WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

Ahlstrom NA Specialty Solutions LLC

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility located at
600 Thilmany Road
to
the Lower Fox River (Fox River/Appleton Watershed – Lower Fox River Basin) in Outagamie County

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

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

State of Wisconsin Department of Natural Resources
For the Secretary

By _____
Nate Willis
Wastewater Section Manager

_____
Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE – January 1, 2026 **EXPIRATION DATE – December 31, 2030**

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1 Influent Requirements - Cooling Water Intake Structure (CWIS)

1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
701	SURFACE WATER INTAKE: Includes a bar screen, an elliptical pipe between the intake and the water treatment plant and travelling screens and intake pumps at the water treatment plan. The surface water intake structure withdraws water from the Lower Fox River and is located on the north bank of the Lower Fox River approximately 465 feet downriver from the Kaukauna City Hydro-electric Plant at latitude 44° 16' 47.1" and longitude 88° 15' 13.5".

1.2 Monitoring Requirements and BTA Determinations

The permittee shall comply with the following monitoring requirements.
The intake(s) has been reviewed for compliance with BTA (Best Technology Available) standards and the BTA determination(s) is listed below.

1.2.1 Sampling Point 701 - River Water Intake

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
Intake Water Used Exclusively For Cooling		% Flow	Daily	Continuous	
Mercury, Total Recoverable		ng/L	Quarterly	Grab	

1.2.1.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wis. Adm. 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.

1.2.1.2 CWIS - Authority to Operate and Description

The permittee shall at all times properly operate and maintain all water intake facilities. The permittee shall give advance notice to the Department of any planned changes in the location, design, operation, or capacity of the intake structure. The permittee is authorized to use the cooling water intake system which consists of the following:

- Location: North bank of the northern-most channel of the Lower Fox River approximately 465 feet downriver from the Kaukauna City Hydro-electric Plant at latitude 44°16’47.1” and longitude 88°15’13.5”. All of the water flowing in the channel passes through the Hydro-electric Plant.

- General Description: The intake consists of 14 feet wide (12-foot effective width) by 6 feet tall trash rack that runs flush with and parallel to the riverbank. The rack itself consists of vertical bars that are 3 inches deep by 3/8 inches wide in cross-section and centered every 3 ½ inches. The bars are set at a 45-degree angle to the face of the trash rack with the narrow face of the bar facing upstream. The trash rack is manually raked of debris.

  Water passing through the trash racks flows through a horizontal, elliptical concrete pipe for approximately 700 feet. The upstream opening of the elliptical pipe is 3.8 feet behind the trash rack at the pipe's center. The pipe is 78 inches wide by 48 inches tall, with a cross-sectional area of 18.85 square feet. The pipe runs at approximately a 45-degree angle from the bank, in line with the direction of the trash rack bars.
- At the end of the elliptical pipe, intake water passes through two traveling screens located in the Water Treatment Plant. Each traveling screen is 9.17 feet wide and consists of 14-gauge wire with a ¼ inch square mesh and an open area of 57.4 percent. The wetted depth of the screens at high water levels equals 7.25 feet. Pressure drop across the screens activates screen rotation and spray bar showers for cleaning. The screens are not equipped to return impinged aquatic organisms. The intake pumps are located at the water treatment plant.
- Major Components: Trash rack, traveling screens, seasonal reduction in flow (November through April)
- Maximum Design Intake Flow (DIF): 85.68 MGD
- Maximum Design Intake Velocity: 4.37 feet/second at the bar rack, 7.03 feet/second at the intake pipe.

1.2.1.3 Cooling Water Intake BTA (Best Technology Available) Determination

The Department conditionally approves the cooling water intake, as described above in subsection 1.2.1.2, as BTA for minimizing impingement mortality and entrainment in accordance with the requirements in section s. 283.31(6), Wis. Stats. This approval is conditional upon completion of the actions required in the Impingement Technology Performance Optimization Study schedule as soon as practicable, but no later than the dates outlined in the schedule section of this permit. If it is determined during the permit term that a compliance method other than "System of Technology" is necessary to comply with standards for impingement mortality, the department may modify or revoke and reissue this permit.

1.3 Cooling Water Intake Structure Standard Requirements

The following requirements and provisions apply to all water intake structures identified as sampling points in subsection 1.1.

1.3.1 Future BTA for Cooling Water Intake Structure

BTA determinations for entrainment and impingement mortality at cooling water intake structures will be made in each permit reissuance, in accordance with ch. NR 111, Wis. Adm. Code. **In subsequent permit reissuance applications, the permittee shall provide all the information required in s. NR 111.40, Wis. Adm. Code.**

Note: Based on flow conditions at the time of this permit reissuance, this includes ss. NR 111.41(1) through (7) and (13), Wis. Adm. Code.

Exemptions from some permit application requirements are possible in accordance with s. NR 111.42(1), Wis. Adm. Code, where information already submitted is sufficient. If an exemption is desired, a request for reduced application material requirements must be submitted at least 2 years and 6 months prior to permit expiration. Past submittals and previously conducted studies may satisfy some or all of the application material requirements.

1.3.2 Impingement Mortality Monitoring

Impingement mortality monitoring is required on a monthly basis July 2027 thru June 2029 per the Impingement Technology Performance Optimization Study schedule. This entails quantification and identification of all life stages of fish and shellfish, to the lowest taxon possible, that are impinged against the modified traveling screens per NR111.41(5), Wis. Adm. Code.

1.3.3 Visual or Remote Inspections

The permittee shall conduct a weekly visual inspection or employ a remote monitoring device during periods when the cooling water intake is in operation. The inspection frequency shall be weekly to ensure the intakes are maintained and operated to function as designed.

1.3.4 Reporting Requirements for Cooling Water Intake

The permittee shall adhere to the reporting requirements listed below.

1.3.4.1 Discharge Monitoring Reports (DMRs)

Report the results of the compliance monitoring for impingement mortality on the monthly DMR in the General Remarks section.

1.3.4.2 Annual Certification Statement and Report

Submit an annual certification statement signed by the authorized representative with information on the following, no later than January 31st for the previous year:

- Certification that water intake structure technologies are being maintained and operated as set forth in this permit, or a justification to allow a modification of the practices. Include a summary of the required Visual or Remote Inspections.
- If there are substantial modifications to the operation of any unit that impacts the cooling water withdrawals or operation of the water intake structure, provide a summary of those changes.
- If the information contained in the previous year's annual certification is still applicable, the certification may simply state as such.
- Monitoring results for impingement mortality.

1.3.5 Records Retention

Per 40 C.F.R. 125.97, the permittee must retain all records supporting the department's BTA determination for entrainment until such time the department revises the BTA determination for entrainment. The facility must also retain all records submitted as part of permit requirements during the permit term until the permit is either reissued or terminated.

1.3.6 Intake Screen Discharges and Removed Substances

Floating debris and accumulated trash collected on the cooling water intake trash rack shall be removed and disposed of in a manner to prevent any pollutant from the material from entering the waters of the State pursuant to s. NR 205.07 (3) (a), Wis. Adm. Code, except that backwashes may contain fine materials that originated from the intake water source such as sand, silt, small vegetation or aquatic life.

1.3.7 Endangered Species Act

Nothing in this permit authorizes take for the purpose of a facility's compliance with the Endangered Species Act.

2 In-Plant Requirements

2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
110	FIELD BLANK: In-plant Sampling Point 110 represents the mercury field blank that accompanies intake, influent and effluent sampling for mercury.

