



WPDES PERMIT

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

Seneca Foods Corporation Mayville

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

to

**an Unnamed tributary of the East Branch of the Rock River in the East Branch Rock River Watershed (UR13)
in the Upper Rock River Basin and an indirect Discharge to Groundwaters of the Rock River Drainage Basin**

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 _____
Lisa Creegan
Wastewater Field Supervisor

Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - June 01, 2026

EXPIRATION DATE - March 31, 2031

TABLE OF CONTENTS

1 SURFACE WATER REQUIREMENTS	1
1.1 SAMPLING POINT(S)	1
1.2 MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS	1
1.2.1 <i>Sampling Point (Outfall) 013 - North Drain Tile</i>	1
2 LAND TREATMENT REQUIREMENTS	10
2.1 SAMPLING POINT(S)	10
2.2 MONITORING REQUIREMENTS AND LIMITATIONS	10
2.2.1 <i>Sampling Point (Outfall) 001 - SPRAY IRRIGATION, Spray Irrigation</i>	10
3 GROUNDWATER REQUIREMENTS	13
3.1 MONITORING REQUIREMENTS AND LIMITATIONS	13
3.1.1 <i>Groundwater Monitoring System for Spray Fields B, C, D, E and F</i>	13
3.1.2 <i>Groundwater Monitoring System for the Spray Field G</i>	14
4 LAND APPLICATION REQUIREMENTS	16
4.1 SAMPLING POINT(S)	16
4.2 MONITORING REQUIREMENTS AND LIMITATIONS	16
4.2.1 <i>Sampling Point (Outfall) 003 – Wastewater/Silage Leachage</i>	16
4.2.2 <i>Sampling Point (Outfall) 004 – Vegetable Byproduct Solids</i>	18
5 SCHEDULES	20
5.1 ANNUAL WATER QUALITY TRADING (WQT) REPORT	20
5.2 CHLORIDE SOURCE REDUCTION MEASURES (SRMS) FOR GROUNDWATER DISCHARGES	20
5.3 LAND TREATMENT MANAGEMENT PLAN	21
5.4 LAND APPLICATION MANAGEMENT PLAN	21
6 STANDARD REQUIREMENTS	22
6.1 REPORTING AND MONITORING REQUIREMENTS	22
6.1.1 <i>Monitoring Results</i>	22
6.1.2 <i>Sampling and Testing Procedures</i>	22
6.1.3 <i>Recording of Results</i>	22
6.1.4 <i>Reporting of Monitoring Results</i>	23
6.1.5 <i>Records Retention</i>	23
6.1.6 <i>Other Information</i>	23
6.1.7 <i>Reporting Requirements – Alterations or Additions</i>	23
6.2 SYSTEM OPERATING REQUIREMENTS	24
6.2.1 <i>Noncompliance Reporting</i>	24
6.2.2 <i>Bypass</i>	24
6.2.3 <i>Scheduled Bypass</i>	24
6.2.4 <i>Controlled Diversions</i>	25
6.2.5 <i>Proper Operation and Maintenance</i>	25
6.2.6 <i>Operator Certification</i>	25
6.2.7 <i>Spill Reporting</i>	25
6.2.8 <i>Planned Changes</i>	25
6.2.9 <i>Duty to Halt or Reduce Activity</i>	26
6.3 SURFACE WATER REQUIREMENTS	26
6.3.1 <i>Permittee-Determined Limit of Quantitation Incorporated into this Permit</i>	26
6.3.2 <i>Appropriate Formulas for Effluent Calculations</i>	26
6.3.3 <i>Effluent Temperature Requirements</i>	26
6.3.4 <i>Visible Foam or Floating Solids</i>	27
6.3.5 <i>Surface Water Uses and Criteria</i>	27
6.3.6 <i>Compliance with Phosphorus Limitation</i>	27

