CSTP 2 Screen Building representative samples</td>
</tr>
<tr>
<td></td>
<td>shall be taken immediately downstream of the automatic bar screens. When flow is not present</td>
</tr>
<tr>
<td></td>
<td>in the CSTP 2 Screen Building, but there is significant flow to the basin via the main WWTP</td>
</tr>
<tr>
<td></td>
<td>pumps representative sample results from the main WWTP influent shall be used.</td>
</tr>
<tr>
<td>705 COMBINED SEWER</td>
<td>TREATMENT PLANT 5: Representative samples shall be taken just upstream from the Parshall flume</td>
</tr>
<tr>
<td></td>
<td>in the drum screen room.</td>
</tr>
<tr>
<td>706 COMBINED SEWER</td>
<td>TREATMENT PLANT 6: Representative samples shall be taken just upstream from the Parshall flume</td>
</tr>
<tr>
<td></td>
<td>in the drum screen room.</td>
</tr>
</tbody>
</table>

1.2 Monitoring Requirements

The permittee shall comply with the following monitoring requirements.

1.2.1 Sampling Point 701 - INFLUENT MAIN PLANT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate</td>
<td></td>
<td>MGD</td>
<td>Continuous</td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td>BODs, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBODs</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic, Total</td>
<td>µg/L</td>
<td>Quarterly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromium, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc, Total</td>
<td>µg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WPDES Permit No. WI-0025593-09-0
SUPERIOR SEWAGE DISPOSAL SYSTEM

### 1.2.1.1 Total Metals Analyses
Measurements of total metals and total recoverable metals shall be considered as equivalent.

### 1.2.1.2 Sample Analysis
Samples shall be analyzed using a method which provides adequate sensitivity so that results can be quantified, unless it is not possible using the most sensitive approved method.

### 1.2.1.3 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.

### 1.2.2 Sampling Point 702 - INFLUENT CSTP 2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD₅, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 1.2.2.1 Sampling Requirements
A minimum of one 24-hour composite sample shall be taken for each 24 hours of continuous discharge. For discharges lasting less than 24 hours, one composite sample must be taken during the hours of discharge. To clarify distinctive sampling periods, the date a sampling period begins shall be the date used to populate the electronic discharge monitoring report.

### 1.2.3 Sampling Point 705 - INFLUENT CSTP 5 and 706 - INFLUENT CSTP 6

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate</td>
<td>MGD</td>
<td>Continuous</td>
<td>Continuous</td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td>BOD₅, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.2.3.1 Sampling Requirements
A minimum of one 24-hour composite sample shall be taken for each 24 hours of continuous discharge. For discharges lasting less than 24 hours, one composite sample must be taken during the hours of discharge. To clarify distinctive sampling periods, the date a sampling period begins shall be the date used to populate the electronic discharge monitoring report.

2 Combined Sewer Overflow Inventory and Requirements
During the permit period, discharges from the sewer overflows listed below shall be limited and monitored by the permittee according to the following conditions:

2.1 CSO Long Term Control Plan
The Permittee shall implement and comply with the CSO Long Term Control Plan (LTCP) dated 4/1/2014 for the purpose of assuring CSO discharges do not cause or contribute to water quality standard exceedances. The LTCP conforms to the “Demonstration” Approach under Section II.C. of USEPA’s “Combined Sewer Overflow (CSO) Control Policy” (“CSO Policy”), issued April 19, 1994 and addresses the nine required LTCP elements discussed in sections II.C.1 through II.C.9 of the CSO Policy.

The facility shall submit an updated LTCP during the second and fourth year of the permit term, see section 7.1 herein.

2.1.1 Inventory of Overflow Locations within the Combined Sewer Districts

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSO#5</td>
<td>61st Street and Birch Avenue</td>
<td>Emergency overflow located in the screw pump structure. Emergency spillway located on the East berm.</td>
</tr>
<tr>
<td>CSO#6</td>
<td>Texas Avenue</td>
<td>Emergency overflow located in the screw pump structure (Short-term overflow that will be blocked after the spillway is vegetated). Emergency spillway located on the West berm.</td>
</tr>
<tr>
<td>CSO#2</td>
<td>51 East 1st Street</td>
<td>Emergency spillway located on the North berm.</td>
</tr>
</tbody>
</table>

3 Tier 2 Industrial Stormwater Requirements

3.1 Stormwater Source Areas
- The Main Plant campus (including CSTP 2), limited to property owned or managed by the City
- CSTP 5 and CSTP 6, limited to property owned or managed by the City

3.2 Stormwater Pollution Prevention Plan (SWPPP)
The permittee shall continue to implement a Stormwater Pollution Prevention Plan (SWPPP) for the facility. An updated SWPPP shall be submitted as specified in the Schedule Section 7.2 found herein.
3.2.1 Purpose of SWPPP
The SWPPP prepared by the permittee has: 1) identified the sources of storm water and non-storm water contamination to the storm water drainage system; 2) identified and prescribed appropriate “source area control” type best management practices (BMP) designed to prevent storm water contamination from occurring; 3) identify and prescribed “storm water treatment” type best management practices to reduce pollutants in contaminated storm water prior to discharge; 4) prescribed actions needed either to bring non-storm water discharges under an appropriate WPDES permit or to remove these discharges from the storm drainage system; 5) prescribe an implementation schedule so as to ensure that the storm water management actions prescribed in the SWPPP are carried out in a timely manner and evaluated on a regular basis.