2.2 Monitoring Requirements and Limitations

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

2.2.1 Sampling Point 110 - MERCURY FIELD BLANK

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

2.2.1.1 Mercury Monitoring

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

3 Surface Water Requirements

3.1 Sampling Point(s)

The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
001	EFFLUENT: At Sampling Point 001, secondary treatment plant effluent shall be monitored prior to discharge to the Lower Fox River via Outfall 001. Sampling Point 001 consists of a Parshall flume east of the secondary clarifiers and a 24-hr flow-proportional composite sampler located in a sample building just up gradient from Outfall 001. Outfall 001 is located just off the northwest bank of the Lower Fox River approximately 3,360 feet downriver from the Kaukauna City Hydro-electric Plant at latitude 44° 17' 4.03" and longitude 88° 14' 43.7". Grab samples shall be collected from the sample building, flow is monitored at the discharge of the secondary clarifier.
012	LAGOON SEEPAGE: Outfall 012 represents the discharge of seepage from the pulp mill aerated lagoon to the Lower Fox River. The aerated lagoon is located on the northwest bank of the Lower Fox River just upriver from Outfall 001. Flow is assumed to be 0.01 MGD.
011	BOD5 AND PHOSPHORUS COMPLIANCE POINT: Sampling Point 011 represents the combined daily load from Outfalls 001 and 012 to the Lower Fox River of 5-day biochemical oxygen demand (BOD5) and Total Phosphorus. Since daily loads from Outfalls 001 and 012 are combined mathematically, no effluent sampling is required at Sampling Point 011.
014	WLA: Sampling Point 014 represents the application of wasteload allocated water quality related effluent limitations to the combined daily load of 5-day biochemical oxygen demand discharged from Outfalls 001 and 012 as represented by Sampling Point 011. Wasteload allocated water quality related effluent limitations for the combined daily load are effective May through October each year. No effluent sampling is required at Sampling Point 014.
003	EFFLUENT: At Sampling Point 003, No. 3 Turbine condenser noncontact cooling water and pulp mill noncontact cooling water shall be monitored after mixing, prior to discharge to the Lower Fox River via Outfall 003. It also receives overflow from clarifier #2 of the intake water treatment plant in cases of emergency. Sampling Point 003 consists of a rectangular weir located west of the intake water treatment plant and a standpipe just up gradient from Outfall 003. Outfall 003 is located on the northwest bank of the Lower Fox River approximately 1,100 feet downriver from the Kaukauna City Hydro-electric Plant at latitude 44° 16' 49.1" and longitude 88° 15' 5.9". Grab samples are collected at outfall 003 prior to discharge.

3.2 Monitoring Requirements and Effluent Limitations

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

3.2.1 Sampling Point (Outfall) 001 - SEC TREATMENT PLANT EFFL

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD_5, Total		mg/L	Daily	24-Hr Flow Prop Comp	Effective May 1 through October 31.

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
BOD_5, Total		mg/L	5/Week	24-Hr Flow Prop Comp	Effective November 1 through April 30.
BOD_5, Total		lbs/day	Daily	Calculated	Effective May 1 through October 31.
BOD_5, Total		lbs/day	5/Week	Calculated	Effective November 1 through April 30.
Suspended Solids, Total		mg/L	5/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Daily Max	10,077 lbs/day	5/Week	Calculated	
Suspended Solids, Total	Monthly Avg	4,497 lbs/day	5/Week	Calculated	
Temperature Maximum		deg F	Daily	Continuous	
Phosphorus, Total		mg/L	Weekly	24-Hr Flow Prop Comp	
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See permit for pollutant minimization measures and report submittal.
pH (Minimum)	Daily Min	4.0 su	Daily	Continuous	See Continuous pH Monitoring permit section for additional requirements.
pH (Maximum)	Daily Max	11.0 su	Daily	Continuous	See Continuous pH Monitoring permit section for additional requirements.
pH Exceedances Greater Than 60 Minutes	Monthly Total	0 Number	Daily	Continuous	See Continuous pH Monitoring permit section for additional requirements.
pH Total Exceedance Time Minutes	Monthly Total	446 minutes	Daily	Calculated	See Continuous pH Monitoring permit section for additional requirements.
Halogen, Total Residual as Cl2	Daily Max	38 µg/L	5/Week	24-Hr Flow Prop Comp	Monitoring and limits only required when chlorine or other halogens are used in the wastewater treatment system. See permit sections 3.2.1.7 and 5.3.6.
Halogen, Total Residual as Cl2	Monthly Avg	38 µg/L	5/Week	24-Hr Flow Prop Comp	Monitoring and limits only required when chlorine or other halogens are used in the wastewater treatment system. See permit sections 3.2.1.7 and 5.3.6.
Acute WET		TU_a	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Whole Effluent Toxicity (WET) Testing permit section.

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Chronic WET		TUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Whole Effluent Toxicity (WET) Testing permit section.
PFOS		ng/L	Monthly	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.
PFOA		ng/L	Monthly	Grab	Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.

3.2.1.1 Effluent Temperature Monitoring

For monitoring temperature continuously, collect measurements in accordance with s. NR 218.04(13), Wis. Adm. Code. This means that discrete measurements shall be recorded at intervals of not more than 15 minutes during the 24-hour period. In either case, report the maximum temperature measured during the day on the DMR.

3.2.1.2 Mercury Monitoring

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

3.2.1.3 Mercury – Implement Pollutant Minimization Program Plan

This permit contains monitoring for mercury following pervious permit terms that contained a variance for mercury approved in accordance with s. 283.15, Stats. As conditions of this permit the permittee shall continue to (a) maintain effluent quality at or below the current effluent concentrations, (b) continue to implement the mercury pollutant minimization plan and (c) perform the actions listed in the Mercury Pollutant Minimization Summary schedule.

3.2.1.4 Total Maximum Daily Load (TMDL) Limitations

Approved TMDL: The total maximum daily load (TMDL) and watershed management plan for total suspended solids (TSS) and total phosphorus (TP) in the Lower Fox River Basin was approved by the U.S. EPA on May 18, 2012. Wasteload allocations (WLAs) from the approved plan equal 1,243,210 pounds per year (lbs/yr) for TSS and 17,624 lbs/yr for TP. The wasteload allocation for TP will be applied at sampling point 011. These wasteload allocations are the sum of the wasteloads allocated to AIM Demolition (WPDES Permit No. WI-0000698, formerly NewPage Wisconsin Systems - Kimberly) and the permittee (formerly Thilmany LLC – Kaukauna).

3.2.1.5 TMDL Limitations for Total Suspended Solids

The approved TMDL TSS WLA for this permittee is 1,243,210 lbs/yr**,** and results in calculated TSS mass limits of 4,497 lbs/day as a monthly average and 10,077 lbs/day as a daily maximum. The 12-month rolling sum of total monthly TSS (lbs/yr) shall be reported each month for direct comparison to the facility's WLA.

3.2.1.6 Continuous pH Monitoring

The permittee shall maintain the pH of the discharge within the range of 5.0 to 9.0 standard units (s.u.) except excursions are permitted subject to the following conditions:

- The pH is monitored continuously;
- The total time during which the pH is outside the range of 5.0 to 9.0 s.u. shall not exceed 446 minutes in any calendar month;
- No individual pH excursion outside the range of 5.0 to 9.0 s.u. shall exceed 60 minutes in duration;
- No individual pH excursion shall be outside the range of 4.0 to 11.0 s.u.; and
- On a daily basis, the permittee shall report the minimum and maximum pH, the total time that the pH is outside the range of 5.0 to 9.0 s.u. and the number of pH excursions outside the range of 5.0 to 9.0 that exceed 60 minutes in duration.

