



WPDES PERMIT

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

CALUMET SUPERIOR LLC

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility
located at
2407 Stinson Avenue
to

**NEWTON CREEK WITHIN THE ST. LOUIS AND LOWER NAMADJI WATERSHED IN THE LAKE
SUPERIOR BASIN IN DOUGLAS 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 _____
Susan Sylvester
Director, Bureau of Water Quality

Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - April 01, 2014

EXPIRATION DATE - March 31, 2019

TABLE OF CONTENTS

1 IN-PLANT REQUIREMENTS	1
1.1 SAMPLING POINT(S)	1
1.2 MONITORING REQUIREMENTS AND LIMITATIONS	1
1.2.1 <i>Sampling Point 101 - PROCESS WW PLUS RUNOFF</i>	1
1.2.2 <i>Sampling Point 102 - RUNOFF VOLUME</i>	1
1.2.3 <i>Sampling Point 103 - DAILY RUNOFF ALLOWANCE</i>	2
1.2.4 <i>Sampling Point 104 - MONTHLY RUNOFF ALLOWANCE</i>	2
1.2.5 <i>Sampling Point 105 - MERCURY FIELD BLANK</i>	3
1.2.6 <i>Sampling Point 106 – Mechanical Plant Discharge</i>	3
2 2SURFACE WATER REQUIREMENTS	4
2.1 SAMPLING POINT(S)	4
2.2 MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS	4
2.2.1 <i>Sampling Point (Outfall) 001 - PROCESS WW OUTFALL</i>	4
THE EFFLUENT CONCENTRATION OF PAHS, TOTAL COMPOUNDS, SHALL BE CALCULATED AS THE SUM OF THE INDIVIDUAL EFFLUENT CONCENTRATIONS OF CHRYSENE, BENZO(A)ANTHRACENE, BENZO(B)FLUORANTHENE, BENZO(K)FLUORANTHENE, BENZO(GHI)PERYLENE, DIBENZO(A,H)ANTHRACENE, INDENO(1,2,3-CD)PYRENE, PHENANTHRENE AND PYRENE. ANALYSIS SHALL BE PERFORMED USING EPA TEST METHOD - SW-846 8310 (HPLC) OR OTHER APPROVED TEST METHOD WITH SIMILAR DETECTION LIMITS (SUCH AS EPA METHOD 8270 GC/MS).	9
MONITORING FOR BIOACCUMULATING SUBSTANCES REFERENCED BY THIS FOOTNOTE IN TABLE 2.2.1 ABOVE SHALL BE MONITORED ONCE DURING CALENDAR YEAR 2018. RESULTS SHALL BE SUBMITTED ON THE DISCHARGE MONITORING REPORT AND INCLUDED WITH THE NEXT PERMIT REISSUANCE APPLICATION.	9
NOTIFICATION SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD REQUIREMENTS CONDITION FOR PLANNED CHANGES, IF THE PERMITTEE BECOMES AWARE OF DISCHARGE OF ANY OF THE SUBSTANCES LISTED IN TABLE 2.2.1 ABOVE AS PERSISTENT BIOACCUMULATING SUBSTANCES IDENTIFIED BY THIS FOOTNOTE, EITHER THROUGH EFFLUENT MONITORING OR OTHER DETERMINATIONS REGARDING PRODUCTION PROCESSES WHICH GENERATE THIS WASTEWATER. THE NOTIFICATION SHALL INCLUDE THE CONCENTRATION OF THE SUBSTANCE AND THE PROBABLE CAUSE OF ITS PRESENCE. WITHIN TWELVE MONTHS OF BECOMING AWARE OF A DISCHARGE OF ANY OF THE SUBSTANCES, THE PERMITTEE SHALL CONDUCT A STUDY ON THE SOURCES OF THE PERSISTENT BIOACCUMULATING TOXIC SUBSTANCES REFERENCED TO THIS FOOTNOTE AND REPORT TO THE DEPARTMENT THOSE ACTIVITIES WHICH THE PERMITTEE COULD CONDUCT TO REDUCE TO THE MAXIMUM EXTENT PRACTICABLE THE DISCHARGE OF THESE SUBSTANCES.	9
2.2.2 <i>Sampling Point (Outfall) 002 - STORMWATER RUNOFF</i>	9
2.2.3 <i>Sampling Point (Outfall) 003 - STORMWATER RUNOFF</i>	10
2.2.4 <i>Sampling Point (Outfall) 004 - HYDROSTATIC TEST WATER</i>	10
2.2.5 <i>Sampling Point (Outfall) 011 - ADJUSTED DAILY PROCESS WW</i>	10
2.2.6 <i>Sampling Point (Outfall) 021 - ADJUSTED MONTHLY PROCESS WW</i>	11
3 SCHEDULES	12
3.1 MERCURY POLLUTANT MINIMIZATION PROGRAM	12
3.2 WATER QUALITY BASED EFFLUENT LIMITS (WQBELS) FOR TOTAL PHOSPHORUS	12
3.3 CHLORIDE LIMIT	14
4 STANDARD REQUIREMENTS	16
4.1 REPORTING AND MONITORING REQUIREMENTS	16
4.1.1 <i>Monitoring Results</i>	16
4.1.2 <i>Sampling and Testing Procedures</i>	16