3.2.2 Required SWPPP Content
The SWPPP shall conform to the requirements specified in s. NR 216.27(3), Wis. Adm. Code.

3.2.3 Incorporation of Other Plans by Reference
When plans are developed or activities are conducted in accordance with other federal, state, or local regulatory approvals that meet the requirements of ch. NR 216, Wis. Adm. Code, these plans may be incorporated into the SWPPP by reference to avoid unnecessary duplication of regulatory requirements.

3.2.3.1 SWPPP Amendments
The permittee shall amend the SWPPP within 30 days of the occurrence of the following circumstances:

- When expansion, production increases, process modifications, changes in material handling or storage, or other activities are planned which will result in significant increases in the exposure of pollutants to storm water discharged either to waters of the state or to storm water treatment devices. The amendment shall contain a description of the new activities that contribute to the increased pollutant loading, planned source control activities that will be used to control pollutant loads, an estimate of the new or increased discharge of pollutants following treatment, and when appropriate, a description of the effect of the new or increased discharge on existing storm water treatment facilities.

- The comprehensive annual facility site compliance inspection, quarterly visual inspection of storm water quality, or other means reveals that the provisions of the SWPPP are ineffective in controlling storm water pollutants discharged to waters of the state.

- Upon written notice that the Department finds the SWPPP to be ineffective in achieving the conditions of this permit.

3.3 Monitoring Requirements

3.3.1 Purpose
Monitoring includes site inspections and non-storm water discharge assessments. The purpose of monitoring is to evaluate storm water outfalls for the presence of non-storm water discharges; and evaluate the effectiveness of the permittee’s pollution prevention activities in controlling contamination of storm water discharges.

3.4 Evaluation of Non-Storm Water Discharges
The permittee shall evaluate storm water outfalls for non-storm water contributions to the storm drainage system for the duration of the permit. Any monitoring shall be representative of non-stormwater discharges from the facility.
Evaluations shall take place during dry periods, and may include either end of pipe screening or detailed testing of the storm sewer collection system.

Either of the following monitoring procedures is acceptable:
- A detailed testing of the storm sewer collection system may be performed. Acceptable testing methods include dye testing, smoke testing, or video camera observation.
- End of pipe screening shall consist of visual observations made at least twice per year at each outfall of the storm sewer collection system. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be recorded.

Results of the non-storm water evaluations shall include: date of testing, test method, outfall location, testing results, and potential significant sources of non-storm water discovered through testing. The permittee shall maintain completed non-stormwater discharge evaluation reports on-site with the SWPPP and make them available to the Department upon request.

If the permittee identifies an unauthorized discharge of pollutants, the permittee shall immediately take action to cease the discharge and shall contact the department to determine if WPDES permit authorization is required.

3.4.1.1 Evaluation of Storm Water Discharges
The permittee shall continue to evaluate storm water outfalls for storm water contributions to the storm drainage system. Any monitoring shall be representative of the storm water discharges from the facility.

3.4.1.2 Annual Facility Site Compliance Inspection
The permittee shall perform and document the results of the Annual Facility Site Compliance Inspections (AFSCI). The inspections shall be adequate to verify that the site drainage conditions and potential pollution sources identified in the SWPPP remain accurate, and that the best management practices prescribed in the SWPPP are being implemented, properly operated and adequately maintained. Information reported shall include: the inspection date, inspection personnel, scope of the inspection, major observations, and revisions needed in the SWPPP. The permittee shall maintain completed AFSCI inspection reports on-site with the SWPPP and make them available to the Department upon request.

3.4.1.3 Quarterly Visual Inspections
The permittee shall perform and document quarterly visual inspections of storm water discharge quality at each storm water discharge outfall. Inspections shall be conducted within the first 30 minutes of discharge or as soon thereafter as practical, but not exceeding 60 minutes. The inspections shall include any observations of color, odor, turbidity, floating solids, foam, oil sheen, or other obvious indicators of storm water pollution. Information reported shall include the inspection date, inspection personnel, visual quality of the storm water discharge, and probable sources of any observed storm water contamination. The permittee shall maintain copies of completed quarterly inspection reports on-site with the SWPPP and make them available to the Department upon request.