3.2.1.7 Halogen, Total Residual as Chlorine

Acceptable test methods for determining Halogens, Total Residual as Cl2 are the same as those for measuring Chlorine, Total Residual. These methods are listed for Chlorine, Total Residual in chapter NR 219, Table B, Wisconsin Administrative Code. The preferred test methods are the Spectrophotometric, DPD; the Electrode; and the Back Titration with amperometric endpoint.

3.2.1.8 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Lower Fox River

Instream Waste Concentration (IWC): 13%

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 are required during the following quarters:

April 1 - June 30, 2026; October 1- December 31, 2026; January 1- March 31, 2027; July 1- September 30, 2027; April 1- June 30, 2028; October 1- December 31, 2028; January 1- March 31, 2029; July 1- September 30, 2029; April 1- June 30, 2030; and October 1- December 31, 2030.

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 April 1- June 30, 2031.

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

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

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species (fathead minnow (Pimephales promelas) and waterflea (Ceriodaphnia dubia)). The TU_a shall be calculated as follows: $TU_a = 100 \div LC_{50}$. A chronic toxicity test shall be considered positive if the Toxic Unit - Chronic (TU_c) is greater than 7.6 for either species. The TU_c shall be calculated as follows: $TU_c = 100 \div IC_{25}$.

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

3.2.1.9 PFOS/PFOA Sampling and Reporting Requirements

For grab samples, as defined per s. NR 218.04(10), Wis. Adm. Code, a single sample at a location as defined by the sample point description shall be taken during the time of the day most representative to capture all potential discharges. If extra equipment besides the sample bottle is used to collect the sample, it is recommended that a one-time equipment blank is collected with the first sample. An equipment blank would be collected by passing laboratory-verified PFAS-free water over or through field sampling equipment before the collection of a grab sample to evaluate potential contamination from the equipment used during sample.
If any equipment blanks are performed, these results shall be reported in the comments section of the eDMR and shall also documented in the reports submitted as part of the PFOS/PFOA Minimization Plan Determination of Need schedule of the permit.

3.2.1.10 PFOS/PFOA Minimization Plan Determination of Need

The permittee shall monitor PFOS and PFOA as specified in the table above and report on the effluent concentrations including trends in monthly and annual average PFOS and PFOA concentrations as specified in the PFOS/PFOA Minimization Plan Determination of Need Schedule.
If, after reviewing the data, the Department determines that a minimization plan for PFOS and PFOA is necessary based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department will notify the permittee in writing that a PFOS and PFOA minimization plan that satisfies the requirements in s. NR 106.99, Wis. Adm. Code, is required. The permittee shall submit an initial plan for Department approval no later than 90 days after written notification was sent from the Department in accordance with s. NR 106.985(2)(a), Wis. Adm. Code. Pursuant to s. NR 106.985(2)(b), Wis. Adm. Code, as soon as possible after Department approval of the PFOS and PFOA minimization plan, the Department will modify or revoke and reissue the permit in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to include the PFOS and PFOA minimization plan and other related terms and condition.
If, however, the Department determines that a PFOS and PFOA minimization plan is unnecessary based on the procedures in s. NR 106.98(4), Wis. Adm. Code, the Department shall notify the permittee that no further action is required. Per s. NR 106.98(3)(a), Wis. Adm. Code, the Department may reduce monitoring frequency to once every 3 months (quarterly) on a case-by-case basis, but only after at least 12 representative results have been generated. If the permittee requests a reduction in monitoring and the Department agrees a reduction would be appropriate, the permit may be modified in accordance with public notice procedures under ch. 283, Wis. Stats., and ch. NR 203, Wis. Adm. Code, to incorporate this change.

3.2.1.11 Use of Chlorophenolic-Containing Biocides

Pursuant to s. NR 284.12(2)(b), Wis. Code, the permittee shall certify in writing to the department at the end of this permit cycle that chlorophenolic-containing biocides are not used in facility operations. Should the permittee decide to use chlorophenolic-containing biocides during this permit term, this permit must be modified to include pentachlorophenol (PCP) and trichlorophenol (TCP) effluent limitations. Until PCP and TCP effluent limitations are included in the permit, use of chlorophenolic-containing biocides is prohibited. For information on the certification procedure, see the Schedules section of this permit.

3.2.1.12 Additives

The permittee shall maintain a record of the dosage rate of all additives used on a monthly basis. The additives may be changed during the term of the permit following procedures in the 'Additives' subsection of the Standard Requirements.

3.2.2 Sampling Point (Outfall) 012 - AERATED LAGOON SEEPAGE

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
BOD_5 Dissolved		mg/L	Monthly	Grab	
BOD_5 Dissolved		lbs/day	Monthly	Calculated	See permit section 3.2.2.1.
Phosphorus, Total		mg/L	Monthly	Grab	
Phosphorus, Total		lbs/day	Monthly	Calculated	See permit section 3.2.2.2.

3.2.2.1 BOD_5 Loading from Aerated Lagoon

On a monthly frequency, the permittee shall perform an analysis for dissolved 5-day biochemical oxygen demand (BOD_5) on a grab sample representative of the contents of the pulp mill aerated lagoon (i.e. the average concentration of an influent and effluent grab sample). The daily dissolved BOD_5 load (lbs/day) to the Fox River attributed to seepage from the aerated lagoon shall be calculated and reported for Sampling Point 012. The daily dissolved BOD_5 load shall be calculated by multiplying the results of the monthly analysis for soluble BOD_5 (mg/L) by the product of 8.34 times 0.01 million gallons per day (the daily seepage volume).

3.2.2.2 Phosphorus Loading from Aerated Lagoon

On a monthly frequency, the permittee shall perform an analysis for total phosphorus on a grab sample representative of the contents of the pulp mill aerated lagoon (i.e. the average concentration of an influent and effluent grab sample). The daily total phosphorus load shall be calculated by multiplying the results of the monthly analysis for total phosphorus (mg/L) by the product of 8.34 times 0.01 million gallons per day (the daily seepage volume).

3.2.3 Sampling Point (Outfall) 011 - 001 & 012 COMBINED LOAD

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Calculated	
BOD_5, Total	Daily Max	13,632 lbs/day	Daily	Calculated	TBEL. Effective May 1 through October 31.
BOD_5, Total	Monthly Avg	6,987 lbs/day	Daily	Calculated	TBEL. Effective May 1 through October 31.
BOD_5, Total	Daily Max	13,632 lbs/day	5/Week	Calculated	TBEL. Effective November 1 through April 30.
BOD_5, Total	Monthly Avg	6,987 lbs/day	5/Week	Calculated	TBEL. Effective November 1 through April 30.
Phosphorus, Total	Monthly Avg	0.8 mg/L	Weekly	Calculated	This is an interim MDV limit. See the MDV/Phosphorus permit sections and phosphorus schedules.

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Phosphorus, Total		lbs/month	Monthly	Calculated	Report the total monthly phosphorus discharged in lbs/month on the last day of the month on the DMR. See Standard Requirements for 'Appropriate Formulas' to calculate the Total Monthly Discharge in lbs/month.
Phosphorus, Total		lbs/yr	Annual	Calculated	Report the sum of the total monthly discharges (for the months that the MDV is in effect) for the calendar year on the Annual report form.