4.1.3 <i>Recording of Results</i>	16
4.1.4 <i>Reporting of Monitoring Results</i>	17
4.1.5 <i>Records Retention</i>	17
4.1.6 <i>Other Information</i>	17
4.2 SYSTEM OPERATING REQUIREMENTS	17
4.2.1 <i>Noncompliance Notification</i>	17
4.2.2 <i>Bypassing</i>	18
4.2.3 <i>Bypass Due to Essential Construction or Maintenance (Controlled Diversion)</i>	18
4.2.4 <i>Proper Operation and Maintenance</i>	19
4.2.5 <i>Spill Reporting</i>	19
4.2.6 <i>Planned Changes</i>	19
4.2.7 <i>Duty to Halt or Reduce Activity</i>	19
4.3 SURFACE WATER REQUIREMENTS	19
4.3.1 <i>Permittee-Determined Limit of Quantitation Incorporated into this Permit</i>	19
4.3.2 <i>Appropriate Formulas for Effluent Calculations</i>	19
4.3.3 <i>Effluent Temperature Requirements</i>	20
4.3.4 <i>Visible Foam or Floating Solids</i>	20
4.3.5 <i>Compliance with Phosphorus Limitation</i>	20
4.3.6 <i>Whole Effluent Toxicity (WET) Monitoring Requirements</i>	21
4.3.7 <i>Whole Effluent Toxicity (WET) Identification and Reduction</i>	21
5 SUMMARY OF REPORTS DUE	22

1 In-Plant Requirements

1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
101	For parameters with Categorical Limits report the actual total effluent mass discharged before mass allowance adjustments.
102	The volume of process area runoff water treated in the main refinery process WW treatment facility and discharged through Outfall 001.
103	The stormwater runoff daily mass allowances as calculated in accordance with the procedures shown in this section.
104	The stormwater runoff monthly mass allowances as calculated in accordance with the procedures shown in this section.
105	DMR Sample Point for reporting results of mercury field blanks.
106	Discharge from mechanical WWTP to constructed wetland.

1.2 Monitoring Requirements and Limitations

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

1.2.1 Sampling Point 101 - PROCESS WW PLUS RUNOFF

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)		mg/L	2/Week	Grab	
Oil & Grease (Hexane)		lbs/day	2/Week	Calculated	
COD		mg/L	2/Week	24-Hr Comp	
COD		lbs/day	2/Week	Calculated	
Phenols, Total		lbs/day	Monthly	Calculated	
Chromium, Total Recoverable		lbs/day	Monthly	Calculated	
Chromium ⁺⁶		lbs/day	Monthly	Calculated	

1.2.2 Sampling Point 102 - RUNOFF VOLUME

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Precipitation		in/day	Daily	Continuous	
Flow Rate		MGD	Daily	Calculated	

1.2.3 Sampling Point 103 - DAILY RUNOFF ALLOWANCE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)		lbs/day	Per Occurrence	Calculated	
COD		lbs/day	Per Occurrence	Calculated	
Phenols, Total		lbs/day	Per Occurrence	Calculated	
Chromium ⁺³		lbs/day	Per Occurrence	Calculated	
Chromium ⁺⁶		lbs/day	Per Occurrence	Calculated	

1.2.4 Sampling Point 104 - MONTHLY RUNOFF ALLOWANCE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)		lbs/day	Per Occurrence	Calculated	
COD		lbs/day	Per Occurrence	Calculated	
Phenols, Total		lbs/day	Per Occurrence	Calculated	
Chromium ⁺³		lbs/day	Per Occurrence	Calculated	
Chromium ⁺⁶		lbs/day	Per Occurrence	Calculated	

Categorical effluent limit daily mass allowances as calculated below will be given for the volume of process area runoff water treated in the main refinery process wastewater treatment facility and discharged through Outfall 001. Any calculated allowances which the permittee wishes to obtain shall be reported at Sample Points 103 and 104. The calculated allowance for these parameters may be subtracted from the total mass of each parameter discharged through Outfall 001. The mass discharged (after any subtraction of allowance) shall be reported at Sample Points 011 and 021 and compared to the daily maximum and monthly average limits, respectively.