3.5 Stormwater Records Retention
Pursuant to ss. NR 216.29(7), Wis. Adm. Code, all stormwater records (e.g. inspection reports, sampling results, etc.) shall be retained for 5 years beyond the date that record was made and shall be made available to the department upon request.
4 In-Plant Requirements

4.1 Sampling Point(s)

<table>
<thead>
<tr>
<th>Sampling Point Number</th>
<th>Sampling Point Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>This is the field blank sample and it shall be collected using standard sample handling procedures</td>
</tr>
</tbody>
</table>

4.2 Monitoring Requirements and Limitations

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

4.2.1 Sampling Point 101 - Mercury field blank

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury, Total</td>
<td></td>
<td>ng/L</td>
<td>Quarterly</td>
<td>Blank</td>
<td></td>
</tr>
</tbody>
</table>

4.2.1.1 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.
5 Surface Water Requirements

5.1 Sampling Point(s)

<table>
<thead>
<tr>
<th>Sampling Point Designation</th>
<th>Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001 MAIN PLANT:</td>
<td>Representative samples shall be collected immediately following disinfection. The permittee is authorized to discharge to Superior Bay within the Lake Superior drainage basin. The average annual design flow for the facility is 7.6 MGD.</td>
</tr>
<tr>
<td>002 COMBINED SEWER TREATMENT PLANT 2:</td>
<td>Representative samples shall be collected after chlorination and dechlorination on the discharge line leading to the slip. The permittee is authorized to discharge to Superior Bay within the Lake Superior drainage basin.</td>
</tr>
<tr>
<td>003 COMBINED SEWER TREATMENT PLANT 5:</td>
<td>Representative samples shall be collected in the effluent discharge pipe prior to discharge. The permittee is authorized to discharge to the Nemadji River within the Lake Superior drainage basin.</td>
</tr>
<tr>
<td>004 COMBINED SEWER TREATMENT PLANT 6:</td>
<td>Representative samples shall be collected in the effluent discharge pipe prior to discharge. The permittee is authorized to discharge to St. Louis Bay within the Lake Superior drainage basin.</td>
</tr>
</tbody>
</table>

5.2 Monitoring Requirements and Effluent Limitations

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

5.2.1 Sampling Point (Outfall) 001 - EFFLUENT MAIN PLANT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBOD₅</td>
<td>Monthly Avg</td>
<td>25 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>CBOD₅</td>
<td>Weekly Avg</td>
<td>40 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>Monthly Avg</td>
<td>30 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>Weekly Avg</td>
<td>45 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>pH Field</td>
<td>Daily Max</td>
<td>9.0 su</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>pH Field</td>
<td>Daily Min</td>
<td>6.0 su</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Total</td>
<td>Monthly Avg</td>
<td>0.7 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Monthly Avg</td>
<td>39 mg/L</td>
<td>Weekly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Weekly Avg</td>
<td>39 mg/L</td>
<td>Weekly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Daily Max - Variable</td>
<td>mg/L</td>
<td>Weekly</td>
<td>24-Hr Comp</td>
<td>See the &quot;Ammonia Limitation&quot; subsection for more information.</td>
</tr>
</tbody>
</table>
### Monitoring Requirements and Effluent Limitations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen, Ammonia</td>
<td>Variable Limit</td>
<td>mg/L</td>
<td>Weekly</td>
<td>24-Hr Comp</td>
<td>See the &quot;Ammonia Limitation&quot; subsection for more information.</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>Geometric Mean</td>
<td>400 #/100 ml</td>
<td>2/Week</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>Geometric Mean</td>
<td>780 #/100 ml</td>
<td>2/Week</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>E. coli</td>
<td>Geometric Mean</td>
<td>#/100 ml</td>
<td>2/Week</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Arsenic, Total</td>
<td>µg/L</td>
<td></td>
<td>Quarterly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Cadmium, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Chromium, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Copper, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Cyanide, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Lead, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Nickel, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Zinc, Total</td>
<td>µg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Hardness, Total as CaCO₃</td>
<td>mg/L</td>
<td></td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td>This is an interim limit. See the &quot;Mercury Variance&quot; subsection for more information.</td>
</tr>
<tr>
<td>Mercury, Total</td>
<td>Daily Max</td>
<td>13 ng/L</td>
<td>Quarterly</td>
<td>Grab</td>
<td>See the &quot;Mercury Variance&quot; subsection for more information.</td>
</tr>
<tr>
<td>Acute WET</td>
<td>TUs</td>
<td></td>
<td>See Listed Qtr(s)</td>
<td>24-Hr Comp</td>
<td>See the &quot;Whole Effluent Toxicity (WET) Testing&quot; subsection for more information.</td>
</tr>
<tr>
<td>Chronic WET</td>
<td>Monthly Avg</td>
<td>11 rTUs</td>
<td>See Listed Qtr(s)</td>
<td>24-Hr Comp</td>
<td>See the &quot;Whole Effluent Toxicity (WET) Testing&quot; subsection for more information.</td>
</tr>
</tbody>
</table>

#### 5.2.1.1 Sample Analysis

Samples shall be analyzed using a method which provided adequate sensitivity so that results can be quantified, unless not possible using the most sensitive approved method.

#### 5.2.1.2 Total Metals Analyses

Measurements of total metals and total recoverable metals shall be considered as equivalent.
5.2.1.3 Total Phosphorus Limits and Potential Modeling Results

This facility is within the limits of the St. Louis River Lake Superior Bay TMDL boundaries. Depending on the final report, this permit may be modified or reissued in the future to include a more restrictive limit or mass limits for phosphorus.