3.2.3.1 Calculated Sample Type – BOD5

Sampling Point 011 represents the combined discharge of dissolved 5-day biochemical oxygen demand (BOD_5) load in pounds per day (lbs/day) from Outfall 012 and total BOD_5 load from Outfall 001 to the Lower Fox River. Each month, the dissolved BOD_5 load attributed to seepage from the aerated lagoon, as calculated pursuant to Section 3.2.2.1, shall be added to the daily total BOD_5 reported for the discharge from Outfall 001 for the same month, and the sum shall be reported for Outfall 011 and included in the determination of compliance with effluent limitations.

3.2.3.2 Calculated Sample Type – Phosphorus, Total

Sampling Point 011 represents the combined discharge of total phosphorus (TP) load in mg/L from Outfall 012 and the total TP load from Outfall 001 to the Lower Fox River. TP should be calculated and reported weekly using the following equation:

$$P_{011} = \frac{(P_{001} * Q_{001}) + (P_{012} * 0.01\ MGD)}{(Q_{001} + 0.01\ MGD)}$$

Where:

P_{011} = The calculated TP value at sample point 011 for a given day (mg/L).

P_{001} = The weekly 24-hour flow proportional composite sample for TP concentration at sampling point 001 (mg/L).

Q_{001} = The average daily flow discharged through Outfall 001 during the previous 7 days (MGD).

P_{012} = The monthly grab TP sample from Sampling Point 012 (mg/L). This sample is collected monthly, so all calculations done in a given month should use that given month's P_{012}.

3.2.3.3 TMDL Limitations for Total Phosphorus

The Wisconsin River TMDL Waste Load Allocation (WLA) for total phosphorus was approved by the U.S. Environmental Protection Agency on April 26, 2019 and the site-specific criteria (SSC) in Appendix K were adopted by rule in s. NR 102.06 (7), Wis. Adm. Code, on June 1, 2020, and approved by the U.S. Environmental Protection Agency on July 9, 2020. The approved TMDL SSC WLA limit for phosphorus is 17,624 lbs/yr, and results in a calculated phosphorus mass limit of 188.3 lbs/day expressed as a monthly average and 62.8 lbs/day expressed as a 6-month average. For this permit term, the permittee has applied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and renewed by USEPA on September 3, 2025, until September 2, 2035. The permittee was approved for the MDV on December 5, 2022.

3.2.3.4 MDV (Multi-Discharger Variance) Requirements

Optimization: The permittee shall optimize performance to control phosphorus discharges in accordance with s. 283.16(6), Wis. Stats. See the Schedules section for optimization requirements.

Compliance Planning: The permittee shall continue to evaluate alternative phosphorus compliance options such as water quality trading and adaptive management. Should the permittee request a future permit term of variance coverage, a financial alternatives analysis shall be completed. The financial alternatives analysis shall evaluate financial mechanisms that have the potential to make compliance with phosphorus WQBELs economically feasible.

Watershed Provisions: The permittee is required to implement watershed measures to reduce the amount of phosphorus entering the receiving water. The permittee has chosen to make payments to the county for phosphorus reductions to meet this requirement.

Payment to County for Phosphorus Reduction: The permittee shall make payments for phosphorus reduction to the county or counties approved by the Department per s. 283.16(8), Wis. Stats. The permittee shall make a total payment by March 1 of each year in the amount equal to the per pound amount of $66.62 times the number of pounds by which the effluent phosphorus discharged during the previous year exceeded the permittee's target value or $640,000, whichever is less. The target value is based on the TMDL-derived limit per s. 283.16(1)(h), Wis. Stats., and is applicable during the months that the MDV is in effect. The MDV is in effect year-round. Refer to the Schedules section for the scheduled annual requirements.

Annual Payment Calculation: The annual payment is equal to the phosphorus load that exceeds the target value multiplied by $66.62 per pound. Use the steps shown below to calculate the annual payment. In addition, the Department shall send a statement to the permittee specifying total payment due to the participating counties each year in accordance with the Schedules section.

Annual Payment = [Annual Phosphorus Load – Annual Target Load] × Price Per Pound
Calculation Steps:

- Calculate pounds of phosphorus discharged for each month that the MDV is in effect:

Monthly Phosphorus Load (lbs/month) = Total Monthly Flow (MG) × Monthly Avg. TP effluent conc. (mg/L) × 8.34

- Sum the lbs/month discharged for the months that the MDV is in effect to calculate the annual phosphorus load:

Annual Phosphorus Load (lbs/year) = ∑ [Monthly Phosphorus Load (lbs/month)]

- Calculate the Target Load (lbs/month) for each month that the MDV is in effect.

Target Value = TMDL Derived Limit 62.8 lbs/day
Monthly Target Load (lbs/month) = Monthly Average Phosphorus Limit (lbs/day) × Number of Days in the Month

- Sum the lbs/months for the months that the MDV is in effect to calculate the Annual Target Load:

Annual Target Load (lbs/year) = ∑ [Monthly Target Load (lbs/month)]

- Calculate the annual payment:

Annual Payment ($) = [Annual Phosphorus Load – Annual Target Load] × Price Per Pound

3.2.4 Sampling Point (Outfall) 014 - WLA EFFECTIVE MAY--OCTOBER

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
WLA Previous Day River Flow		cfs	Daily	Gauge Station	Monitoring Only - May 1 through October 31.
WLA Previous 4 Day Avg River Flow		cfs	Daily	Calculated	Monitoring Only - May 1 through October 31.
WLA Previous Day River Temp		deg F	Daily	Measure	Monitoring Only - May 1 through October 31.
WLA BOD_5 Value		lbs/day	Daily	See Table	May 1 through October 31. Use the "WLA Previous Day River Temp" and "WLA Previous 4-day Avg River Flow" to look up the "WLA BOD_5 Value" (allocation) from Tables 1 - 5 in section 3.2.4.1.
WLA Adjusted Value		lbs/day	Daily	Calculated	May 1 through October 31. Multiply the "WLA BOD_5 Value" times 1.20.
WLA BOD_5 Discharged	Daily Max - Variable	lbs/day	Daily	Calculated	May 1 through October 31. Enter the daily mass of BOD_5 discharged from Outfall 011. Compare to "WLA Adjusted Value" to determine compliance.
WLA 7 Day Sum Of WLA Values		lbs/day	Daily	Calculated	May 1 through October 31. Enter the sum of the "WLA BOD_5 Value" for each 7-consecutive-day period.
WLA 7 Day Sum Of BOD_5 Discharged	Daily Max - Variable	lbs/day	Daily	Calculated	May 1 through October 31. Enter the sum of the "WLA BOD5 Discharged" for each 7-consecutive-day period. Compare to the "WLA 7 Day Sum of WLA Values" to determine compliance.

3.2.4.1 BOD_5 Wasteload Allocation Requirements

Each year during the months of May through October the combined daily discharge of 5-day biochemical oxygen demand (BOD_5) from Outfalls 001 and 012 as calculated for SP 011 is limited to a maximum of 13,632 lbs/day and the following wasteload allocated water quality related effluent limitations.

Definitions:

- Point source allocation values (pounds per day of BOD_5) in the wasteload tables below represent water quality related effluent limitations. The flow and temperature conditions used to determine a point allocation value for a

given day shall be the representative measurement of the flow averaged over the previous 4 days and temperature of the previous day.

