Village of Curtiss Public Noticed Permit Fact Sheet

General Information

Permit Number	WI-0031445-10-0
Permittee Name and Address	Village of Curtiss, 915 N Meridian, P.O. Box 97, Curtiss WI 54422-0097
Permitted Facility Name and Address	Curtiss Wastewater Treatment Facility, Pine Lane Avenue, Curtiss, WI 54422-0097
Permit Term	April 01, 2025 to March 31, 2030
Discharge Location	NW1/4, SE1/4, Section 32, T29N R1E, Town of Mayville, Clark County, WI
Receiving Water	unnamed wetland tributary to the E Fork of Popple River in Popple River Watershed of Black River Basin in Clark County
Stream Flow ($Q_{7,10}$)	0 cfs
Stream Classification	Limited Aquatic Life, Non-public Water-Supply
Discharge Type	Existing, Fill and Draw
Annual Average Design Flow (MGD)	0.112 MGD
Industrial or Commercial Contributors	Abbyland Pork Pack (meat packing plant) and Wisconsin's Drink LLC (producer of non-alcoholic "Old Fashioned" drinks)
Plant Classification	A4 - Ponds, Lagoons and Natural Systems; P - Total Phosphorus; SS - Sanitary Sewage Collection System
Approved Pretreatment Program?	N/A

Facility Description

The Village of Curtiss owns and operates the Curtiss Wastewater Treatment Facility (WWTF) to treat domestic waste from the Village and industrial waste from the Abbyland Pork meat packing plant and Wisconsin's Drink LLC. The annual average design flow of the facility is 0.112 million gallons per day (MGD) and the actual annual average influent flow in 2023 was 0.09 MGD. The WWTF consists of two aerated lagoons, three stabilization ponds, a rock filter and two cascade aerators. Effluent is discharged on a fill and draw basis to an unnamed wetland tributary to the East Fork of the Popple River. No significant operational changes occurred during the last permit term other than a pilot study for chemical addition for phosphorus removal. The permittee is currently using ferric sulfate for phosphorus removal. Significant effluent monitoring and/or limit changes in the upcoming permit term are as follows: 1) addition of acute WET testing three times in the permit term, 2) addition of a daily maximum ammonia limit, 3) addition of seasonal Escherichia coli (E. coli) monitoring during one year of the permit term, 4) removal of the chloride limit (monitoring remains), 5) addition of annual monitoring for total nitrogen, nitrite + nitrate nitrogen and total Kjeldahl nitrogen, 6) an increase in the monitoring frequencies for BOD, TSS, phosphorus, ammonia, pH and DO, 7) the conditional reapproval of a multi-discharger variance (MDV) for phosphorus and the reduction in the interim MDV limit, along with a schedule to meet that lower limit, and 8) the sample frequency for flow has been changed from "continuous" to "daily" for eDMR reporting purposes (this same change has been made at the influent). The sample frequency for BOD and TSS at the influent from the Village of Curtiss has been increased. Radium sludge monitoring has been removed. Clarification language has been added

notifying the permittee they must monitor sludge for List 2 nutrients and meet the requirements of List 3 (Pathogen Control) and List 4 (Vector Attraction Reduction) prior to landspreading if they remove sludge from the lagoon(s). A schedule has been included requiring the permittee submit a sludge management plan prior to removal and land application of sludge from the pond(s). Additionally, to quantitate the risk, PFAS sludge sampling has been included in the permit pursuant to ss. NR214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code. As schedule has also been included that requires the permittee conduct a leakage study on the lagoon/pond system.

Substantial Compliance Determination

Enforcement During Last Permit: SSOs occurred 04/18/2022 and 07/21/2022. The April overflow was two separate events, the first occurred due to a plug in the facility line. The second overflow occurred due to maintenance operations where a valve was exercised and a plug got sucked in to a pipe that plugged it. The July discharge was due to a decanting tube that came untied from a manhole and released partially digested waste onto the ground. A notice of noncompliance (NON) was sent for both occurrences. In May 2023 an NON was sent for failure to submit a facility plan addressing phosphorus on time following multiple extensions from the department. The facility has been waiting for Abbyland, the major industrial user in town, to make a decision regarding treatment to finalize a facility plan. In June the facility submitted an inadequate response, and another NON was issued in August 2023. Following this NON an abbreviated facility plan was submitted, as well as plans and specifications, and the facility has since received plan approval and returned to compliance.