6.3.7 <i>Whole Effluent Toxicity (WET) Monitoring Requirements</i>	27
6.3.8 <i>Whole Effluent Toxicity (WET) Identification and Reduction</i>	28
6.4 LAND TREATMENT REQUIREMENTS FOR INDUSTRIAL DISCHARGES	28
6.4.1 <i>Formulas for Land Treatment Calculations</i>	28
6.4.2 <i>Chloride Requirements for Land Treatment Systems</i>	29
6.4.3 <i>Nitrogen Loading Requirements for Spray Irrigation</i>	29
6.4.4 <i>Ponding</i>	29
6.4.5 <i>Runoff</i>	29
6.4.6 <i>Seasonal Irrigation Restriction</i>	29
6.4.7 <i>Irrigation Management Plan</i>	29
6.5 GROUNDWATER STANDARD REQUIREMENTS	30
6.5.1 <i>Application of NR 140 to Substances Discharged</i>	30
6.5.2 <i>Groundwater Sampling</i>	30
6.5.3 <i>Indicator Parameter Preventive Action Limits and Alternative Concentration Limits</i>	30
6.5.4 <i>Groundwater Monitoring Forms</i>	30
6.5.5 <i>Notification of Attaining or Exceeding Groundwater Quality Standards</i>	30
6.5.6 <i>Preventive Action Limit (PAL) Exceedance</i>	30
6.5.7 <i>Enforcement Standard (ES) Exceedance Within the Design Management Zone</i>	31
6.5.8 <i>Enforcement Standard Exceedance Outside the Design Management Zone</i>	31
6.5.9 <i>New Monitoring Wells Installed During the Current Permit-Term</i>	31
6.6 LAND APPLICATION REQUIREMENTS	31
6.6.1 <i>Land Application Characteristic Report</i>	31
6.6.2 <i>Annual Land Application Report</i>	31
6.6.3 <i>Other Methods of Disposal or Distribution Report</i>	32
6.6.4 <i>Land Application Site Approval</i>	32
6.6.5 <i>Operating Requirements/Management Plan</i>	32
6.6.6 <i>Chloride Requirements for Liquid Wastes and By-Product Solids</i>	32
6.6.7 <i>Nitrogen Requirements for Liquid Wastes and By-Product Solids and Sludges</i>	32
6.6.8 <i>Ponding</i>	33
6.6.9 <i>Runoff</i>	33
6.6.10 <i>Soil Incorporation Requirements</i>	33
6.6.11 <i>Field Stockpiles</i>	33
6.6.12 <i>By-Product Storage Sites</i>	33
6.6.13 <i>Annual Inspections-Stacking Pads and Leachate Containment</i>	34
6.6.14 <i>Additional Requirements from ch. NR 214, Wis. Adm. Code</i>	34
7 SUMMARY OF REPORTS DUE	35

1 Surface Water Requirements

1.1 Sampling Point(s)

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

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
013	Surface Water: North drain tile discharge located in Spray Field G. Sample taken from the pump valve prior to discharge to the waterway. Flow estimated by pump run time.

1.2 Monitoring Requirements and Effluent Limitations

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

1.2.1 Sampling Point (Outfall) 013 - North Drain Tile

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Daily	Estimated	
BOD ₅ , Total	Daily Max	10 mg/L	Weekly	Grab	
BOD ₅ , Total	Monthly Avg	10 mg/L	Weekly	Grab	
BOD ₅ , Total	Daily Max	449 lbs/day	Weekly	Calculated	
BOD ₅ , Total	Monthly Avg	292 lbs/day	Weekly	Calculated	
BOD ₅ , Total	Annual Avg	201 lbs/day	Weekly	Calculated	
Suspended Solids, Total	Daily Max	40 mg/L	Weekly	Grab	Effective upon reissuance and this limit will be retained beyond the effective date of the final limits as it represents a minimum control level.
Suspended Solids, Total	Weekly Avg	30 mg/L	Weekly	Grab	Effective upon reissuance and this limit will be retained beyond the effective date of the final limits as it represents a minimum control level.
Suspended Solids, Total	Monthly Avg	20 mg/L	Weekly	Grab	Effective upon reissuance and this limit will be retained beyond the effective date of the final limits as it represents a minimum control level.
Suspended Solids, Total	Annual Avg	423 lbs/day	Weekly	Calculated	