- A representative measurement of flow shall be defined as the daily average flow value derived from continuous river flow monitoring data for the Fox River collected at the Appleton Lutz Park USGS/ACOE Gauge Station, or other alternative method or site approved by the Department. Daily average flow values reported by the Lower Fox River Discharge Association are acceptable for use with the waste load tables.
- A representative measurement of temperature shall be defined as the daily average temperature value derived from continuous river temperature monitoring data for the Fox River collected at the Appleton Lutz Park USGS/ACOE Gauge Station. Daily average temperature values reported by the Lower Fox River Discharge Association for the Lutz Park location are acceptable for use with the waste load tables.

Determination of Effluent Limitations: For purposes of determining compliance with the wasteload allocated water quality related effluent limitations, the following conditions shall be met:

- The sum of the actual daily discharges of BOD_5 for any 7-consecutive-day period may not exceed the sum of the daily point source allocation values from the tables for the same 7-consecutive-day period.
- For any one-day period, the actual discharge of BOD_5 shall not exceed 120% of the point source allocation value from the tables for that day.

Monitoring Requirements: The same 24-hour period shall be utilized for the collection of composite and continuous samples for river flow and temperature and all effluent characteristics, including effluent flow and BOD_5.

Reporting Requirements: During the months of May through October inclusive the permittee shall report the following information:

- The daily average river flow value (cfs);
- The daily average river temperature value (°F);
- The daily point source allocation value (lbs. BOD_5 per day);
- The actual daily discharge value of BOD_5 (lbs. BOD_5 per day);
- The sum of the actual daily discharge values of BOD_5 (lbs. BOD_5) for each 7-consecutive-day period (present day's discharge plus the 6 previous day's discharge);
- The sum of the daily point source allocation values (lbs. BOD_5) for each 7-consecutive-day period (present day's allocation plus the 6 previous day's allocation);
- The daily adjusted point source allocation value (percent adjustment factor x point source allocation value); and
- If there is no lbs/day BOD_5 value available, but there was a discharge, for one or more days of the seven consecutive days, add the values from the table only from those days corresponding to days actual measured values are available. If there is no discharge, use a zero for that day. For all days on which there is no measured value the permittee shall submit a written explanation to the Watershed Engineer.

Wasteload Allocated Water Quality Related Effluent Limitations Restriction: In no case shall the waste-load allocated water quality related effluent limitations be less stringent than the applicable categorical effluent limitations.

MAY through JUNE

Wasteload Allocated Effluent Values (lbs/day of BOD_5)
(River mile 32.4 to 19.2)

River Temperature (previous day average in °F)	Flow at Appleton Lutz Park USGS/ACOE Gauging Station (previous four-day average in cfs)														
	750 OR LESS	751 TO 1000	1001 TO 1250	1251 TO 1500	1501 TO 1750	1751 TO 2000	2001 TO 2250	2251 TO 2500	2501 TO 2750	2751 TO 3000	3001 TO 3500	3501 TO 4000	4001 TO 5000	5001 TO 8000	8001 OR MORE

≥86	4801	5020	5428	5909	6426	6947	7453	7928	8434	8936	9734	10877	12539	15710	18073
82 TO 85	4774	5022	5460	5996	6554	7102	7628	8112	8658	9346	10226	11467	13225	16721	19579
78 TO 81	4707	5017	5538	6155	6775	7367	7984	8712	9528	10147	11030	12554	14555	18481	22448
74 TO 77	4639	5010	5644	6337	6996	7824	8685	9525	10204	10875	11994	13594	15669	20659	24724
70 TO 73	4587	5029	5769	6541	7493	8473	9417	10133	10912	11721	12955	14894	16861	23380	24724
66 TO 69	4592	5138	5966	7033	8139	9235	10061	10902	11866	12778	14169	16148	18532	24724	24724
62 TO 65	4683	5315	6487	7753	9039	10010	11018	12089	13134	14189	15971	17829	21027	24724	24724
58 TO 61	4899	5863	7338	8877	10061	11315	12603	13763	15123	16482	18078	20686	24724	24724	24724
54 TO 57	5541	6802	8712	10201	11817	13336	14899	16659	17972	19425	21802	24724	24724	24724	24724
50 TO 53	6667	8402	10388	12507	14430	16664	18530	20405	22490	24724	24724	24724	24724	24724	24724
46 TO 49	8648	10496	13208	15986	18985	21507	24321	24724	24724	24724	24724	24724	24724	24724	24724
42 TO 45	11372	13899	17937	22153	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724
≤41	15723	20010	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724

JULY

Wasteload Allocated Effluent Values (lbs/day of BOD_5)
(River mile 32.4 to 19.2)

River Temperature (previous day average in °F)	Flow at Appleton Lutz Park USGS/ACOE Gauging Station (previous four-day average in cfs)														
	750 OR LESS	751 TO 1000	1001 TO 1250	1251 TO 1500	1501 TO 1750	1751 TO 2000	2001 TO 2250	2251 TO 2500	2501 TO 2750	2751 TO 3000	3001 TO 3500	3501 TO 4000	4001 TO 5000	5001 TO 8000	8001 OR MORE
≥86	4771	4970	5408	5897	6320	6433	6632	6927	7188	7320	7702	8397	9457	12507	14611
82 TO 85	4811	5049	5455	5973	6460	6755	6967	7151	7340	7748	8336	9071	10521	13682	16283
78 TO 81	4776	5088	5558	6094	6595	7033	7402	7805	8299	8729	9344	10578	12153	15846	19422
74 TO 77	4784	5086	5642	6207	6723	7350	8124	8704	9228	9727	10715	11994	13577	18314	23011
70 TO 73	4737	5128	5705	6310	7114	8075	9024	9621	10268	11005	12028	13277	15115	21254	24724
66 TO 69	4727	5189	5823	6733	7849	8970	9818	10688	11551	12338	13252	14680	17052	24724	24724
62 TO 65	4793	5302	6261	7527	8881	9899	10946	12065	12864	13584	14769	16639	19732	24724	24724
≤61	4951	5725	7173	8808	10059	11384	12682	13525	14464	15469	17119	19675	23945	24724	24724

AUGUST

Wasteload Allocated Effluent Values (lbs/day of BOD_5)
(River mile 32.4 to 19.2)

River Temperature (previous day average in °F)	Flow at Appleton Lutz Park USGS/ACOE Gauging Station (previous four-day average in cfs)														
	750 OR LESS	751 TO 1000	1001 TO 1250	1251 TO 1500	1501 TO 1750	1751 TO 2000	2001 TO 2250	2251 TO 2500	2501 TO 2750	2751 TO 3000	3001 TO 3500	3501 TO 4000	4001 TO 5000	5001 TO 8000	8001 OR MORE
≥86	4204	4380	4806	5324	5838	6300	6699	7045	7362	7652	8046	8407	9231	11787	13498
82 TO 85	4204	4420	4875	5420	5939	6411	6826	7180	7529	7812	8363	8877	10231	12952	15032
78 TO 81	4204	4486	4988	5565	6116	6608	7045	7436	8028	8623	9135	10292	11622	14845	18001
74 TO 77	4204	4530	5098	5713	6291	6812	7463	8240	8859	9437	10381	11490	12994	17114	21376
70 TO 73	4204	4577	5209	5855	6477	7399	8272	8960	9658	10403	11482	12724	14319	19921	24724
66 TO 69	4206	4690	5374	6138	7203	8232	9049	9845	10752	11718	12711	13992	16123	23338	24724
62 TO 65	4317	4855	5708	6930	8156	9127	10108	11153	12362	13026	14088	15789	18685	24724	24724
≤61	4506	5216	6610	8085	9285	10541	11873	12999	13845	14759	16263	18675	22704	24724	24724