After a desk top review of all Discharge monitoring reports, land application reports, compliance schedule items, and an inspection on 05/08/2023, Curtiss WWTF has been found to be in substantial compliance with their current permit.

Compliance determination made by Jenna Monahan on 01/22/2024.

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**
701	**Influent from Curtiss**: 0.090 MGD (2023)	Representative influent samples shall be collected at the influent force main in the blower building.
702	**Influent from Abbyland Pork**: 0.053 MGD (2023)	Representative influent samples shall be collected from the sampling station at the Abbyland Pork Plant.
001	**Effluent to unnamed wetland**: 0.153 (2023)	Representative effluent samples shall be collected at the flume manhole prior to discharge to the unnamed wetland.
002	**Lagoon Sludge** (Last removed & land applied in 2015- sludge removal is not planned in this permit term.)	Representative composite sludge samples shall be collected in 2026 and monitored for the parameters as listed in the table below. If the permittee plans to remove sludge, they shall monitor sludge for Lists 1, 2, 3 & 4 prior to land application. The Department shall be notified at least 30 days in advance of sludge removal so that appropriate monitoring forms can be provided. Approval of landspreading sites must be completed prior to sludge removal.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- INFLUENT PRIOR TO LAGOON

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	Weekly	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	Weekly	24-Hr Flow Prop Comp	

1.1.1 Changes from Previous Permit:

The sample frequency for flow has been changed from "continuous" to "daily" for eDMR reporting purposes. The monitoring frequency for BOD and TSS was increased from 2/month to weekly to match the increased effluent sample frequency.

1.1.2 Explanation of Limits and Monitoring Requirements

Monitoring of influent flow, BOD5 and total suspended solids is required by s. NR 210.04(2), Wis. Adm. Code, to assess wastewater strengths and volumes and to demonstrate the percent removal requirements in s. NR 210.05, Wis. Adm. Code, and in the Standard Requirements section of the permit. Curtiss wastewater treatment facility (WWTF) monitors the Abbyland Plant separately to ensure compliance with the local sewer ordinance is upheld and protect the operations of their treatment plant. Monitoring influent sources separately helps identify industrial wastewater that may result in higher influent BOD and TSS loadings. This can help a facility understand the amount of dilution they are getting and prepare the plant for any necessary operational adjustments as loadings come into the WWTF.

1.2 Sample Point Number: 702- INFLUENT FROM ABBYLAND PLANT

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	Daily	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	Daily	24-Hr Flow Prop Comp	

1.2.1 Changes from Previous Permit:

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

1.2.2 Explanation of Limits and Monitoring Requirements

Monitoring of influent flow, BOD5 and total suspended solids is required by s. NR 210.04(2), Wis. Adm. Code, to assess wastewater strengths and volumes and to demonstrate the percent removal requirements in s. NR 210.05, Wis. Adm. Code, and in the Standard Requirements section of the permit. Curtiss wastewater treatment facility monitors the Abbyland Plant separately to ensure compliance with the local sewer ordinance is upheld and protect the operations of their treatment plant. Monitoring influent sources separately helps identify industrial wastewater that may result in higher influent BOD and TSS loadings. This can help a facility understand the amount of dilution they are getting and prepare the plant for any necessary operational adjustments as loadings come into the Curtis WWTF.

2 Surface Water - Monitoring and Limitations

2.1 Sample Point Number: 001- EFFLUENT PRIOR TO WETLAND

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total	Weekly Avg	30 mg/L	Weekly	Grab	
BOD5, Total	Monthly Avg	20 mg/L	Weekly	Grab	
Suspended Solids, Total	Weekly Avg	30 mg/L	Weekly	Grab	
Suspended Solids, Total	Monthly Avg	20 mg/L	Weekly	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
pH Field	Daily Max	9.0 su	5/Week	Grab	
Dissolved Oxygen	Daily Min	4.0 mg/L	5/Week	Grab	
Nitrogen, Ammonia (NH3-N) Total	Daily Max	8.9 mg/L	2/Week	Grab	Daily max limit applies year-round
Nitrogen, Ammonia (NH3-N) Total	Monthly Avg	6.7 mg/L	2/Week	Grab	Monthly avg limit applies June, July & Aug
E. coli		#/100 ml	Weekly	Grab	Monitoring required May - Sept 2026
Chloride		mg/L	Monthly	Grab	
Phosphorus, Total	Monthly Avg	1.0 mg/L	Weekly	Grab	This is an interim limit effective through 03/31/2027. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total	Monthly Avg	0.6 mg/L	Weekly	Grab	This is an interim MDV