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Suspended Solids, Total		lbs/day	Weekly	Calculated	Report daily mass discharged using Equation 1a. in the Water Quality Trading (WQT) section.
WQT Credits Used (TSS)		lbs/month	Monthly	Calculated	Report WQT TSS Credits used per month using Equation 3c. in the Water Quality Trading (WQT) section. Available TSS Credits are specified in Table 1 and in the approved Water Quality Trading Plan.
WQT Computed Compliance (TSS)	Daily Max	5.67 lbs/day	Monthly	Calculated	Report the WQT TSS Computed Compliance value using Equation 5a. in the Water Quality Trading (WQT) section. Values entered on the last day of each week.
WQT Computed Compliance (TSS)	Monthly Avg	3.46 lbs/day	Monthly	Calculated	Report the WQT TSS Computed Compliance value using Equation 5b. in the Water Quality Trading (WQT) section. Value entered on the last day of the month.
WQT Credits Used (TSS)	Annual Total	17,060 lbs/yr	Annual	Calculated	The sum of total monthly credits used may not exceed Table 1 values listed.
pH Field	Daily Min	6.0 su	Daily	Grab	
pH Field	Daily Max	9.0 su	Daily	Grab	
Dissolved Oxygen	Daily Min	6.3 mg/L	Daily	Grab	
Chloride		mg/L	Weekly	Grab	Monitoring only in 2030.
Phosphorus, Total	Monthly Avg	0.7 mg/L	Weekly	Grab	Effective upon reissuance and this limit will be retained beyond the effective date of the final limits as it represents a minimum control level. See Water Quality Trading (WQT) sections for more information.
Phosphorus, Total		lbs/day	Weekly	Calculated	Report daily mass discharged using Equation 1a. in the Water Quality Trading (WQT) section.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
WQT Credits Used (TP)		lbs/month	Monthly	Calculated	Report WQT TP Credits used per month using Equation 2c. in the Water Quality Trading (WQT) section. Available TP Credits are specified in Table 2 and in the approved Water Quality Trading Plan.
WQT Computed Compliance (TP)	Monthly Avg	0.225 mg/L	Monthly	Calculated	Report the WQT TP Computed Compliance value using Equation 4a. in the Water Quality Trading (WQT) section. Value entered on the last day of the month.
WQT Computed Compliance (TP)	6-Month Avg	0.075 mg/L	Monthly	Calculated	Compliance with the six-month average limit is evaluated at the end of the six-month period on June 30 and Dec 31.
WQT Computed Compliance (TP)	6-Month Avg	0.02 lbs/day	Monthly	Calculated	Report the WQT TP Computed Compliance value using Equation 4b. in the Water Quality Trading (WQT) section. Value entered on the last day of the month. Compliance with the six-month average limit is evaluated at the end of the six-month period on June 30 and Dec 31.
WQT Credits Used (TP)	Annual Total	53.2 lbs/yr	Annual	Calculated	The sum of total monthly credits used may not exceed Table 2 values listed.
Acute WET		TU _a	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET section.
Chronic WET		TU _c	See Listed Qtr(s)	24-Hr Flow Prop Comp	See WET section.

1.2.1.0 Total Suspended Solids (TSS) Water Quality Trading (WQT)

The permittee may use water quality trading to demonstrate compliance with WQBELs for total suspended solids of 5.67 lbs/day daily maximum and 3.46 lbs/day monthly average. Pollutant reduction credits for TSS are available as specified in Water Quality Trading Plan WQT-2026-0005 or approved amendments thereof.

Table 1. Available TSS Credits per WQT-2026-0005

Year	Available TSS Credits (lbs/yr) – Interim	Available TSS Credits (lbs/yr) – Long Term	Available TSS Credits (lbs/yr) – Total
2026	0	17,060	17,060
2027	0	17,060	17,060
2028	0	17,060	17,060
2029	0	17,060	17,060
2030*	0	17,060	17,060

*In the event that this permit expires and is administratively continued beyond the year(s) specified in the above table, 17,060 lbs/yr of credit will be available in subsequent years until the permit is reissued, modified, or revoked.