Additional Allowances For Runoff

<u>Effluent Characteristic</u>	<u>Daily Maximum</u> (lbs/1000 gal)	<u>Monthly Average</u> (lbs/1000 gal)
COD	3.0	1.5
Oil & Grease	0.13	0.067
Phenolic Compounds (4AAP)	0.0029	0.0014
Chromium, Total	0.0060	0.0018
Chromium, Hexavalent	0.00052	0.00023
pH	within the range of 6.0 to 9.0 s.u.	

The volume of process area runoff water treated in the main refinery process wastewater treatment facility and discharged on any day shall be computed as follows:

$$PARO = (RF + SM)(PA)(CF) \text{ where:}$$

- PARO = daily volume of process area runoff in gallons per day (gpd)
- RF + SM = daily amount of rainfall and/or snow melt in inches per day (in/d)
- PA = refinery process area of 5.4 acres or such other area (not to exceed 6.0 acres) as may be subsequently approved in writing by the Department
- CF = conversion factor of 27,152 gallons per acre-inch

The permittee shall report the following parameters on a total runoff event when the runoff allowance is claimed (on DMR designated Sample Point 102):

<u>Parameter</u>	<u>Units</u>
Total Daily amount of rainfall and/or snow melt	inches of water per day
Daily volume of process area runoff	MGD

1.2.5 Sampling Point 105 - 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	

1.2.5.1 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.

1.2.6 Sampling Point 106 – Mechanical Plant Discharge

Parameter	Limit Type	Units	Sample Frequency	Sample Type	Notes
Temperature Maximum		Deg F	3/week	Continuous	

2 Surface Water Requirements

2.1 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, WasteType/Sample Contents and Treatment Description (as applicable)
001	Treated process wastewater (excluding all catalytic reformer regeneration wastewater), cooling tower and boiler blowdown, water softener wastewater and process area stormwater runoff sampled after the constructed wetland receiving activated sludge treated wastewater prior to discharge to Newton Creek
002	Stormwater sampled after a retention pond
003	Stormwater sampled after a retention pond
004	Outfall 004 limits and requirements apply only to periodic direct discharge of treated hydrostatic test water to Newton Creek sampled prior to discharge. The hydrostatic test water shall be treated via an oil water separator prior to sampling and discharge.
011	The daily maximum effluent mass discharged after subtracting the Daily Runoff Allowance at Sampling Point 103 from the actual total effluent mass discharged. Results are compared to listed effluent limits when claiming a stormwater runoff mass allowance to determine compliance.
021	The monthly average effluent mass discharged after subtracting the Monthly Runoff Allowance at Sampling Point 104 from the actual total effluent mass discharged. Results are compared to listed effluent limits when claiming a stormwater runoff mass allowance to determine compliance.

2.2 Monitoring Requirements and Effluent Limitations

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

2.2.1 Sampling Point (Outfall) 001 - PROCESS WW OUTFALL

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD ₅ , Total	Daily Max	30 mg/L	3/Week	24-Hr Flow Prop Comp	
BOD ₅ , Total	Monthly Avg	15 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Daily Max	30 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Monthly Avg	20 mg/L	3/Week	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH ₃ -N) Total	Daily Max	9.0 mg/L	2/Week	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	5.6 mg/L	2/Week	24-Hr Flow Prop Comp	Limit applies during the months of May thru Sept.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
pH (Minimum)	Daily Min	4.0 su	Daily	Continuous	Monitoring for this parameter may be performed at the discharge from the mechanical plant to the constructed wetland. See 2.2.1.4 for allowed excursions.
pH (Maximum)	Daily Max	11 su	Daily	Continuous	Monitoring for this parameter may be performed at the discharge from the mechanical plant to the constructed wetland. See 2.2.1.4 for allowed excursions.
pH Total Exceedance Time Minutes	Monthly Total	446 minutes	Daily	Continuous	See 2.2.1.4 for allowed excursions.
pH Exceedances Greater Than 60 Minutes	Daily Max	0 Number	Daily	Continuous	See 2.2.1.4 for allowed excursions.
Dissolved Oxygen	Daily Min	4.0 mg/L	Daily	Grab	Monitoring for this parameter may be performed at the discharge from the mechanical plant to the constructed wetland.
Phosphorus, Total	Rolling 12 Month Avg	1.0 mg/L	2/Week	24-Hr Flow Prop Comp	See 2.2.1.2 and 2.2.1.3 for future water quality based phosphorus limits.
Temperature Maximum	Daily Max	86 deg F	3/Week	Continuous	Limit is effective April 1, 2016.
Chloride	Daily Max	590 mg/L	2/Week	24-Hr Flow Prop Comp	This limit applies from the date of permit issuance thru February, 2019.
Chloride	Weekly Avg	400 mg/L	2/Week	24-Hr Flow Prop Comp	This limit is effective beginning March 1, 2019.
Mercury, Total Recoverable	Daily Max	7.8 ng/L	Quarterly	Grab	
Acute WET		TU _a	See Listed Qtr(s)	24-Hr Flow Prop Comp	Monitor once a year in rotating quarters; see 2.2.1.5 for WET testing details.
Chronic WET		rTU _c	See Listed Qtr(s)	24-Hr Flow Prop Comp	Monitor once a year in rotating quarters; see 2.2.1.5 for WET testing details.
Oil & Grease (Hexane)		mg/L	2/Week	Grab	