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
					limit effective 04/01/2027. See the MDV/Phosphorus subsections and phosphorus schedules.
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 calendar year on the Annual report form.
Nitrogen, Total Kjeldahl		mg/L	See Listed Qtr(s)	Grab	Monitoring required annually in specific quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Nitrite + Nitrate Total		mg/L	See Listed Qtr(s)	Grab	Monitoring required annually in specific quarters. See Nitrogen Series Monitoring section below.
Nitrogen, Total		mg/L	See Listed Qtr(s)	Calculated	Monitoring required annually in specific quarters. See Nitrogen Series Monitoring section below. Total Nitrogen shall be calculated as the sum of reported values for Total Kjeldahl Nitrogen and Total Nitrite + Nitrate Nitrogen.
Acute WET		TUa	See Listed Qtr(s)	Grab	See WET testing section in the permit
Chronic WET		TUc	See Listed Qtr(s)	Grab	See WET testing section in the permit

2.1.1 Changes from Previous Permit

Effluent limitations and monitoring requirements were evaluated for this permit term and the following significant changes were made from the previous permit: 1) addition of acute WET testing three times in the permit term, 2) addition of a daily maximum ammonia limit, 3) addition of seasonal *Escherichia coli* (*E. coli*) monitoring May – Sept of one year of the permit term, 4) removal of the chloride limit (monitoring remains), 5) addition of annual monitoring for total nitrogen, nitrite + nitrate nitrogen and total Kjeldahl nitrogen, 6) an increase in the monitoring frequencies for BOD, TSS, phosphorus, ammonia, DO and pH, 7) the conditional reapproval of a multi-discharger variance (MDV) for phosphorus and the reduction in the interim MDV limit, along with a schedule to meet that lower limit, and 8) the sample frequency for flow has been changed from "continuous" to "daily" for eDMR reporting purposes.

2.1.2 Explanation of Limits and Monitoring Requirements

Monitoring Frequencies- The Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term. Monitoring frequencies have been increased from 2/month to weekly for BOD, TSS and phosphorus, the ammonia frequency increased from 2/month to 2/week and the frequency for pH and DO has been increased from 2/month to 5/week.

Limits were determined for Curtiss's existing discharge to the unnamed wetland tributary to the E Fork of Popple River using chs. NR 102, 104, 105, 106, 207, 210, 212 and 217 of the Wisconsin Administrative Code (where applicable). For additional information on any of the limits see the December 2, 2024 memo from Ben Hartenbower to Holly Heldstab titled "Water Quality-Based Effluent Limitations for the Curtiss Wastewater Treatment Facility WPDES Permit No. WI-0031445".

Expression of Limits: Additional limits to comply with the expression of limits requirements in ss. NR 106.07 and NR 205.065(7), Wis. Adm. Codes, are not required due to the non-continuous nature of the discharge. Although the permittee operates as a fill and draw and therefore discharges on a non-continuous basis, historical discharge patterns indicate they discharge for at least one month of each quarter, if not two.

BOD, TSS, pH and DO: Categorical limits and WQBELs are included in the permit as outlined in ch. NR 210, Wis. Adm. Code. The effluent limitations for BOD5, Total Suspended Solids (TSS) and pH are carried over from the previous permit and are not subject to change at this time because the receiving water characteristics have not changed. The monitoring frequency for all these parameters increased in order to effectively characterize the effluent quality and variability, and to best determine compliance with effluent limitations.

Ammonia: Current acute and chronic ammonia toxicity criteria for the protection of aquatic life are included in Tables 2C and 4B of ch. NR 105, Wis. Adm. Code. Subchapter IV of ch. NR 106 establishes the procedure for calculating water quality based effluent limitations (WQBELs) for ammonia. The permittee had a monthly average ammonia limit in effective for part of the year in the last permit term. Due to an increase in effluent pH, daily maximum limits must be included for the entire year.