Only those pollutant reduction credits established by a water quality trading plan approved by the Department may be used by the permittee to demonstrate compliance with the WQBELs identified in this subsection. If the permittee wishes to use pollutant reduction credits not identified in an approved water quality trading plan, the permittee must amend the plan or develop a new plan and obtain Department approval of the amended or new plan prior to use of the new pollutant reduction credits. Prior to Department approval, the amended or new water quality trading plan will be subject to notice and opportunity for public comment. Any change in the number of available credits requires a permit modification.

In the event pollutant reduction credits as defined in the approved water quality trading plan are no longer generated, the permittee shall comply with the WQBELs for TSS contained in this subsection. The sum of available interim and long-term credits shown in Table 1 may be used to demonstrate compliance for a given year. Interim credits are subject to duration limits and may not be used past the duration defined in Water Quality Trading Plan WQT-2026-0005.

1.2.1.1 Demonstrating Compliance with TSS WQBELs Using Water Quality Trading

Use the following methods to demonstrate compliance with the TSS WQBELs contained in the Water Quality Trading subsection above.

TOTAL POLLUTANT DISCHARGED (TSS)

Use the following equations to calculate the amount of pollutant discharged for Daily Max TSS [lbs/day] and Monthly Avg TSS [lbs/day].

$\text{TSS Discharged [lbs/day]} = \text{TSS Discharged [mg/L]} \times \text{Daily Flow [MGD]} \times 8.34 \qquad \qquad \qquad (\text{Eq. 1a.})$

Monthly Avg = Σ daily results \div # of results (Eq. 1b.)

WQT CREDITS USED (TSS)

Use the following method to calculate the credits to be used expressed as a mass in lbs/month:

WQT TSS Credits Needed [lbs/day] = Monthly Avg TSS [lbs/day] – 3.46 lbs/day (Eq. 3a.)

For each day,

WQT TSS Credits Needed [lbs/day] = Daily Maximum TSS [lbs/day] – 5.67 lbs/day (Eq. 3b.)

Using values calculated in the above Equations 3a and 3b, calculate the “WQT TSS Credits Needed” for the entire month in lbs/month. If multiple weeks need credits, sum the credits in lbs/week to get credits in lbs/month.

$$\text{WQT TSS Credits Used [lbs/month]} = \text{WQT TSS Credits Needed [lbs/day]} \times \# \text{ of days of discharge in averaging period} \quad (\text{Eq. 3c.})$$

After calculating “WQT TSS Credits” in lbs/month based on both overall weekly and monthly credit needs, report the greater of the two values as the “WQT TSS Credits.”

Note: When the TSS discharge is less than 5.67 lbs/day as a daily maximum and 3.46 lbs/day as a monthly avg, report 0 (zero) as the “WQT TSS Credits”.

WQT COMPUTED COMPLIANCE (TSS)

Use the following method to demonstrate compliance with TSS WQBELs expressed as a mass in lbs/day:

$$\text{WQT TSS Computed Compliance – Daily Maximum [lbs/day]} = \text{Daily Maximum TSS [lbs/day]} - \text{WQT TSS Credits Needed [lbs/day]} \quad ** \quad (\text{Eq. 5a.})$$

**Depending on Equation 3b.

$$\text{WQT TSS Computed Compliance - Monthly Avg [lbs/day]} = \text{Monthly Avg TSS [lbs/day]} - \text{WQT TSS Credits Needed [lbs/day]} \quad * \quad (\text{Eq. 5b.})$$

*Depending on Equation 3a.

Negative computed compliance values should be entered as zero - “0”.

1.2.1.2 Total Phosphorus (TP) Water Quality Trading (WQT)

The permittee may use water quality trading to demonstrate compliance with WQBELs for total phosphorus of 0.225 mg/L monthly average and 0.075 mg/L 6-month average and 0.02 lbs/day 6-month average. Pollutant reduction credits for total phosphorus are available as specified in Water Quality Trading Plan WQT-2026-0005 or approved amendments thereof.

Table 2. Available TP Credits per WQT-2026-0005

Year	Available TP Credits (lbs/yr) – Interim	Available TP Credits (lbs/yr) – Long Term	Available TP Credits (lbs/yr) – Total
2026	0	53.2	53.2
2027	0	53.2	53.2
2028	0	53.2	53.2

2029	0	53.2	53.2
2030	0	53.2	53.2
2031*	0	53.2	53.2

*In the event that this permit expires and is administratively continued beyond the year(s) specified in the above table, 53.2 lbs/yr of credit will be available in subsequent years until the permit is reissued, modified, or revoked.