SEPTEMBER

Wasteload Allocated Effluent Values (lbs/day of BOD_5)
(River mile 32.4 to 19.2)

River Temperature (previous day average in °F)	Flow at Appleton Lutz Park USGS/ACOE Gauging Station (previous four-day average in cfs)														
	750 OR LESS	751 TO 1000	1001 TO 1250	1251 TO 1500	1501 TO 1750	1751 TO 2000	2001 TO 2250	2251 TO 2500	2501 TO 2750	2751 TO 3000	3001 TO 3500	3501 TO 4000	4001 TO 5000	5001 TO 8000	8001 OR MORE
≥86	4204	4204	4204	4658	5231	5760	6254	6708	7139	7534	8055	8589	9415	11839	13574
82 TO 85	4204	4204	4204	4776	5361	5902	6389	6836	7293	7704	8036	8854	10258	12920	15039
78 TO 81	4204	4204	4331	4970	5580	6150	6672	7141	7566	7906	8673	10039	11440	14666	18001
74 TO 77	4204	4204	4486	5152	5787	6377	6917	7453	8075	8687	9678	11175	12726	16888	21359
70 TO 73	4204	4204	4634	5332	5983	6762	7441	8114	8852	9592	10905	12365	13931	19690	24724
66 TO 69	4204	4204	4840	5570	6561	7392	8193	9019	9919	10902	12261	13557	15659	23127	24724
62 TO 65	4204	4307	5096	6291	7303	8257	9258	10288	11517	12547	13582	15280	18240	24724	24724
58 TO 61	4204	4599	5959	7207	8385	9641	10964	12409	13299	14186	15669	18114	22207	24724	24724
54 TO 57	4353	5506	7070	8559	10174	11935	13336	14432	15669	17043	19285	22834	24724	24724	24724
50 TO 53	5410	6812	8731	10895	13097	14656	16224	18014	19992	22126	24724	24724	24724	24724	24724
46 TO 49	6964	8781	11711	14562	16659	19046	21723	24693	24724	24724	24724	24724	24724	24724	24724
42 TO 45	9521	12416	16352	19602	23326	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724
≤41	13997	18188	23665	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724

OCTOBER

Wasteload Allocated Effluent Values (lbs per day of BOD_5)
(River mile 32.4 to 19.2)

River Temperature (previous day average in °F)	Flow at Appleton Lutz Park USGS/ACOE Gauging Station (previous four-day average in cfs)														
	750 OR LESS	751 TO 1000	1001 TO 1250	1251 TO 1500	1501 TO 1750	1751 TO 2000	2001 TO 2250	2251 TO 2500	2501 TO 2750	2751 TO 3000	3001 TO 3500	3501 TO 4000	4001 TO 5000	5001 TO 8000	8001 OR MORE
≥66	4204	4204	4265	5005	5671	6409	7212	8068	9002	10034	11821	13299	15610	23638	24724
62 TO 65	4204	4204	4494	5440	6315	7261	8294	9334	10619	12011	13223	15029	18149	24724	24724
58 TO 61	4204	4204	5140	6197	7357	8631	9968	11467	12849	13754	15292	17844	22178	24724	24724
54 TO 57	4204	4653	6013	7473	9095	10855	12719	13899	15157	16553	18869	22576	24724	24724	24724
50 TO 53	4469	5681	7559	9705	12084	14009	15585	17374	19390	21566	24724	24724	24724	24724	24724
46 TO 49	5718	7473	10359	13427	15843	18232	20922	23906	24724	24724	24724	24724	24724	24724	24724
42 TO 45	8019	10853	14958	18554	22247	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724
≤41	12424	16433	22298	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724	24724

3.2.5 Sampling Point (Outfall) 003 - NONCONTACT COOLING WATER

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
Temperature Maximum	Daily Max	120 deg F	Daily	Continuous	Limit effective April, July, and August. Monitoring only for the rest of the year.
Halogen, Total Residual as Cl2	Daily Max	38 µg/L	Daily	Grab	See permit sections 3.2.5.2 and 5.3.6.
Halogen, Total Residual as Cl2	Monthly Avg	38 µg/L	Daily	Grab	See permit sections 3.2.5.2 and 5.3.6.
pH (Minimum)	Daily Min	6.0 su	Quarterly	Grab	
pH (Maximum)	Daily Max	9.0 su	Quarterly	Grab	

3.2.5.1 Effluent Temperature Monitoring

For monitoring temperature continuously, collect measurements in accordance with s. NR 218.04(13), Wis. Adm. Code. This means that discrete measurements shall be recorded at intervals of not more than 15 minutes during the 24-hour period. Report the maximum temperature measured during the day on the DMR.

3.2.5.2 Halogen, Total Residual as Chlorine

Acceptable test methods for determining Halogens, Total Residual as Cl2 are the same as those for measuring Chlorine, Total Residual. These methods are listed for Chlorine, Total Residual in chapter NR 219, Table B, Wisconsin Administrative Code. The preferred test methods are the Spectrophotometric, DPD; the Electrode; and the Back Titration with amperometric endpoint.

4 Schedules

4.1 Impingement Technology Performance Optimization Study

The permittee shall notify the department in writing of its compliance or noncompliance with the interim or final requirements of schedules no later than 14 days following each interim date and the final date of compliance, in accordance with s. NR 106.117(3)(f), Wis. Adm. Code.

Required Action	Due Date
Impingement Technology Performance Optimization Study Plan: The permittee shall submit a study plan for the Impingement Technology Performance Optimization Study required in order to comply with the facility's chosen Impingement Mortality Standard specified in s. NR 111.12 (1)(a)(6), Wis. Adm. Code (system of technologies). The study shall be designed to meet all requirements outlined in s. NR 111.41(5)(b), Wis. Adm. Code. If the study does not meet the requirements of code or the department determines that the terms and conditions of this permit need to be updated in order for the facility to comply with impingement mortality standards, the department may modify or revoke and reissue this permit. The study must also contain an analysis of the use of modified traveling screens as an alternative compliance method for Impingement Mortality Standards.	12/31/2026
Commence Impingement Reduction Verification Sampling: The permittee shall commence the study in accordance with the approved study plans by the listed date.	07/01/2027
Optimization Study Progress Report 1: The permittee shall submit a progress report to the department outlining which portions of the study have been completed and data that has been collected thus far.	07/01/2028
Optimization Study Progress Report 2: The permittee shall submit a progress report to the department outlining which portions of the study have been completed and data that has been collected thus far.	07/01/2029
Final Report: The permittee shall submit the final Impingement Technology Performance Optimization Study to the department. The final report shall meet all requirements outlined in s. NR 111.41(5)(b), Wis. Adm. Code.	06/30/2030

4.2 Water Intake Requirements

The permittee shall submit annual certification statements as specified by Section 1.3.4.2, Annual Certification Statement and Report, in accordance with the following schedule.