5.2.1.4 Ammonia Limitation

Sample results for pH shall be used to calculate the variable limit (see the Variable Limits table at the end of this section). When possible total ammonia (NH3-N) sampling shall occur on the same day pH levels are monitored. Report the applicable variable limit on the electronic Discharge Monitoring Report (eDMR) in the Ammonia Variable Limit column.

<table>
<thead>
<tr>
<th>Variable Limits Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily maximum ammonia limits based on Effluent pH</strong></td>
</tr>
<tr>
<td>Effluent pH (s.u.)</td>
</tr>
<tr>
<td>pH ≤ 7.1</td>
</tr>
<tr>
<td>7.1 ≤ pH ≤ 7.2</td>
</tr>
<tr>
<td>7.2 ≤ pH ≤ 7.3</td>
</tr>
<tr>
<td>7.3 ≤ pH ≤ 7.4</td>
</tr>
<tr>
<td>7.4 ≤ pH ≤ 7.5</td>
</tr>
<tr>
<td>7.5 ≤ pH ≤ 7.6</td>
</tr>
<tr>
<td>7.6 ≤ pH ≤ 7.7</td>
</tr>
</tbody>
</table>

5.2.1.5 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
- Mercury collection and recycling
- Educational outreach

Dental Facilities
- Inspections of BMPs – including operating amalgam separators, maintain records, capturing and recycling all amalgam.

Schools
- Presentations and tours of school groups
- Mercury collection and recycling

Industries
• Sampling effluent and enforcement of local pretreatment limits

General
• Collection of mercury bulbs
• Thermostat exchange
• Florescent bulb collection
• Website and displays identifying collection sites and instructions
• Tours including elected officials, school groups and public groups
Continuation of the CMOM program
• Cleaning and repairing collection system

5.2.1.6 Whole Effluent Toxicity (WET) Testing

Primary Control Water: A grab sample from Superior Bay

Instream Waste Concentration (IWC): 9.1%

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.
• Chronic: 100, 30, 10, 3, 1% and any additional selected by the permittee.

WET Testing Frequency:
Acute and Chronic 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 - 2nd quarter (April – June)
• 2020 - 3rd quarter (July – September)
• 2021 - 4th quarter (October - December)
• 2022 - 1st quarter (January – March)
• 2023 - 2nd quarter (April – June)

Acute and Chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required July 1st through September 30th, 2024.

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 (TUₘₐₓ) is greater than 1. The TUₘₐₓ shall be calculated as follows: TUₘₐₓ = 100 ÷ LC₅₀. A chronic toxicity test shall be considered positive if the Toxic Unit - Chronic (TUₜ) is greater than 11 for either species. The TUₜ shall be calculated as follows: TUₜ = 100 ÷ IC₂₅.

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).

### 5.2.2 Sampling Point (Outfall) 002 - EFFLUENT CSTP 2

**Monitoring Requirements and Effluent Limitations**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate</td>
<td></td>
<td>MGD</td>
<td>Continuous</td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td>BOD₅, Total</td>
<td>Monthly Avg</td>
<td>30 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>BOD₅, Total</td>
<td>Weekly Avg</td>
<td>45 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>Monthly Avg</td>
<td>60 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Total</td>
<td>Monthly Avg</td>
<td>1.0 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>Geometric Mean - Monthly</td>
<td>400 #/100 ml</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>Geometric Mean - Wkly</td>
<td>972 #/100 ml</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>E. coli</td>
<td></td>
<td>#/100 ml</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Chlorine, Total Residual</td>
<td>Daily Max</td>
<td>38 μg/L</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Chlorine, Total Residual</td>
<td>Monthly Avg</td>
<td>38 μg/L</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Chlorine, Total Residual</td>
<td>Weekly Avg</td>
<td>38 μg/L</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td></td>
<td>mg/L</td>
<td>Monthly</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Monthly Avg</td>
<td>39 mg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td>See the &quot;Ammonia Limitation&quot; subsection for more information.</td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Weekly Avg</td>
<td>39 mg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td>See the &quot;Ammonia Limitation&quot; subsection for more information.</td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH₃-N) Total</td>
<td>Daily Max - Variable</td>
<td>mg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td>See the &quot;Whole Effluent Toxicity (WET) Testing&quot; subsection for more information.</td>
</tr>
<tr>
<td>Nitrogen, Ammonia Variable Limit</td>
<td></td>
<td>mg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Acute WET</td>
<td>Monthly Avg</td>
<td>1.0 TUₜ</td>
<td>Annual</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
</tbody>
</table>

**5.2.2.1 Sampling Requirements**

Sampling is required only during discharge events. A minimum of one 24-hour sample shall be taken for each 24 hours of continuous discharge. For discharges lasting less than 24 hours, one composite sample shall be taken during the hours of discharge. To clarify distinctive sampling periods, the date a sampling period begins shall be the date used to populate the electronic discharge monitoring report.
5.2.2.2 Ammonia Limitation

Sample results for pH shall be used to calculate the variable limit (see the Variable Limits table at the end of this section). When possible total ammonia (NH3-N) sampling shall occur on the same day pH levels are monitored. Report the applicable variable limit on the electronic Discharge Monitoring Report (eDMR) in the Ammonia Variable Limit column.