Only those pollutant reduction credits established by a water quality trading plan approved by the Department may be used by the permittee to demonstrate compliance with the WQBELs identified in this subsection. If the permittee wishes to use pollutant reduction credits not identified in an approved water quality trading plan, the permittee must amend the plan or develop a new plan and obtain Department approval of the amended or new plan prior to use of the new pollutant reduction credits. Prior to Department approval, the amended or new water quality trading plan will be subject to notice and opportunity for public comment. Any change in the number of available credits requires a permit modification.

In the event pollutant reduction credits as defined in the approved water quality trading plan are no longer generated, the permittee shall comply with the WQBELs for TSS and TP contained in this subsection. The sum of available interim and long-term credits shown in Table 2 may be used to demonstrate compliance for a given year. Interim credits are subject to duration limits and may not be used past the duration defined in Water Quality Trading Plan WQT-2026-0005.

1.2.1.3 Demonstrating Compliance with TP WQBELs Using Water Quality Trading

Use the following methods to demonstrate compliance with the TSS and TP WQBELs contained in the Water Quality Trading subsection above.

TOTAL POLLUTANT DISCHARGED (TP)

Use the following equations to calculate the amount of pollutant discharged for Monthly Avg TP [lbs/day].

$\text{TP Discharged [lbs/day]} = \text{TP Discharged [mg/L]} \times \text{Daily Flow [MGD]} \times 8.34 \quad (\text{Eq. 1a.})$
--

$$\text{Monthly Avg} = \Sigma \text{ daily results} \div \# \text{ of results} \quad (\text{Eq. 1b.})$$

WQT CREDITS USED (TOTAL PHOSPHORUS)

Use the following method to calculate the credits to be used expressed as a mass in lbs/month:

$$\text{WQT TP Credits Needed [lbs/day]} = (\text{Monthly Avg TP [mg/L]} - 0.075 \text{ [mg/L]}) \times \text{Monthly Avg Flow [MGD]} \times 8.34 \quad (\text{Eq. 2a.})$$

$$\text{WQT TP Credits Needed [lbs/day]} = \text{Monthly Avg TP [lbs/day]} - 0.02 \text{ lbs/day} \quad (\text{Eq. 2b.})$$

When the “Monthly Avg TP” discharged is greater than both 0.075 mg/L and 0.02 lbs/day, select the greater of the two values from Equation 2a or 2b to be used in Equation 2c below.

Note: When the TP discharge is less than 0.075 mg/L AND 0.02 lbs/day as a monthly avg, report 0 (zero) as the “WQT Credits Used (TP)”.

$\text{WQT TP Credits Used [lbs/month]} = \text{WQT TP Credits Needed [lbs/day]} \times \# \text{ of days of discharge/month} \quad (\text{Eq. 2c.})$

WQT COMPUTED COMPLIANCE (TOTAL PHOSPHORUS)

Use the following method to demonstrate compliance with TP WQBELs expressed as a concentration in mg/L:

$$\text{WQT TP Computed Compliance [mg/L]} = \text{Monthly Avg TP [mg/L]} - [\text{WQT TP Credits Needed [lbs/day]}^* \div (\text{Monthly Avg Flow [MGD]} \times 8.34)]$$

(Eq. 4a.)

*Greater of either Equation 2a or 2b, the value used for Equation 2c.

Use the following method to demonstrate compliance with TP WQBELs expressed as a mass in lbs/day:

$$\text{WQT TP Computed Compliance [lbs/day]} = \text{Monthly Avg TP [lbs/day]} - \text{WQT TP Credits Needed [lbs/day]}^{**}$$

(Eq. 4b.)

**Greater of either Equation 2a or 2b, the value used for Equation 2c.

Negative computed compliance values should be entered as zero - "0".