Required Action	Due Date
Annual Certification Statements and Reports: Submit an annual certification statement and report on the water intake structures. The annual certification shall include a summary of maintenance and operation of water intake structure technologies, a summary of visual or remote inspections conducted, and a summary of any substantial modifications to the operation of any units that will impact cooling water withdrawals or operation of the water intake structure. The first annual certification statement and report is to be submitted by the Due Date.	01/21/2026
Annual Certification Statement #2: Submit a second annual certification statement as defined above.	01/31/2027
Annual Certification Statement #3: Submit a third annual certification statement as defined above.	01/31/2028

Annual Certification Statement #4: Submit a fourth annual certification statement as defined above.	01/31/2029
Annual Certification Statement #5: Submit a fifth annual certification statement as defined above.	01/31/2030
Annual Certification Statements After Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual certification statements each year by the date specified in Section 1.3.4.2.	

4.3 Mercury Pollution Minimization Summary

Required Action	Due Date
Final Mercury Report: Submit a report summarizing the mercury pollutant minimization measures implemented during the current permit term and the success in maintaining effluent quality at or below the current concentrations. The report shall include an analysis of trends in quarterly and annual average mercury concentrations and total mass discharge of mercury based on mercury sampling and flow data covering the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loadings of mercury such as loads from industries or collection system maintenance.	06/30/2030

4.4 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results.	12/31/2026
Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan. This report shall include all additional PFOS and PFOA data that may be collected including any influent, intake, in-plant, collection system sampling, and blank sample results. The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan. If the Department determines a PFOS/PFOA minimization plan is needed based on a reasonable potential evaluation, the permittee will be required to develop a minimization plan for Department approval no later than 90 days after written notification was sent from the Department. The Department will modify or revoke and reissue the permit to include PFOS/PFOA minimization plan reporting requirements along with a schedule of compliance to meet WQBELs. Effluent monitoring of PFOS and PFOA shall continue as specified in the permit until the modified permit is issued. If, however, the Department determines there is no reasonable potential for the facility to discharge PFOS or PFOA above the narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code, no further	12/31/2027

action is required and effluent monitoring of PFOS and PFOA shall continue as specified in the permit.	

4.5 Phosphorus Schedule - Optimization and Compliance Planning

The permittee is required to optimize performance and undertake compliance planning to control phosphorus discharges per the following schedule.

Required Action	Due Date
Optimization and Compliance Alternatives: The permittee shall implement a phosphorus discharge optimization plan to control phosphorus discharges to the greatest extent practicable. Submit a progress report that summarizes the approach to phosphorus removal at the facility, the resulting concentration and mass loading for the last 12-month period, and any changes that were or are needed to optimize removal of phosphorus by the due date. The permittee shall also evaluate alternative phosphorus compliance options such as water quality trading and adaptive management. The progress report submitted on the date due shall also detail any outreach activities undertaken to evaluate these options, any communications with credit generators, brokers/clearinghouse, and any potential water quality trading or adaptive management projects that may lead to compliance with phosphorus WQBELs. Financial alternatives evaluation: If the permittee intends to seek a renewed variance at the end of this permit term, the permittee may complete a financial evaluation to support ongoing variance eligibility. The report must evaluate financial mechanisms that have the potential to make compliance with phosphorus WQBELs economically feasible.	12/31/2026
Progress Report #2: Submit a progress report per the above for the prior calendar year.	12/31/2027
Progress Report #3: Submit a progress report per the above for the prior calendar year.	12/31/2028
Progress Report #4: Submit a progress report per the above for the prior calendar year.	12/31/2029
Final MDV Optimization and Compliance Alternatives Report: Submit a progress report per the above for the prior calendar year. If water quality trading or adaptive management will be used to comply with phosphorus limitations during the next permit term, submit a draft water quality trading plan, adaptive management plan, or executed clearinghouse credit purchase agreement. The financial alternatives evaluation as described above must be submitted by the date due if the facility chooses to seek renewal of the variance.	06/30/2030

4.6 Phosphorus Payment per Pound to County

The permittee is required to make annual payments for phosphorus reductions to the participating county or counties in accordance with s. 283.16(8), Wis. Stats, and the following schedule. The price per pound will be set at the time of permit reissuance and will apply for the duration of the permit.

Required Action	Due Date
Annual Verification of Phosphorus Payment to County: The permittee shall make a total payment to the participating county or counties approved by the Department by March 1 of each calendar year. The amount due is equal to the following: [(lbs of phosphorus discharged minus the permittee's target value) times ($66.62 per pound)] or $640,000, whichever is less. See the payment calculation steps in the Surface Water section.	03/01/2027

The permittee shall submit Form 3200-151 to the Department by March 1 of each calendar year indicating total amount remitted to the participating counties to verify that the correct payment was made. The first payment verification form is due by the specified Due Date. Note: The applicable Target Value is the TMDL derived limit value as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is $50.00 adjusted for CPI.	
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2028
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2029
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2030
Continued Coverage: If the permittee intends to seek a renewed variance, an application for the MDV (Multi Discharger Variance) shall be submitted as part of the application for permit reissuance in accordance with s. 283.16(4)(b), Wis. Stats.	
Annual Verification of Payment After Permit Expiration: In the event that this permit is not reissued prior to the expiration date, the permittee shall continue to submit Form 3200-151 to the Department indicating total amount remitted to the participating counties by March 1 each year.	

4.7 Biocide Use Certification

Required Action	Due Date
Biocide Use Certification: The certification of nonuse of chlorophenolic-containing biocides must be in the form of a notarized affidavit signed by the authorized representative and must state that chlorophenolic-containing biocides are not in use at the facility.	06/30/2030

5 Standard Requirements

Chapter NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), 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(3), Wis. Adm. Code.

5.1 Reporting and Monitoring Requirements

5.1.1 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 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.

5.1.2 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 completed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sampling shall be performed in accordance with procedures contained in s. NR 140.16, Wis. Adm. Code, and the WDNR publications, Groundwater Sampling Desk Reference (PUBL-DG-037-96) and Groundwater Sampling Field Manual (PUBL-DG-038-96). The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation and/or groundwater standard. If the required level cannot be met by any of the methods available in ch. 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.

5.1.3 Recording of Results

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

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

5.1.4 Reporting of Monitoring Results

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

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating fees under ch. NR 101, Wis. Adm. Code, a reporting limit of 2.0 mg/L for BOD_5 and 2.5 mg/L 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.
- If no discharge occurs through an outfall, flow related parameters (e.g. flow rate, hydraulic application rate, volume, etc.) should be reported as "0" (zero) at the required sample frequency specified for the outfall. For example: if the sample frequency is daily, "0" would be reported for any day during the month that no discharge occurred.

5.1.5 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, except for sludge management forms and records, which shall be kept for a period of at least 5 years.

5.1.6 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.

5.1.7 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.

5.2 System Operating Requirements

5.2.1 Noncompliance Reporting

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 as directed at the end of this permit 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.**

5.2.2 Bypass

Except for a controlled diversion as provided in the 'Controlled Diversions' section of this permit, any bypass 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 preventive 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.

5.2.3 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 unscheduled bypassing 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.

5.2.4 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation provided the following requirements are met:

- Effluent from the wastewater 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 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 wastewater treatment facility records and such records shall be available to the department on request.

5.2.5 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.

5.2.6 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).

5.2.7 Spill Reporting

The permittee shall notify the Department in accordance with ch. NR 706 (formerly NR 158), Wis. Adm. Code, in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations established in this permit, or the spill or accidental release of the material is unregulated in this permit, unless the spill or release of pollutants has been reported to the Department in accordance with s. NR 205.07 (1)(s), Wis. Adm. Code.