Disinfection/*E. Coli*/Fecal Coliform: Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying *E. coli* WPDES permit implementation procedures became effective May 1, 2020. The new rule requires that WPDES permits for facilities with required disinfection include monitoring for E. coli while facilities are disinfecting during the recreation period and establish effluent limitations for *E. coli* established in s. NR 210.06 (2), Wis. Adm Code. The administrative code rule changes included the following actions: revised the bacteria water quality criteria from fecal coliform to *E. coli* to protect recreation in ch. NR 102, Wis. Adm. Code.; removed fecal coliform criteria for certain individual waters from ch. NR 104, Wis. Adm. Code.; revised permit requirements for publicly and privately owned

sewage treatment works in ch. NR 210, Wis. Adm. Code.; and, updated approved analytical methods for bacteria in ch. NR 219, Wis. Adm. Code.

Although disinfection is not required, seasonal monitoring (May-Sept) for *E. coli* has been included for one year of the permit term. Whenever lagoon detention time is 180 days or longer, no risk is assumed to pose a threat to human and animal health (NR 210.06(3)(h), Wis. Adm. Code) and no disinfection of effluent is required. Although we expect that effluent will be detained in the ponds for a period greater than 180 days, monitoring for *E. coli* is required to confirm.

Chloride: Chloride limits have been removed from the permit, however monthly monitoring remains in the permit. See the limits memo referenced above for additional information.

Phosphorus: Phosphorus rules became effective December 1, 2010 per NR 217, Wis. Adm. Code, that required the permittee to comply with water quality based effluent limits (WQBELs) for total phosphorous. The final phosphorus WQBELs (0.225 monthly average and 0.075 6-month average) were to become effective as scheduled unless a variance was granted. For this permit term, the permittee has re-applied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on February 6, 2017 for a 10-year duration. Curtiss's MDV application was conditionally approved by the DNR on October 2, 2024. The permittee qualifies for the MDV because it is an existing source and a major facility upgrade is needed to comply with the applicable phosphorus WQBELs, thereby creating a financial burden. The interim monthly average highest attainable condition (HAC) limit of 1.0 mg/L applies at the permit effective date. A compliance schedule is included in the permit to bring the permittee into compliance with next step down in an interim MDV limit of 0.6 mg/L, which becomes effective 04/01/2027.

Conditions of the MDV require the permittee to optimize phosphorus removal throughout the permit term, comply with interim limits and make annual payments to participating county(s) by March 1 of each year based on the pounds of phosphorus discharged during the previous year in excess of the specified target value. A reopener clause is included in the permit to address the current MDV's expiration date, as a permit action may be required to update or remove variance provisions if the MDV is altered or unavailable after February 6, 2027.

The "price per pound" value is $50.00 adjusted for CPI annually during the first quarter as defined by s. 283.16(8)(a)2, Wis. Stats and takes effect for reissued permits with effective dates starting April 1. This may differ from the "price per pound" that is public noticed; however, the "price per pound" is set upon reissuance and is applicable for the entire permit term. The participating county(s) uses these payments to implement non-point source phosphorus control strategies at the watershed level.

Total Nitrogen Monitoring (NO2+NO3, TKN and Total N)- The Department has included effluent monitoring for Total Nitrogen in the permit through the authority under §§ 283.55(1)(e), Wis. Stats., which allows the department to require the permittee to submit information necessary to identify the type and quantity of any pollutants discharged from the point source, and through s. NR 200.065(1)(h), Wis. Adm. Code, which allows for this monitoring to be collected during the permit term. More information on the justification to include total nitrogen monitoring in wastewater permits can be found in the "Guidance for Total Nitrogen Monitoring in Wastewater Permits" dated October 1, 2019. Annual tests are scheduled in the following quarters:

- 2nd quarter (April – June) 2025
- 3rd quarter (July – Sept) 2026
- 1st quarter (Jan – March) 2027
- 4th quarter (Oct – Dec) 2028
- 2nd quarter (April – June) 2029

Whole Effluent Toxicity- Whole effluent toxicity (WET) testing requirements and limits (if applicable) are determined in accordance with ss. NR 106.08 and NR 106.09 Wis. Adm. Code, as revised August 2016. (See the current version of the Whole Effluent Toxicity Program Guidance Document and checklist and WET information, guidance and test methods at http://dnr.wi.gov/topic/wastewater/wet.html).