<table>
<thead>
<tr>
<th>Effluent pH (s.u.)</th>
<th>Limit (mg/L)</th>
<th>Effluent pH (s.u.)</th>
<th>Limit (mg/L)</th>
<th>Effluent pH (s.u.)</th>
<th>Limit (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH ≤ 7.1</td>
<td>&gt;39</td>
<td>7.1 &lt; pH ≤ 7.2</td>
<td>39</td>
<td>7.2 &lt; pH ≤ 7.3</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.3 &lt; pH ≤ 7.4</td>
<td>31</td>
<td>7.4 &lt; pH ≤ 7.5</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.5 &lt; pH ≤ 7.6</td>
<td>23</td>
<td>7.6 &lt; pH ≤ 7.7</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.7 &lt; pH ≤ 7.8</td>
<td>16</td>
<td>7.8 &lt; pH ≤ 7.9</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.9 &lt; pH ≤ 8.0</td>
<td>11</td>
<td>8.0 &lt; pH ≤ 8.1</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.1 &lt; pH ≤ 8.2</td>
<td>7.6</td>
<td>8.2 &lt; pH ≤ 8.3</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.3 &lt; pH ≤ 8.4</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2.2.3 Whole Effluent Toxicity (WET) Testing

Primary Control Water: A grab sample from Superior Bay

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: Three Acute WET tests shall be conducted during the permit period. The WET testing protocol for CSTP 2 found in the document “Acute Whole Effluent Toxicity Testing at CSTP 2, CSTP 5 and CSTP 6” developed as a requirement in WPDES Permit No. WI-0025593-06 shall be followed. Any additional WET testing performed by the facility shall be reported to the Department. Any year that WET testing is not performed shall also be indicated in the General Remarks section of the electronic Discharge Monitoring Report – short form and submitted.

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET testing protocol.

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 (TUₜₐ) is greater than 1.0 for either species. The TUₜₐ shall be calculated as follows: \[ TUₜₐ = 100 + LC_{50} \].

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).

### 5.2.3 Sampling Point (Outfall) 003 - EFFLUENT CSTP 5 and 004 - EFFLUENT CSTP 6

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD$_3$, Total</td>
<td>Monthly Avg</td>
<td>30 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>BOD$_5$, Total</td>
<td>Weekly Avg</td>
<td>45 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>Suspended Solids, Total</td>
<td>Weekly Avg</td>
<td>65 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td></td>
</tr>
<tr>
<td>pH Field</td>
<td>Daily Max</td>
<td>9.0 su</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>pH Field</td>
<td>Daily Min</td>
<td>6.0 su</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Total</td>
<td>Monthly Avg</td>
<td>1.0 mg/L</td>
<td>Daily</td>
<td>24-Hr Comp</td>
<td>Monitoring is required May through September.</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>#/100 ml</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. coli</td>
<td>#/100 ml</td>
<td>Daily</td>
<td>Grab</td>
<td></td>
<td>Monitoring is required May through September.</td>
</tr>
<tr>
<td>Nitrogen, Ammonia (NH$_3$-N) Total</td>
<td>mg/L</td>
<td>Monthly</td>
<td>24-Hr Comp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5.2.3.1 Sampling Requirements

Sampling is required only during discharge events. A minimum of one 24-hour sample shall be taken for each 24 hours of continuous discharge. For discharges lasting less than 24 hours, one composite sample shall be taken during the hours of discharge. To clarify distinctive sampling periods, the date a sampling period begins shall be the date used to populate the electronic discharge monitoring report.
6 Land Application Requirements

6.1 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.

<table>
<thead>
<tr>
<th>Sampling Point Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</td>
</tr>
<tr>
<td>006</td>
</tr>
</tbody>
</table>

6.2 Monitoring Requirements and Limitations

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

6.2.1 Sampling Point (Outfall) 006 - Belt-Pressed Cake Sludge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB Total Dry Wt</td>
<td></td>
<td>mg/kg</td>
<td>Once</td>
<td>Composite</td>
<td></td>
</tr>
</tbody>
</table>

6.2.1.1 Sludge Analysis for PCBs

The permittee shall analyze the sludge for Total PCBs one time during 2022 calendar year. The 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 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.
7 Schedules

7.1 Updated Long Term Control Plan (LTCP)

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Submit update #1:</strong> Provide a summary of the number of plan/program related actions and activities conducted during the period. Include the status of implementation of the plan, related plans, and programs, including the status of meeting plan/program actions, and corrective actions for identified deficiencies.</td>
<td>01/31/2021</td>
</tr>
<tr>
<td><strong>Submit update #2:</strong> Continue to provide the information outlined in Update #1.</td>
<td>01/31/2023</td>
</tr>
</tbody>
</table>