1.2.1.4 Additional Water Quality Trading Requirements

When using water quality trading to demonstrate compliance with WQBELs for TSS and TP, the permittee shall comply with the following:

- Failure to implement any of the terms or conditions of the approved water quality trading plan is a violation of this permit.
- Each month the permittee shall certify that the nonpoint source management practices installed to generate pollutant reduction credits are operated and maintained in a manner consistent with that specified in the approved water quality trading plan. Such a certification may be made by including the following statement as a comment on the monthly discharge monitoring report:

I certify that management practices identified in the approved water quality trading plan as the source of pollutant reduction credits are installed, established and properly maintained.

- At least once a year the permittee or the permittee's agent shall inspect each nonpoint source management practice that generates pollutant reduction credits to confirm the implementation of the management practice and their appropriate operation and adequate maintenance.
- The permittee shall notify WDNR by telephone within 24 hours or next business day of becoming aware that pollutant reduction credits used or intended for use by the permittee are not being implemented or generated as defined in the approved trading plan. A written notification shall be submitted to the Department within 5 days regarding the status of the permittee's pollutant reduction credits.
- The permittee shall provide WDNR written notice within 7 days of the trade agreement upon which the approved water quality trading plan is based being amended, modified, or revoked. This notification shall include the details of any amendment or modification in addition to the justification for the changes.
- The permittee shall not use pollutant reduction credits for the demonstration of compliance when pollutant reduction credits are not being generated.

1.2.1.5 Water Quality Trading Reopener Clause

Under any of the following conditions as provided by s. 283.53(2), Wis. Stats. and ss. NR 203.135 and 203.136, Wis. Adm. Code, the Department may modify or revoke and reissue this permit to modify or eliminate permit terms and conditions related to water quality trading:

- The permittee fails to implement the water quality trading plan as approved;
- The permittee fails to comply with permit terms and conditions related to water quality trading;
- New information becomes available that would change the number of credits available for the water quality trade or would change the Department's determinations that water quality trading is an acceptable option.

1.2.1.6 Submittal of Permit Application for Next Reissuance and Pollutant Trading Plan

The permittee shall submit the permit application for the next reissuance at least 6 months prior to expiration of this permit.

The permittee has submitted a Water Quality Trading Plan that was approved by WDNR dated April 2026. If the permittee intends to pursue pollutant trading to achieve compliance in a future permit term, an updated water quality trading plan is due with the application for the next reissuance. If system upgrades will be used in combination with pollutant trading the permittee shall submit plans for any system upgrade.

1.2.1.7 Whole Effluent Toxicity (WET) Testing

Primary Control Water for Acute Tests: Synthetic (standard) laboratory water

Primary Control Water for Chronic Tests: Synthetic (standard) laboratory water

Instream Waste Concentration (IWC): 100%

Acute Mixing Zone Concentration: N/A

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

- **Acute:** 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.
- **Chronic:** 100, 75, 50, 25, 12.5% and any additional selected by the permittee.

WET Testing Frequency:

Acute tests are required during the following quarters:

- **Acute:** July – September 2027; July – September 2029 or twice in the permit term during any year in which discharge occurs.

Chronic tests are required during the following quarters:

- **Chronic:** July – September 2027; July – September 2029; July – September 2030 or three times in the permit term during any year in which discharge occurs.

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

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

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

Additional Testing Requirements: Within 90 days of a test which showed positive results, the permittee shall submit the results of at least 1 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 Land Treatment 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, Waste Description/Sample Contents and Treatment Description (as applicable)
001	Discharge from Outfall 001 shall be limited to process wastewater. Samples shall be collected prior to discharging to the 179 acre spray irrigation system located at the SW 1/4 , SW 1/4 of Section 23, the NW 1/4, NW1/4 of section 26, the SW1/4, NE1/4 of section 27, the SE1/4 of section 27 and the SW1/4, NW1/4 of section 26, the SE1/4, NE1/4 of section 34, and the NE1/4, SE1/4 of section 34 all in T12N, R16E, Dodge County.