Acute WET tests are required in the following quarters:

- 1st quarter (Jan – March) 2026
- 3rd quarter (July – Sept) 2028
- 2nd quarter (April – June) 2029

Chronic WET tests are required during the following quarters:

- 1st quarter (Jan – March) 2026
- 2nd quarter (April – June) 2029

PFOS and PFOA: NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. Pursuant to s. NR 106.98(3)(b), Wis. Adm. Code, the department evaluated the need for PFOS and PFOA monitoring taking into consideration the presence of potential PFOS or PFOA industrial wastes, remediation sites and other potential sources of PFOS or PFOA. Based on information available at the time the permit was drafted, the department has determined the permittee does not need to sample for PFOS or PFOA as part of this permit reissuance. The department may re-evaluate the need for sampling at the next permit reissuance if new information becomes available that suggests PFOS or PFOA may be present in the discharge.

3 Land Application - Monitoring and Limitations

Municipal Sludge Description						
Sample Point	**Sludge Class (A or B)**	**Sludge Type (Liquid or Cake)**	**Pathogen Reduction Method**	**Vector Attraction Method**	**Reuse Option**	**Amount Reused/Disposed (Dry Tons/Year)**
002	B	Liquid	The permittee hasn't removed sludge from the ponds since 2015 and does not anticipate removing sludge this permit term.			
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No Priority pollutant scans are required once every 10 years at facilities with design flows between 5 MGD and 40 MGD, and once every 5 years if design flow is greater than 40 MGD.						

3.1 Sample Point Number: 002- LAGOON SLUDGE

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Once	Composite	
Arsenic Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Arsenic Dry Wt	High Quality	41 mg/kg	Once	Composite	
Cadmium Dry Wt	Ceiling	85 mg/kg	Once	Composite	
Cadmium Dry Wt	High Quality	39 mg/kg	Once	Composite	
Copper Dry Wt	Ceiling	4,300 mg/kg	Once	Composite	
Copper Dry Wt	High Quality	1,500 mg/kg	Once	Composite	
Lead Dry Wt	Ceiling	840 mg/kg	Once	Composite	
Lead Dry Wt	High Quality	300 mg/kg	Once	Composite	
Mercury Dry Wt	Ceiling	57 mg/kg	Once	Composite	
Mercury Dry Wt	High Quality	17 mg/kg	Once	Composite	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Once	Composite	
Nickel Dry Wt	Ceiling	420 mg/kg	Once	Composite	
Nickel Dry Wt	High Quality	420 mg/kg	Once	Composite	
Selenium Dry Wt	Ceiling	100 mg/kg	Once	Composite	
Selenium Dry Wt	High Quality	100 mg/kg	Once	Composite	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Once	Composite	
Zinc Dry Wt	High Quality	2,800 mg/kg	Once	Composite	
Nitrogen, Total Kjeldahl		Percent	Per Application	Composite	
Nitrogen, Ammonia (NH3-N) Total		Percent	Per Application	Composite	
Phosphorus, Total		Percent	Per Application	Composite	
Phosphorus, Water Extractable		% of Tot P	Per Application	Composite	
Potassium, Total Recoverable		Percent	Per Application	Composite	
PCB Total Dry Wt	Ceiling	50 mg/kg	Once	Composite	
PCB Total Dry Wt	High Quality	10 mg/kg	Once	Composite	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
PFOA + PFOS		ug/kg	Once	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Once	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

3.1.1 Changes from Previous Permit:

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

List 2 Nutrient monitoring – Monitoring for list 2 (nutrients) is highly recommended at the same time as the monitoring of List 1 (metals) in year 2 of the permit. Results will assist in the determination of the acres needed for land application of sludge should it be necessary.

Change in form submittal – In prior permit reissuances when it has been noted in the application that sludge would not be removed during the permit term, the department required sampling during the second year of the permit term and the sludge characteristic report (3400-049) would be generated only during that year. Due to moving to electronic submittal of forms via Switchboard, forms 3400-049 ("Characteristics Report"), 3400-052 ("Other Methods of Disposal") and 3400-055 ("Annual Land Application") will now be generated by the department and the permittee will be required to submit all three reports each year of the permit term. This change was adopted to provide the permittee flexibility because many lagoon desludging projects can be unexpected, are delayed or staggered over multiple years. Additionally, it is used to officially report that no land application of sludge has occurred, and annual submittal of the forms is required per the standard requirements section.