7.2 Stormwater Pollution Prevention Plan (SWPPP)

The SWPPP shall include the Main Plant campus (including CSTP2, CSTP 5, and CSTP 6) limited to property owned or managed by the City.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Submit and updated SWPPP:</strong> The permittee shall submit an updated SWPPP to the Department. The plan shall conform with requirements found in NR 216.27(3) Wis. Adm. Code.</td>
<td>04/01/2020</td>
</tr>
</tbody>
</table>

7.3 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.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Mercury Progress Reports:</strong> Submit an annual mercury progress report. The annual mercury progress report shall:</td>
<td>01/31/2020</td>
</tr>
<tr>
<td>Indicate which mercury pollutant minimization activities or activities outlined in the approved Pollutant Minimization Plan have been implemented;</td>
<td></td>
</tr>
<tr>
<td>Include an analysis of trends in monthly and annual total effluent mercury concentrations based on mercury sampling; and</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>Annual Mercury Progress Report #2:</strong> Submit a mercury progress report as defined above.</td>
<td>01/31/2021</td>
</tr>
<tr>
<td><strong>Annual Mercury Progress Report #3:</strong> Submit a mercury progress report as defined above.</td>
<td>01/31/2022</td>
</tr>
<tr>
<td><strong>Annual Mercury Progress Report #4:</strong> Submit a mercury progress report as defined above.</td>
<td>01/31/2023</td>
</tr>
<tr>
<td><strong>Final Mercury Report:</strong> 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 monthly and annual total effluent mercury concentrations.</td>
<td>06/30/2023</td>
</tr>
</tbody>
</table>
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.

**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.
8 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).

8.1 Reporting and Monitoring Requirements

8.1.1 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.

8.1.2 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.

8.1.3 Pretreatment Sampling Requirements

Sampling for pretreatment parameters (cadmium, chromium, copper, lead, nickel, zinc, and mercury) shall be done during a day each month when industrial discharges are occurring at normal to maximum levels. The sampling of the influent and effluent for these parameters shall be coordinated. All 24 hour composite samples shall be flow proportional.

8.1.4 Recording of Results

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

8.1.6 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.

8.1.7 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.
8.1.8 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.

8.1.9 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.

8.2 System Operating Requirements

8.2.1 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.
8.2.2 Flow Meters
Flow meters shall be calibrated annually, as per s. NR 218.06, Wis. Adm. Code.

8.2.3 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.

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

8.2.5 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.

8.2.6 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.

8.2.7 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.

8.2.8 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.

8.2.9 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.

8.2.10 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).

8.3 Sewage Collection Systems

8.3.1 Sanitary Sewage Overflows and Sewage Treatment Facility Overflows
8.3.1.1 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.

8.3.1.2 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.

8.3.1.3 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.
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.

8.3.1.4 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.

8.3.2 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.

8.3.3 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.
8.4 Surface Water Requirements

8.4.1 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.

8.4.2 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.

8.4.3 Effluent Temperature Requirements

**Weekly Average Temperature** – The permittee shall use the following formula for calculating effluent results to determine compliance with the weekly average temperature limit (as applicable): Weekly Average Temperature = the sum of all daily maximum results for that week divided by the number of daily maximum results during that time period.

**Cold Shock Standard** – Water temperatures of the discharge shall be controlled in a manner as to protect fish and aquatic life uses from the deleterious effects of cold shock. ‘Cold Shock’ means exposure of aquatic organisms to a rapid decrease in temperature and a sustained exposure to low temperature that induces abnormal behavior or physiological performance and may lead to death.

**Rate of Temperature Change Standard** – Temperature of a water of the state or discharge to a water of the state may not be artificially raised or lowered at such a rate that it causes detrimental health or reproductive effects to fish or aquatic life of the water of the state.
8.4.4 Visible Foam or Floating Solids
There shall be no discharge of floating solids or visible foam in other than trace amounts.

8.4.5 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:

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

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.

8.4.6 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.

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

8.4.8 Year Round Disinfection
Disinfection shall be provided year round. Monitoring requirements and the limitation for fecal coliforms apply during the period in which disinfection is required. Whenever chlorine is used for disinfection or other effluent uses, the limitations and monitoring requirements for residual chlorine shall apply. A dechlorination process shall be in operation whenever chlorine is used for disinfection or other effluent uses.

8.4.9 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.

8.4.10 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.

8.4.11 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.

8.5 Pretreatment Program Requirements
The permittee is required to operate an industrial pretreatment program as described in the program initially approved by the Department of Natural Resources including any subsequent program modifications approved by the Department, and including commitments to program implementation activities provided in the permittee's annual pretreatment program report, and that complies with the requirements set forth in 40 CFR Part 403 and ch. NR 211, Wis. Adm. Code. To ensure that the program is operated in accordance with these requirements, the following general conditions and requirements are hereby established:

8.5.1 Inventories
The permittee shall implement methods to maintain a current inventory of the general character and volume of wastewater that industrial users discharge to the treatment works and shall provide an updated industrial user listing annually and report any changes in the listing to the Department by March 31 of each year as part of the annual pretreatment program report required herein.

8.5.2 Regulation of Industrial Users
8.5.2.1 Limitations for Industrial Users:
The permittee shall develop, maintain, enforce and revise as necessary local limits to implement the general and specific prohibitions of the state and federal General Pretreatment Regulations.