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
COD		mg/L	2/Week	24-Hr Flow Prop Comp	
Sulfur, as Sulfide		mg/L	Monthly	Grab	
Phenols, Total		µg/L	Monthly	24-Hr Flow Prop Comp	
Chromium ⁺⁶		µg/L	Monthly	Grab	
Chromium, Total Recoverable		µg/L	Monthly	24-Hr Flow Prop Comp	
Arsenic, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Cadmium, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Copper, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Cyanide, Amenable		µg/L	Annual	Grab Comp	
Lead, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Selenium, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Silver, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		µg/L	Annual	24-Hr Flow Prop Comp	
Hardness, Total as CaCO ₃		mg/L	Annual	24-Hr Flow Prop Comp	
PAHs		µg/L	Annual	24-Hr Flow Prop Comp	See 2.2.1.6 for PAH compounds.
BHC, alpha		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Chlordane		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
4,4'-DDT		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
4,4'-DDE		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Heptachlorepoxyde		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Hexachlorobenzene		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Octachlorostyrene		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
PCB Total		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Dioxin, 2,3,7,8-TCDD		ng/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Dieldrin		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.
Toxaphene		µg/L	Once	24-Hr Flow Prop Comp	See 2.2.1.7 for BACs.

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.

2.2.1.2 Phosphorus Limitation(s)

Final Phosphorus Effluent Limitation: The final water quality based effluent limit for phosphorus is 0.225 mg/L as a monthly average, 0.075mg/L as a 6-month average, and 71 pounds/year unless:

- (A.) As part of the application for the next reissuance, or prior to filing the application, the permittee submits either: 1.) a watershed adaptive management plan and a completed Watershed Adaptive Management Request Form 3200-139; or 2.) an application for water quality trading; or 3.) an application for a variance; or 4.) new information or additional data that supports a recalculation of the numeric limitation; and
- (B) The Department modifies, revokes and reissues, or reissues the permit to incorporate a revised limitation before the expiration of the compliance schedule*.

If Adaptive Management or Water Quality Trading is approved as part of the permit application for the next reissuance or as part of an application for a modification or revocation and reissuance, the plan and specification submittal, construction, and final effective dates for compliance with the total phosphorus WQBEL may change in the reissued or modified permit. In addition, the numeric value of the water quality based effluent limit may change based on new information (e.g. a TMDL) or additional data. If a variance is approved for the next reissuance, interim limits and conditions will be imposed in the reissued permit in accordance with s. 283.15, Stats., and applicable regulations. A permittee may apply for a variance to the phosphorus WQBEL at the next reissuance even if the permittee did not apply for a phosphorus variance as part of this permit reissuance.

*Note: The Department will prioritize reissuances and revocations, modifications, and reissuances of permits to allow permittees the opportunity to implement adaptive management or nutrient trading in a timely and effective manner.

Note: If a water quality based effluent limit has taken effect in a permit, any increase in the limit is subject to s. NR 102.05(1) and ch. NR 207 Wis. Adm. Code.

Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable averaging periods are May through October and November through April.

2.2.1.3 Alternative Approaches to Phosphorus WQBEL Compliance

Rather than upgrading its wastewater treatment facility to comply with WQBELs for total phosphorus, the permittee may use Water Quality Trading or the Watershed Adaptive Management Option, to achieve compliance under ch. NR 217, Wis. Adm. Code, provided that the permit is modified, revoked and reissued, or reissued to incorporate any such alternative approach. A permittee may also implement an upgrade to its wastewater treatment facility in combination with Water Quality Trading or the Watershed Adaptive Management Option to achieve compliance, provided that the

permit is modified, revoked and reissued, or reissued to incorporate any such alternative approach. If the Final Compliance Alternatives Plan concludes that a variance will be pursued, the Plan shall provide information regarding the basis for the variance.

Submittal of Permit Application for Next Reissuance and Adaptive Management or Pollutant Trading Plan or Variance Application: The permittee shall submit the permit application for the next reissuance at least 6 months prior to expiration of this permit. If the permittee intends to pursue adaptive management to achieve compliance with the phosphorus water quality based effluent limitation, the permittee shall submit with the application for the next reissuance: a completed Watershed Adaptive Management Request Form 3200-139, the completed Adaptive Management Plan and final plans for any system upgrades necessary to meet interim limits pursuant to s. NR 217.18. If the permittee intends to pursue pollutant trading to achieve compliance, the permittee shall submit an application for water quality trading with the application for the next reissuance. If system upgrades will be used in combination with pollutant trading to achieve compliance with the final water quality-based limit, the reissued permit will specify a schedule for the necessary upgrades. If the permittee intends to seek a variance, the permittee shall submit an application for a variance with the application for the next reissuance.