PFAS – Monitoring for PFAS has been added once during the permit term pursuant s. NR 204.06(2)(b)9., Wis. Adm. Code.

Radium-226 monitoring has been removed because the permittee did not have a sample result for radium-226 above 2.0 pCi/L in their drinking water during the last permit term.

3.1.2 Explanation of Limits and Monitoring Requirements

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

PFAS- The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA is currently developing a risk assessment to determine future land application rates and expects to release this risk assessment by the end of 2024. In the interim, the department has developed the "Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS."

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department's implementation of EPA's

recommendations. To quantitate this risk, PFAS sampling has been included in this WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

4 Schedules

4.1 Phosphorus Multi-Discharger Variance Interim Limit (0.6 mg/L)

This compliance schedule requires the permittee to achieve compliance with the specified MDV interim effluent limit in accordance with s. 283.16(6), Wis. Stats., by the due date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of phosphorus with conclusions regarding compliance. Included in the report shall be an action plan that details the permittee will comply with the 0.6 mg/L monthly average interim MDV limit.	06/30/2025
Initiate Actions: Initiate actions identified in the plan.	03/31/2026
Progress Report: The permittee shall submit a progress report on complying with the 0.6 mg/L phosphorus limit.	09/30/2026
Complete Actions: Complete actions identified in the plan and achieve compliance with the specified interim effluent limit with the phosphorus interim effluent limit of 0.6 mg/L. The limit becomes effective 04/01/2027.	03/31/2027

Explanation of Schedule: Subsection 283.16(6), Wis. Stats., establishes required interim phosphorus effluent limits that must be met for multi-discharger variance (MDV) eligibility. The facility has indicated that they cannot meet an interim limit of 0.6 mg/L without a facility upgrade. The schedule above provides the permittee two years to comply with that limit. The length of the compliance schedule will allow the permittee to complete the upgrade to their chemical feed system to comply with code requirements, as well as make the operational adjustments that are necessary to contribute to effluent phosphorus levels.

4.2 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 ($64.75 per pound)] or $640,000, whichever is less. See the payment calculation steps in the Surface Water section. 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 0.2 mg/L as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is $50.00 adjusted for CPI.	03/01/2025
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total	03/01/2026

amount remitted to the participating counties.	
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2027
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2028
Annual Verification of Payment #5: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2029
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.	

Explanation of County Payment Schedule: Subsection 283.16(6)(b), Wis. Stats., requires permittees that have received approval for the multi-discharger variance (MDV) to implement a watershed project that is designed to reduce non-point sources of phosphorus within the HUC 8 watershed in which the permittee is located. The permittee has selected the "Payment to Counties" watershed option described in s. 283.16(8), Wis. Stats. Under this option the permittee shall make annual payment(s) to participating county(s) that are calculated based on the amount of phosphorus actually discharged during a calendar year in pounds per year less the amount of phosphorus that would have been discharged had the permittee discharged phosphorus at a target value concentration of 0.2 mg/L. The pounds of phosphorus discharged in excess of the target value is multiplied by a per pound phosphorus charge that will equal $64.75 per pound. This schedule requires the permittee to submit Form 3200-151 to the Department indicating the total amount remitted to the participating county(s).

4.3 Phosphorus Schedule - Continued Optimization

The permittee is required to optimize performance to control phosphorus discharges per the following schedule.

Required Action	Due Date
Optimization: The permittee shall continue to implement the optimization plan as previously approved to optimize performance to control phosphorus discharges. Submit a progress report on optimizing removal of phosphorus by the Due Date.	12/31/2025
Progress Report #2: Submit a progress report on optimizing removal of phosphorus.	12/31/2026
Progress Report #3: Submit a progress report on optimizing removal of phosphorus.	12/31/2027
Progress Report #4: Submit a progress report on optimizing removal of phosphorus.	12/31/2028
Progress Report #5: Submit a progress report on optimizing removal of phosphorus.	12/31/2029

Explanation of Continued Optimization Schedule: Per s. 283.16(6)(a), Wis. Stats. the Department may include a requirement that the permittee optimize the performance of a point source in controlling phosphorus discharges, which may be necessary to achieve compliance with multi-discharger variance interim limits. This compliance schedule requires the permittee to continue to implement the optimization plan that was approved during the previous permit term.