8.5.2.2 Control Documents for Industrial Users (IUs)
The permittee shall control the discharge from each significant industrial user through individual discharge permits as required by s. NR 211.235, Wis. Adm. Code and in accordance with the approved pretreatment program procedures and the permittee's sewer use ordinance. The discharge permits shall be modified in a timely manner during the stated term of the discharge permits according to the sewer use ordinance as conditions warrant. The discharge permits shall include at a minimum the elements found in s. NR 211.235(1), Wis. Adm. Code and references to the approved pretreatment program procedures and the sewer use ordinance.

8.5.2.3 Review of Industrial User Reports, Inspections and Compliance Monitoring
The permittee shall require the submission of, receive, and review self-monitoring reports and other notices from industrial users in accordance with the approved pretreatment program procedures. The permittee shall randomly sample and analyze industrial user discharges and conduct surveillance activities to determine independent of information supplied by the industrial users, whether the industrial users are in compliance with pretreatment standards and requirements. The inspections and monitoring shall also be conducted to maintain accurate knowledge of local industrial processes, including changes in the discharge, pretreatment equipment operation, spill prevention control plans, slug control plans, and implementation of solvent management plans.

The permittee shall inspect and sample the discharge from each significant industrial user as specified in the permittee's approved pretreatment program or as specified in NR 211.235(3). The permittee shall evaluate whether industrial users identified as significant need a slug control plan according to the requirements of NR 211.235(4). If a slug control plan is needed, the plan shall contain at a minimum the elements specified in s. NR 211.235(4)(b), Wis. Adm. Code.

8.5.2.4 Enforcement and Industrial User Compliance Evaluation & Violation Reports
The permittee shall enforce the industrial pretreatment requirements including the industrial user discharge limitations of the permittee's sewer use ordinance. The permittee shall investigate instances of noncompliance by collecting and analyzing samples and collecting other information with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Investigation and response to instances of noncompliance shall be in accordance with the permittee's sewer use ordinance and approved Enforcement Response Plan.

The permittee shall make a semiannual report on forms provided or approved by the Department. The semiannual report shall include an analysis of industrial user significant noncompliance (i.e. the Industrial User Compliance Evaluation, also known as the SNC Analysis) as outlined in s.NR 211.23(1)(j), Wis. Adm. Code, and a summary of the permittee's response to all industrial noncompliance (i.e. the Industrial User Violation Report). The Industrial User Compliance Evaluation Report shall include monitoring results received from industrial users pursuant to s. NR 211.15(1)-(5), Wis. Adm. Code. The Industrial User Violation Report shall include copies of all notices of noncompliance, notices of violation and other enforcement correspondence sent by the permittee to industrial users, together with the industrial user's response. The Industrial User Compliance Evaluation and Violation Reports for the period January through June shall be provided to the Department by September 30 of each year and for the period July through December shall be provided to the Department by March 31 of the succeeding year, unless alternate submittal dates are approved.

8.5.2.5 Publication of Violations
The permittee shall publish a list of industrial users that have significantly violated the municipal sewer use ordinance during the calendar year, in the largest daily newspaper in the area by March 31 of the following year pursuant to s.
NR 211.23(1)(j), Wis. Adm. Code. A copy of the newspaper publication shall be provided as part of the annual pretreatment report specified herein.

8.5.2.6 Multijurisdictional Agreements

The permittee shall establish agreements with all contributing jurisdictions as necessary to ensure compliance with pretreatment standards and requirements by all industrial users discharging to the permittee's wastewater treatment system. Any such agreement shall identify who will be responsible for maintaining the industrial user inventory, issuance of industrial user control mechanisms, inspections and sampling, pretreatment program implementation, and enforcement.

8.5.3 Annual Pretreatment Program Report

The permittee shall evaluate the pretreatment program, and submit the Pretreatment Program Report to the Department on forms provided or approved by the Department by March 31 annually, unless an alternate submittal date is approved. The report shall include a brief summary of the work performed during the preceding calendar year, including the numbers of discharge permits issued and in effect, pollution prevention activities, number of inspections and monitoring surveys conducted, budget and personnel assigned to the program, a general discussion of program progress in meeting the objectives of the permittee's pretreatment program together with summary comments and recommendations.

8.5.4 Pretreatment Program Modifications

- Future Modifications: The permittee shall within one year of any revisions to federal or state General Pretreatment Regulations submit an application to the Department in duplicate to modify and update its approved pretreatment program to incorporate such regulatory changes as applicable to the permittee. Additionally, the Department or the permittee may request an application for program modification at any time where necessary to improve program effectiveness based on program experience to date.