2.2.1.4 Continuous pH Monitoring

The permittee shall maintain the pH of the discharge within the range of 6.0 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 6.0 to 9.0 s.u. shall not exceed 446 minutes in any calendar month;
- No individual pH excursion outside the range of 6.0 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 6.0 to 9.0 s.u. and the number of pH excursions outside the range of 6.0 to 9.0 that exceed 60 minutes in duration.

2.2.1.5 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Lake Superior water outside of Lake Superior Bay or reconstituted laboratory water

Instream Waste Concentration (IWC): 22%

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:** 88, 44, 22, 11, 5.5%, and any additional selected by the permittee.

WET Testing Frequency: Acute and Chronic Tests are required during the following quarters:

April 1—June 30, 2014; July 1—September 30, 2015; and October 1—December 31, 2016; January 1—March 31, 2017; April 1—June 30, 2018.

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

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

< 100, then $TU_a = 100 \div LC_{50}$. A chronic toxicity test shall be considered positive if the Relative Toxic Unit - Chronic (rTU_c) is greater than 1.0 for either species. The rTU_c shall be calculated as follows: If $IC_{25} \geq IWC$, then $rTU_c = 1.0$. If $IC_{25} < IWC$, then $rTU_c = IWC \div IC_{25}$.

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).

2.2.1.6 PAHs, Total Compounds

The effluent concentration of PAHs, total compounds, shall be calculated as the sum of the individual effluent concentrations of chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, phenanthrene and pyrene. Analysis shall be performed using EPA test method - SW-846 8310 (HPLC) or other approved test method with similar detection limits (such as EPA Method 8270 GC/MS).

2.2.1.7 Bioaccumulation Substances

Monitoring for bioaccumulating substances referenced by this footnote in Table 2.2.1 above shall be monitored once during calendar year 2018. Results shall be submitted on the discharge monitoring report and included with the next permit reissuance application.

Notification shall be provided in accordance with Standard Requirements condition for Planned Changes, if the permittee becomes aware of discharge of any of the substances listed in Table 2.2.1 above as persistent bioaccumulating substances identified by this footnote, either through effluent monitoring or other determinations regarding production processes which generate this wastewater. The notification shall include the concentration of the substance and the probable cause of its presence. Within twelve months of becoming aware of a discharge of any of the substances, the permittee shall conduct a study on the sources of the persistent bioaccumulating toxic substances referenced to this footnote and report to the Department those activities which the permittee could conduct to reduce to the maximum extent practicable the discharge of these substances.

2.2.2 Sampling Point (Outfall) 002 - STORMWATER RUNOFF

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Monthly	Estimated	
Oil & Grease (Hexane)	Daily Max	30 mg/L	Weekly	Grab	
Oil & Grease (Hexane)	Monthly Avg	15 mg/L	Weekly	Grab	

2.2.3 Sampling Point (Outfall) 003 - STORMWATER RUNOFF

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Monthly	Estimated	
Oil & Grease (Hexane)	Daily Max	30 mg/L	Weekly	Grab	
Oil & Grease (Hexane)	Monthly Avg	15 mg/L	Weekly	Grab	

2.2.4 Sampling Point (Outfall) 004 - HYDROSTATIC TEST WATER

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Estimated	
Oil & Grease (Hexane)	Daily Max	15 mg/L	Daily	Grab	
Suspended Solids, Total	Daily Max	30 mg/L	Daily	Grab	
Suspended Solids, Total	Monthly Avg	20 mg/L	Daily	Grab	
Dissolved Oxygen	Daily Min	4.0 mg/L	Daily	Grab	
pH Field	Daily Max	9.0 su	Daily	Grab	
pH Field	Daily Min	6.0 su	Daily	Grab	

2.2.5 Sampling Point (Outfall) 011 - ADJUSTED DAILY PROCESS WW

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)	Daily Max	153 lbs/day	Daily	Calculated	
COD	Daily Max	3774 lbs/day	2/Week	Calculated	
Phenols, Total	Daily Max	3.8 lbs/day	2/Week	Calculated	
Chromium, Total Recoverable	Daily Max	4.5 lbs/day	Monthly	Calculated	
Chromium ⁺⁶	Daily Max	0.33 lbs/day	Monthly	Calculated	

2.2.5.1 Categorical Effluent Limit Mass Allowances For Contaminated Stormwater Runoff

The calculated stormwater runoff mass allowances (reported on DMR designated Sample Point 103 for the Daily Allowance and Sample Point 104 for the Monthly Allowance) shall be subtracted from the total effluent mass discharge prior to comparing the effluent mass to the categorical based effluent limitations listed in Table 2.2.5 above and Table 2.2.6 below. The mass discharge adjusted for stormwater runoff allowance shall be reported on DMR designated Outfall 011 for Daily Max. and Outfall 021 for Monthly Avg.