4.4 Sludge Management Plan

Required Action	Due Date
Submit a Sludge Management Plan: The permittee shall submit a management plan for approval if removal of sludge will occur during this permit term. The plan shall demonstrate compliance with ch. NR 204, Wis. Adm. Code and at minimum address 1) How and where is sludge sampled; 2) Available sludge storage details and location(s); 3) How will the sludge be removed with details on volume, characterization and how will the treatment plant continue to function during the drawdown; 4) Describe the type of transportation and spreading vehicles and loading and unloading practices; 5) Identify approved land application sites, apply for needed sites, site limitations, total acres needed and vegetative cover management; 6) Specify record keeping procedures including site loading; 7) Address contingency plans for adverse weather and odor/nuisance abatement; and 8) Include any other pertinent information such as other disposal options that may be used or specifications of any pretreatment processes Once approved, all sludge management activities shall be conducted in accordance with the plan. Any changes to the plan must be approved by the Department prior to implementing the changes. No desludging may occur unless approval from the Department is obtained. Daily logs shall be kept that record where the sludge has been disposed. The plan is due at least 60 days prior to desludging.	

Explanation of Sludge Management Plan Schedule: If the lagoons are to be de-sludged during this permit term, a management plan is needed to show compliance with ch NR 204, Wis. Adm. Code that clearly explains how the sludge will be safely removed, what contingencies are in place, the type of equipment that will be used and how the sludge will be land applied to ensure the proper precautions are in place to prevent any negative impacts to surface water or groundwater.

4.5 Groundwater Elevation Depression Pilot Study and Lagoon Leakage Study

Required Action	Due Date
Groundwater Elevation Depression Pilot and Lagoon Leakage Progress report: Permittee shall provide a progress report of the groundwater elevation depression pilot and lagoon leakage study.	09/30/2025
Groundwater Pilot Results: Permittee shall provide a final report summarizing the groundwater elevation depression pilot test results and lagoon leakage test results. As part of this study the release of wastewater from the lagoons needs to be characterized. Pollutants should include at a minimum phosphorus, the nitrogen series, chloride and BOD5.	03/31/2026
Facility Plan: If the department determines as part of the review of the groundwater pilot results that there is potential for groundwater impacts, the permittee shall submit a facility plan to address contamination concerns and lagoon groundwater separation issues.	12/31/2026
Final Plans and Specifications: Submit plans and specifications for treatment plant modifications that address replacement/repair of the leaking stabilization pond and lagoon-groundwater separation compliance issues.	03/31/2027
Leaking Stabilization Pond Construction Contracts: Construction contracts to repair the leaking stabilization pond and lagoon-groundwater separation compliance issues shall be awarded.	09/30/2027
Leaking Stabilization Pond Construction Start Date: The permittee shall start construction to address the leaking stabilization pond and lagoon-groundwater separation compliance issues per the	06/30/2028

approved plans and specifications.	
Leaking Stabilization Pond Construction Completion: The permittee shall complete construction to address the leaking stabilization pond and lagoon-groundwater separation compliance issues.	12/31/2028

Explanation of Schedule: Curtiss Wastewater Treatment Facility does not meet the requirements outlined in Wis. Adm Code NR 110.24 (3)(b) for groundwater clearance to lagoon bottom. The department is requiring a lagoon leakage study with pollutant characterization to ensure that no groundwater contamination is occurring. This compliance schedule addresses these issues and will bring the permittee into substantial compliance.

Other Comments

Publishing Newspaper: The Tribune-Phonograph, PO Box 677, Abbotsford, WI 54405-0677

Attachments

- Water Quality Based Effluent Limits: December 2, 2024 memo from Ben Hartenbower to Holly Heldstab titled "Water Quality-Based Effluent Limitations for the Curtiss Wastewater Treatment Facility WPDES Permit No. WI-0031445"
- MDV Evaluation Checklist, completed by Matt Claucherty, dated 10/02/2024
- MDV Conditional Approval Letter, completed by Matt Claucherty, dated 10/02/2024

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Holly Heldstab, Wastewater Specialist **Date:** January 14, 2024