5.2.8 Planned Changes

In accordance with ss. 283.31(4)(b) and 283.59, Stats., the permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants. The report shall either be a new permit application, or if the new discharge will not violate the effluent limitations of this permit, a written notice of the new, different or increased discharge. The notice shall contain a description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on existing waste treatment facilities. Following receipt of

this report, the Department may modify this permit to specify and limit any pollutants not previously regulated in the permit.

5.2.9 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall, to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

5.3 Surface Water Requirements

5.3.1 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.

5.3.2 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, except in cases of Water Quality Trading, wherein the applicable periods are January through June and July through December.]

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.

5.3.3 Effluent Temperature Requirements

Weekly Average Temperature – If temperature limits are included in this permit, Weekly Average Temperature shall be calculated as 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 pursuant to Wis. Adm. Code, s. NR 102.28. '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 pursuant to Wis. Adm. Code, s. NR 102.29.

5.3.4 Visible Foam or Floating Solids

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

5.3.5 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.

5.3.6 Total Residual Chlorine Requirements

When total residual chlorine (TRC) limit(s) or monitoring are included in a permit, the permittee shall comply with the following conditions:

a) The permittee shall perform TRC monitoring required in this permit using an approved method from ch. NR 219, Wis. Adm. Code, which produces a detection limit that is less than or equal to the permitted limit or produces the lowest economically feasible detection limit if the approved methods cannot meet the permit limit. If the facility cannot achieve a detection limit less than or equal to the permit limit using the approved methods, contact the laboratory accreditation program for guidance.

b) The permittee shall determine the limit of detection (LOD) as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, or the permittee shall contact the laboratory accreditation program for information on how to determine a verified detection limit allowed just for TRC. If the verified detection limit is determined using the special procedure, then the LOD and limit of quantitation (LOQ) shall be set to be equal to the verified detection limit determined from this special procedure.

c) The permittee shall determine compliance with the TRC limit(s) as follows:

    1. If the facility determines a statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured TRC levels are less than the LOD, the permittee shall report the results as less than the LOD (<LOD). For this situation the LOQ shall be established at 3.33 times the LOD or at the concentration of the lowest standard in the calibration curve. TRC levels that are < LOD are in compliance with the TRC limit.

2. If the facility determines the verified detection limit using the laboratory accreditation program special procedure, this verified detection limit shall be reported as the LOD and LOQ. If the measured TRC levels are less than the LOD, the permittee shall report the results as < LOD. TRC levels that are < LOD are in compliance with the TRC limit.

3. If the facility determines the statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured TRC levels are greater than the statistical LOD but less than the LOQ, TRC levels are in compliance with the TRC limit - except when the measured levels are consistently reported between the LOD and LOQ. When the measured TRC levels are consistently reported between the LOD and LOQ, the facility shall take action to determine the reliability of detected results (such as resampling and/or re-calculating dosages) and shall adjust the chemical feed system if necessary to reduce the chances of detecting levels between the statistical LOD and LOQ.

4. If the facility determines the statistical LOQ as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, or determines the verified detection limit using the laboratory accreditation program special procedure, TRC measured levels that are greater than the statistical LOQ and the TRC limit, are not in compliance with the TRC limit. The permittee shall report the level as a limit exceedance.

5. If the facility determines the statistical LOD as specified in s. NR 149.48 (2)(b), Wis. Adm. Code, and the measured level is < LOD, then a "0" (zero) value may be substituted for any test result less than the statistical LOD when calculating the average or mass discharge values. Calculated values shall then be compared directly to the average or mass limits to determine compliance.

6. If the facility determines the verified detection limit using the laboratory accreditation program special procedure and the measured level is < LOD (set equal to the verified detection limit), then a "0" (zero) value may be substituted for any test result less than the LOD when calculating the average or mass discharge values. Calculated values shall then be compared directly to the average or mass limits to determine compliance.

5.3.7 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.

5.3.8 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 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. Conduct toxicity screening tests on the effluent at a minimum of once per month for six months to determine if toxicity recurs. Screening tests are WET tests using fewer effluent concentrations conducted on the most sensitive species. If any of the

screening tests contain toxicity, conduct a toxicity identification evaluation (TIE) to determine the cause. TIE methods are available from USEPA "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F).

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.

5.3.9 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.

5.3.10 PFOS and PFOA Requirements

The laboratory performing the analysis on any samples shall be certified for the applicable PFAS compounds in the aqueous matrix by the Wisconsin Laboratory Certification Program established under s. 299.11, Wis. Stats., in accordance with s. NR 149.41, Wis. Adm. Code. All laboratories are required to utilize EPA Method 1633A for sampling PFAS in sludge.

The Department may reject any sample results if results are produced by a laboratory that is not in compliance with certification requirements under ch. NR 149, Wis. Adm. Code.

6 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Impingement Technology Performance Optimization Study -Impingement Technology Performance Optimization Study Plan	December 31, 2026	19
Impingement Technology Performance Optimization Study -Commence Impingement Reduction Verification Sampling	July 1, 2027	19
Impingement Technology Performance Optimization Study -Optimization Study Progress Report 1	July 1, 2028	19
Impingement Technology Performance Optimization Study -Optimization Study Progress Report 2	July 1, 2029	19
Impingement Technology Performance Optimization Study -Final Report	June 30, 2030	19
Water Intake Requirements -Annual Certification Statements and Reports	January 21, 2026	19
Water Intake Requirements -Annual Certification Statement #2	January 31, 2027	19
Water Intake Requirements -Annual Certification Statement #3	January 31, 2028	19
Water Intake Requirements -Annual Certification Statement #4	January 31, 2029	20
Water Intake Requirements -Annual Certification Statement #5	January 31, 2030	20
Water Intake Requirements -Annual Certification Statements After Expiration	See Permit	20
Mercury Pollution Minimization Summary -Final Mercury Report	June 30, 2030	20
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge	December 31, 2026	20
PFOS/PFOA Minimization Plan Determination of Need -Report on Effluent Discharge and Evaluation of Need	December 31, 2027	20
Phosphorus Schedule - Optimization and Compliance Planning - Optimization and Compliance Alternatives	December 31, 2026	21
Phosphorus Schedule - Optimization and Compliance Planning -Progress Report #2	December 31, 2027	21
Phosphorus Schedule - Optimization and Compliance Planning -Progress Report #3	December 31, 2028	21
Phosphorus Schedule - Optimization and Compliance Planning -Progress Report #4	December 31, 2029	21
Phosphorus Schedule - Optimization and Compliance Planning -Final MDV Optimization and Compliance Alternatives Report	June 30, 2030	21
Phosphorus Payment per Pound to County -Annual Verification of Phosphorus Payment to County	March 1, 2027	21
Phosphorus Payment per Pound to County -Annual Verification of Payment #2	March 1, 2028	22
Phosphorus Payment per Pound to County -Annual Verification of Payment	March 1, 2029	22

#3		
Phosphorus Payment per Pound to County -Annual Verification of Payment #4	March 1, 2030	22
Phosphorus Payment per Pound to County -Continued Coverage	See Permit	22
Phosphorus Payment per Pound to County -Annual Verification of Payment After Permit Expiration	See Permit	22
Biocide Use Certification -Biocide Use Certification	June 30, 2030	22
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	23

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:
Central Office, 101 S Webster St, P.O. Box 7921, Madison, WI 53707-7921