2.2.6 Sampling Point (Outfall) 021 - ADJUSTED MONTHLY PROCESS WW

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)	Monthly Avg	82 lbs/day	Daily	Calculated	
COD	Monthly Avg	1958 lbs/day	2/Week	Calculated	
Phenols, Total	Monthly Avg	1.5 lbs/day	2/Week	Calculated	
Chromium, Total Recoverable	Monthly Avg	1.7 lbs/day	Monthly	Calculated	
Chromium ⁺⁶	Monthly Avg	0.13 lbs/day	Monthly	Calculated	

3 Schedules

3.1 Mercury Pollutant Minimization Program

The permittee shall continue to implement a pollutant minimization program as defined in s. NR 106.145(2), Wis. Adm. Code.

Required Action	Due Date
<p>Submit Annual Status Reports: The permittee shall submit to the Department an annual status report on the progress of the PMP as required by s. NR 106.145(7), Wis. Adm. Code. Submittal of the first annual status report is required by the Date Due.</p> <p>Note: If the permittee wishes to apply for an alternative mercury effluent limitation, that application is due with the application for permit reissuance by 6 months prior to permit expiration. The permittee should submit or reference the PMP plan as updated by the Annual Status Report or more recent developments as part of that application.</p>	12/31/2014
<p>Annual Hg PMP Status Report: The permittee shall submit to the Department an annual status report on the progress of the mercury PMP.</p>	12/31/2015
<p>Annual Hg PMP Status Report: The permittee shall submit to the Department an annual status report on the progress of the mercury PMP.</p>	12/31/2016
<p>Annual Hg PMP Status Report: The permittee shall submit to the Department an annual status report on the progress of the mercury PMP.</p>	12/31/2017
<p>Annual Hg PMP Status Report: The permittee shall submit to the Department an annual status report on the progress of the mercury PMP.</p>	12/31/2018

3.2 Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus

The permittee shall comply with the WQBELs for Phosphorus as specified. No later than 30 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification requirement.

Required Action	Due Date
<p>Operational Evaluation Report: The permittee shall prepare and submit to the Department for approval an operational evaluation report. The report shall include an evaluation of collected effluent data, possible source reduction measures, operational improvements or other minor facility modifications that will optimize reductions in phosphorus discharges from the treatment plant during the period prior to complying with final phosphorus WQBELs and, where possible, enable compliance with final phosphorus WQBELs by March 31, 2017. The report shall provide a plan and schedule for implementation of the measures, improvements, and modifications as soon as possible, but not later than March 31, 2017 and state whether the measures, improvements, and modifications will enable compliance with final phosphorus WQBELs. Regardless of whether they are expected to result in compliance, the permittee shall implement the measures, improvements, and modifications in accordance with the plan and schedule specified in the operational evaluation report.</p> <p>If the operational evaluation report concludes that the facility can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the permittee shall comply with the final phosphorus WQBEL by March 31, 2017, and is not required to comply with the milestones identified below for years 3 through 7 of this compliance schedule ('Preliminary Compliance Alternatives Plan', 'Final</p>	03/31/2015

<p>Compliance Alternatives Plan', 'Final Plans and Specifications' 'Treatment Plant Upgrade to Meet QBELs', 'Complete Construction, 'Achieve Compliance').</p> <p>STUDY OF FEASIBLE ALTERNATIVES - If the Operational Evaluation Report concludes that the permittee cannot achieve final phosphorus QBELs with source reduction measures, operational improvements and other minor facility modifications, the permittee shall initiate a study of feasible alternatives for meeting final phosphorus QBELs and comply with the remaining required actions of this schedule of compliance. If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final phosphorus QBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the Department may reopen and modify the permit to include an implementation schedule for achieving the final phosphorus QBELs sooner than April 1, 2021.</p>	
<p>Compliance Alternatives, Source Reduction, Improvements and Modifications Status: The permittee shall submit a 'Compliance Alternatives, Source Reduction, Operational Improvements and Minor Facility Modification' status report to the Department. The report shall provide an update on the permittee's: (1) progress implementing source reduction measures, operational improvements, and minor facility modifications to optimize reductions in phosphorus discharges and, to the extent that such measures, improvements, and modifications will not enable compliance with the QBELs, (2) status evaluating feasible alternatives for meeting phosphorus QBELs.</p>	03/31/2016
<p>Preliminary Compliance Alternatives Plan: The permittee shall submit a preliminary compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee's wastewater treatment facility is necessary to achieve final phosphorus QBELs, the submittal shall include a preliminary engineering design report.</p> <p>If the plan concludes Adaptive Management will be used, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 without the Adaptive Management Plan.</p> <p>If water quality trading will be undertaken, the plan must state that trading will be pursued.</p>	03/31/2017
<p>Final Compliance Alternatives Plan: The permittee shall submit a final compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee's wastewater treatment is necessary to meet final phosphorus QBELs, the submittal shall include a final engineering design report addressing the treatment plant upgrades, and a facility plan if required pursuant to ch. NR 110, Wis. Adm. Code.</p> <p>If the plan concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an engineering report addressing any treatment system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code.</p> <p>If the plan concludes water quality trading will be used, the submittal shall identify potential trading partners.</p> <p>Note: See 'Alternative Approaches to Phosphorus QBEL Compliance' in the Surface Water section of this permit.</p>	03/31/2018
<p>Progress Report on Plans & Specifications: Submit progress report regarding the progress of preparing final plans and specifications. Note: See 'Alternative Approaches to Phosphorus QBEL Compliance' in the Surface Water section of this permit.</p>	12/31/2018
<p>Final Plans and Specifications: Unless the permit has been modified, revoked and reissued, or reissued to include Adaptive Management or Water Quality Trading measures or to include a revised</p>	05/31/2019