2.2 Monitoring Requirements and Limitations

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

2.2.1 Sampling Point (Outfall) 001 - SPRAY IRRIGATION, Spray Irrigation

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Total Daily	
Hydraulic Application Rate	Monthly Avg	3,500 gal/ac/day	Monthly	Calculated	May - October
Hydraulic Application Rate	Monthly Avg	0 gal/ac/day	Monthly	Calculated	November - April
BOD ₅ , Total		mg/L	Weekly	Composite	
Chloride		mg/L	Weekly	Composite	
Nitrogen, Total Kjeldahl		mg/L	Weekly	Composite	
Nitrogen, Max Applied On Any Zone	Annual Total	300 lbs/ac/yr	Annual	Total Annual	
Chloride, Max Applied On Any Zone		lbs/ac/yr	Annual	Total Annual	
Soil - Nitrogen, Available		mg/kg	Annual	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Soil - Phosphorus, Available		mg/kg	Annual	Grab	
Soil - Potassium, Available		mg/kg	Annual	Grab	
Soil - pH Lab		su	Annual	Grab	
Other Sources of Nitrogen		lbs/ac/yr	Annual	Measure	

Daily Log – Monitoring Requirements and Limitations				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
Zone or Location Being Sprayed	-	Number	Daily	Log
Volume per Zone	-	Gallons	Daily	Log
Acres Being Sprayed	-	Acres	Daily	Log
Start to End Time	-	Date, Hour	Daily	Log
Maximum Applied Volume	1.0	Inches/Load Cycle	Daily	Calculated

2.2.1.1 Maximum Applied Chloride/Nitrogen on Any Zone

Calculate the mass applied annually to each zone* utilized during the calendar year using the equation below. Record the highest total mass applied to any zone within the treatment system each year on the eDMR with a sample date of December 31.

$$\frac{(\text{annual avg. concentration in mg/L}) (\text{tot. annual flow in million gallons per zone}) (8.34)}{\text{acreage of zone}} = \text{lbs/ac/yr}$$

*A zone can be an entire field, or a portion as defined in the approved Land Treatment Management Plan.

2.2.1.2 Spray Irrigation Site(s) - Soil Analysis

The soil at each spray irrigation sample point (outfall) shall be tested annually for available nitrogen, available phosphorus, available potassium and pH. The soil tests shall be conducted by an approved testing facility. The permittee shall report sample results on an annual eDMR. If multiple soil tests are taken at this outfall, report all data on the eDMR and identify the zones sampled in the General Comments section of the report.

2.2.1.3 Irrigation Months

Discharge to the spray irrigation sites shall occur only between May 1 to October 31, except the Department may approve spray irrigation in April or November during unusually warm weather that would allow the wastewater to seep

into the ground and be absorbed by the cover crop. During the discharge period, application of wastewater shall not occur on saturated, frozen or snow covered soil where these conditions result in wastewater ponding or runoff.

3 Groundwater Requirements

3.1 Monitoring Requirements and Limitations

3.1.1 Groundwater Monitoring System for Spray Fields B, C, D, E and F

Location of Monitoring System: perimeter of spray fields B, C, D, E and F

Groundwater Monitoring Well(s) to be Sampled: MW-106 (806), MW-111 (811), MW-113 (813), MW-103 (816), MW-104 (817), MW-105 (818), MW-115 (819), MW-123 (893)

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: MW-113 (813)

Preventive Action Limits (PAL) and Enforcement Standards (ES) listed in the table below are from ss. NR 140.10 and NR.140.12, Wis. Adm. Code. PALs for s. NR 140.20 Wis. Adm. Code Indicator Parameters and s. NR 140.28 Wis. Adm. Code Exemptions with Alternative Concentration Limits listed in the table below have been calculated based on background groundwater quality data from this/these designated well(s). Groundwater contaminant concentrations shall be minimized and PALs met in groundwater monitoring wells to the extent it is technically and economically feasible.

Groundwater Monitoring Well(s) Used for Point of Standards Application: MW-103 (816), MW-111 (811)

“Point of standards application” refers to any point of present groundwater use (i.e., potable well) or a specific groundwater monitoring well that is located beyond the design management zone or the property boundary, whichever is closer to the land treatment/disposal system at which the concentration of a substance in groundwater is measured for purposes of determining whether a PAL or an ES has been attained or exceeded. See the Standard Requirements section of this permit for additional conditions related to exceedance of groundwater standards.

Required Monitoring: Grab samples shall be collected from each monitoring well and analyzed for the parameters per the frequency shown in the table below.