- Modifications Subject to Department Approval: The permittee shall submit all proposed pretreatment program modifications to the Department for determination of significance and opportunity for comment in accordance with the requirements and conditions of s. NR 211.27, Wis. Adm. Code. Any substantial proposed program modification shall be subject to Department public noticing and formal approval prior to implementation. A substantial program modification includes, but is not limited to, changes in enabling legal authority to administer and enforce pretreatment conditions and requirements; significant changes in program administrative or operational procedures; significant reductions in monitoring frequencies; significant reductions in program resources including personnel commitments, equipment, and funding levels; changes (including any relaxation) in the local limitations for substances enforced and applied to users of the sewerage treatment works; changes in treatment works sludge disposal or management practices which impact the pretreatment program; or program modifications which increase pollutant loadings to the treatment works. The Department shall use the procedures outlined in s. NR 211.30, Wis. Adm. Code for review and approval/denial of proposed pretreatment program modifications. The permittee shall comply with local public participation requirements when implementing the pretreatment program.

8.5.5 Program Resources

The permittee shall have sufficient resources and qualified personnel to carry out the pretreatment program responsibilities as listed in ss. NR 211.22 and NR 211.23, Wis. Adm. Code.

8.6 Land Application Requirements
8.6.1 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.

8.6.2 General Sludge Management Information

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

8.6.3 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.

8.6.4 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.

8.6.5 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:

\[
\text{Water Extractable Phosphorus} \times \text{Total Phosphorus} = \left( \frac{\text{Water Extractable Phosphorus (mg/kg, dry wt)}}{\text{Total Phosphorus (mg/kg, dry wt)}} \right) \times 100
\]

8.6.6 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  
  3660B - Sulfur Clean Up (using copper shot instead of powder)  
  3665A - Sulfuric Acid Clean Up

8.6.7 Annual Land Application Report

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.

8.6.8 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.

8.6.9 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.

8.6.10 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.

8.6.11 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.

8.6.12 Landfilling of Sludge
General: Sewage sludge may not be disposed of in a municipal solid waste landfill unless the landfill meets the requirements of chs. NR 500 to 536, Wis. Adm. Code, and is an approved facility as defined in s. 289.01(3), Wis. Stats. Any facility accepting sewage sludge shall be approved by the Department in writing to accept sewage sludge. Disposal of sewage sludge in a municipal solid waste landfill shall be in accordance with ss. NR 506.13 and 506.14. Sewage sludge may not be disposed of in a surface disposal unit as defined in s. NR 204.03(62).

Approval: The permittee shall obtain approval from the Department prior to the disposal of sludge at a Wisconsin licensed landfill.

8.6.13 Sludge Landfilling Reports
The permittee shall report the volume of sludge disposed of at any landfill facility on Form 3400-52. The permittee shall include the name and address of the landfill, the Department license number or other state's designation or license number for all landfills used during the report period and a letter of acceptability from the landfill owner. In addition, any permittee utilizing landfills as a disposal method shall submit to the Department any test results used to indicate acceptability of the sludge at a landfill. Form 3400-52 shall be submitted annually by January 31, each year whether or not sludge is landfilled.
## 9 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated Long Term Control Plan (LTCP) - Submit update #1</td>
<td>January 31, 2021</td>
<td>15</td>
</tr>
<tr>
<td>Updated Long Term Control Plan (LTCP) - Submit update #2</td>
<td>January 31, 2023</td>
<td>15</td>
</tr>
<tr>
<td>Stormwater Pollution Prevention Plan (SWPPP) - Submit and updated SWPPP</td>
<td>April 1, 2020</td>
<td>15</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Annual Mercury Progress Reports</td>
<td>January 31, 2020</td>
<td>15</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Annual Mercury Progress Report #2</td>
<td>January 31, 2021</td>
<td>15</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Annual Mercury Progress Report #3</td>
<td>January 31, 2022</td>
<td>15</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Annual Mercury Progress Report #4</td>
<td>January 31, 2023</td>
<td>15</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Final Mercury Report</td>
<td>June 30, 2023</td>
<td>16</td>
</tr>
<tr>
<td>Mercury Pollutant Minimization Program - Annual Mercury Reports After Permit Expiration</td>
<td>See Permit</td>
<td>16</td>
</tr>
<tr>
<td>Compliance Maintenance Annual Reports (CMAR)</td>
<td>by June 30, each year</td>
<td>18</td>
</tr>
<tr>
<td>Industrial User Compliance Evaluation and Violation Reports</td>
<td>Semiannual</td>
<td>27</td>
</tr>
<tr>
<td>Pretreatment Program Report</td>
<td>Annually</td>
<td>28</td>
</tr>
<tr>
<td>General Sludge Management Form 3400-48</td>
<td>prior to any significant sludge management changes</td>
<td>29</td>
</tr>
<tr>
<td>Characteristic Form 3400-49 and Lab Report</td>
<td>by January 31 following each year of analysis</td>
<td>29</td>
</tr>
<tr>
<td>Land Application Report Form 3400-55</td>
<td>by January 31, each year whether or not non-exceptional quality sludge is land applied</td>
<td>30</td>
</tr>
<tr>
<td>Other Methods of Disposal or Distribution Report Form 3400-52</td>
<td>by January 31, each year whether or not sludge is hauled, landfilled, incinerated, or exceptional quality sludge is distributed or land applied</td>
<td>30</td>
</tr>
</tbody>
</table>
Wastewater Discharge Monitoring Report

| 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 |