<p>schedule based on factors in s. NR 217.17, Wis. Adm. Code, the permittee shall submit final construction plans to the Department for approval pursuant to s. 281.41, Stats., specifying treatment plant upgrades that must be constructed to achieve compliance with final phosphorus WQBELs, and a schedule for completing construction of the upgrades by the complete construction date specified below. (Note: Permit modification, revocation and reissuance, and reissuance are subject to s. 283.53(2), Stats.)</p> <p>Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	
<p>Treatment Plant Upgrade to Meet WQBELs: The permittee shall initiate construction of the upgrades. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Stats. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	08/01/2019
<p>Construction Upgrade Progress Report #1: The permittee shall submit a progress report on construction upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	03/31/2020
<p>Complete Construction: The permittee shall complete construction of wastewater treatment system upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	12/31/2020
<p>Achieve Compliance: The permittee shall achieve compliance with final phosphorus WQBELs. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.</p>	04/01/2021

3.3 Chloride Limit

The permittee shall take steps to achieve compliance with the final chloride water quality based limit by no later than March 1, 2019.

Required Action	Due Date
<p>Annual Chloride Progress Report: Submit an annual progress report that shall indicate which chloride source reduction measures have been implemented and resulting reductions in chloride. The report shall also include a calculated annual mass discharge of chloride based on chloride sampling and flow data. After the first progress report is submitted the permittee may submit a written request to the department to waive further annual progress reports, if compliance with the limit has been achieved. If after evaluating the progress of the source reduction measures, the department decides to accommodate the request, the department shall notify the permittee in writing that the subsequent annual reports are waived.</p>	03/31/2015
<p>Annual Chloride Progress Report #2: Submit a chloride progress report. In addition to the items listed above the report shall identify potential future actions to achieve and maintain compliance with the future limit.</p>	03/31/2016
<p>Annual Chloride Progress Report #3: Submit a chloride progress report and submit for approval any wastewater treatment units proposed to be installed to achieve the final chloride limit.</p>	03/31/2017
<p>Annual Chloride Progress Report #4 and Commence Construction: : Submit a chloride progress report and begin construction on any necessary wastewater treatment units.</p>	04/01/2018

Achieve Final Chloride Limit: Achieve compliance with the chloride limit of 400 mg/L.	03/01/2019
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4 Standard Requirements

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, except for s NR 205.07(1)(v) regarding bypasses which are specified below under the subsections titled ‘Bypassing’ and ‘Bypass Due to Essential Construction or Maintenance (Controlled Diversions)’. 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).

4.1 Reporting and Monitoring Requirements

4.1.1 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 principal executive officer, a ranking elected official or other duly authorized representative. 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.

4.1.2 Sampling and Testing Procedures

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

4.1.3 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.

4.1.4 Reporting of Monitoring Results

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

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

4.1.5 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings 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.

4.1.6 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.

4.2 System Operating Requirements

4.2.1 Noncompliance Notification

- 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 an unanticipated 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.
- A written report describing the noncompliance shall also be submitted to the Department's regional office within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of

noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

- The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

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**.

4.2.2 Bypassing

Except as provided in the subsection below titled 'Bypass Due to Essential Construction or Maintenance (Controlled Diversions)', any bypass of wastewater at the treatment works or overflow from the collection system is prohibited, and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats., unless all of the following occur:

- The bypass or overflow was unavoidable to prevent loss of life, personal injury, or severe property damage.
- There were no feasible alternatives to the bypass or overflow, such as the use of auxiliary treatment facilities, retention of untreated wastes, 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 or overflow which occurred during normal periods of equipment downtime or preventive maintenance.
- The permittee notifies the department of the unscheduled bypass or overflow. The permittee shall notify the department within 24 hours of initiation of the bypass or overflow occurrence by telephone, voicemail, fax or e-mail. Except for an approved blending event, within 5 days of conclusion of the bypass or overflow occurrence, the permittee shall submit to the department in writing, all of the following information:
 - Reason the bypass or overflow occurred, or explanation of other contributing circumstances that resulted in the overflow event. If the overflow or bypass is associated with wet weather, provide data on the amount and duration of the rainfall or snow melt for each separate event.
 - Date the bypass or overflow occurred.
 - Location where the bypass or overflow occurred.
 - Duration of the bypass or overflow and estimated wastewater volume discharged.
 - Steps taken or the proposed corrective action planned to prevent similar future occurrences.
 - Any other information the permittee believes is relevant.

4.2.3 Bypass Due to Essential Construction or Maintenance (Controlled Diversion)

A bypass which occurs due to essential construction or maintenance to assure efficient operation of the treatment works is allowed but only if the bypass complies with all effluent limitations in this permit. For these bypasses, any wastewater that is diverted around a treatment unit or treatment process shall be recombined with wastewater that is not diverted prior to discharge.

Any bypass due to essential maintenance or construction to assure efficient operation of the treatment works shall be documented in writing and the record shall be made available to the Department upon request.

4.2.4 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. The wastewater treatment facility shall be under the direct supervision of a state certified operator as required in s. NR 108.06(2), Wis. Adm. Code. 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.

4.2.5 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.

4.2.6 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.

4.2.7 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.

4.3 Surface Water Requirements

4.3.1 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.

4.3.2 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.]

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.

4.3.3 Effluent Temperature Requirements

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

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

Rate of Temperature Change Standard – Temperature of a water of the state or discharge to a water of the state may not be artificially raised or lowered at such a rate that it causes detrimental health or reproductive effects to fish or aquatic life of the water of the state.

4.3.4 Visible Foam or Floating Solids

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

4.3.5 Compliance with Phosphorus Limitation

Compliance with the concentration limitation for phosphorus shall be determined as a rolling twelve-month average and shall be calculated as follows:

First, determine the pounds of phosphorus for an individual month by multiplying the average of all the concentration values for phosphorus (in mg/L) for that month by the total flow for the month in Million Gallons times the conversion factor of 8.34.

Then, the monthly pounds of phosphorus determined in this manner shall be summed for the most recent 12 months and inserted into the numerator of the following equation.

Average concentration of P in mg/L = $\frac{\text{Total lbs of P discharged (most recent 12 months)}}{\text{Total flow (MG)}} \times 8.34$

Total flow in MG (most recent 12 months) X 8.34

The compliance calculation shall be performed each month with a reported discharge volume after substituting data from the most recent month(s) for the oldest month(s). A calculated value in excess of the concentration limitation will be considered equivalent to a violation of a monthly average.

4.3.6 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.

4.3.7 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 Watershed Management, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, which details the following:

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including some or all of the following actions:
 - (a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
 - (b) Identify the compound(s) causing toxicity
 - (c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
 - (d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

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

5 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Mercury Pollutant Minimization Program -Submit Annual Status Reports	December 31, 2014	12
Mercury Pollutant Minimization Program -Annual Hg PMP Status Report	December 31, 2015	12
Mercury Pollutant Minimization Program -Annual Hg PMP Status Report	December 31, 2016	12
Mercury Pollutant Minimization Program -Annual Hg PMP Status Report	December 31, 2017	12
Mercury Pollutant Minimization Program -Annual Hg PMP Status Report	December 31, 2018	12
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Operational Evaluation Report	March 31, 2015	12
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Compliance Alternatives, Source Reduction, Improvements and Modifications Status	March 31, 2016	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Preliminary Compliance Alternatives Plan	March 31, 2017	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Compliance Alternatives Plan	March 31, 2018	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Progress Report on Plans & Specifications	December 31, 2018	13
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Final Plans and Specifications	May 31, 2019	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Treatment Plant Upgrade to Meet WQBELs	August 1, 2019	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Construction Upgrade Progress Report #1	March 31, 2020	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Complete Construction	December 31, 2020	14
Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus - Achieve Compliance	April 1, 2021	14
Chloride Limit -Annual Chloride Progress Report	March 31, 2015	14
Chloride Limit -Annual Chloride Progress Report #2	March 31, 2016	14
Chloride Limit -Annual Chloride Progress Report #3	March 31, 2017	14
Chloride Limit -Annual Chloride Progress Report #4 and Commence Construction	April 1, 2018	14
Chloride Limit -Achieve Final Chloride Limit	March 1, 2019	15
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	16

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

Northern Region - Superior, 1701 North 4th Street, Superior, WI 54880