PARAMETER	UNITS	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	FREQUENCY
Groundwater Elevation	feet MSL	N/A	N/A	Quarterly
Depth To Groundwater	feet	N/A	N/A	Quarterly
Chloride Dissolved	mg/L	170	250	Quarterly
COD	mg/L	40	N/A	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	2.6	N/A	Quarterly
Nitrogen, Organic Dissolved	mg/L	2.7	N/A	Quarterly
pH Field	su	8.5	N/A	Quarterly
Solids, Total Dissolved	mg/L	705	N/A	Quarterly

3.1.1.1 Exemptions and Alternative Concentration Limit

An alternative concentration limit (ACL) of Chloride (170 mg/l) and Nitrite + Nitrate (2.6 mg/l) has been established for the Preventative Action Limit for both parameters at this site. This ACL is authorized in conjunction with an exemption granted under s. NR 140.28, Wis. Adm. Code.

3.1.1.2 Preventive Action Limits for pH

A result for pH is considered to have exceeded the pH PAL for this site if the result is less than 6.5 s.u. or greater than 8.5 s.u.

3.1.1.3 Preventive Action Limits for Indicator Parameters

PALs for Indicator Parameters have been established for this site. For more information see “Indicator Parameter Preventive Action Limits and Alternative Concentration Limits” in the Standard Requirements section.

3.1.2 Groundwater Monitoring System for the Spray Field G

Location of Monitoring System: perimeter of spray field G

Groundwater Monitoring Well(s) to be Sampled: MW-116 (886), MW-117 (887), MW-118 (888), MW-121 (891), MW-122 (892)

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: MW-116 (886)

Preventive Action Limits (PAL) and Enforcement Standards (ES) listed in the table below are from ss. NR 140.10 and NR.140.12, Wis. Adm. Code. PALs for s. NR 140.20 Wis. Adm. Code Indicator Parameters and s. NR 140.28 Wis. Adm. Code Exemptions with Alternative Concentration Limits listed in the table below have been calculated based on background groundwater quality data from this/these designated well(s). Groundwater contaminant concentrations shall be minimized and PALs met in groundwater monitoring wells to the extent it is technically and economically feasible.

Groundwater Monitoring Well(s) Used for Point of Standards Application: MW-122 (892), MW-121 (891), MW-117 (887)

“Point of standards application” refers to any point of present groundwater use (i.e., potable well) or a specific groundwater monitoring well that is located beyond the design management zone or the property boundary, whichever is closer to the land treatment/disposal system at which the concentration of a substance in groundwater is measured for purposes of determining whether a PAL or an ES has been attained or exceeded. See the Standard Requirements section of this permit for additional conditions related to exceedance of groundwater standards.

Required Monitoring: Grab samples shall be collected from each monitoring well and analyzed for the parameters per the frequency shown in the table below.

PARAMETER	UNITS	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	FREQUENCY
Depth To Groundwater	feet	N/A	N/A	Quarterly
Groundwater Elevation	feet MSL	N/A	N/A	Quarterly
Chloride Dissolved	mg/L	125	250	Quarterly
COD	mg/L	40	N/A	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	2.0	10	Quarterly
Nitrogen, Organic Dissolved	mg/L	2.3	N/A	Quarterly
pH Field	su	8.4	N/A	Quarterly
Solids, Total Dissolved	mg/L	685	N/A	Quarterly

3.1.2.1 Preventive Action Limits for pH

A result for pH is considered to have exceeded the pH PAL for this site if the result is less than 6.4 s.u. or greater than 8.4 s.u.

3.1.2.2 Preventive Action Limits for Indicator Parameters

PALs for Indicator Parameters have been established for this site. For more information see “Indicator Parameter Preventive Action Limits and Alternative Concentration Limits” in the Standard Requirements section.

4 Land Application Requirements

4.1 Sampling Point(s)

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

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
003	Land Spreading of Liquid Wastes (silage leachate and/or process wastewater)
004	Landspreading of Byproduct Solids

4.2 Monitoring Requirements and Limitations

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

4.2.1 Sampling Point (Outfall) 003 – Wastewater/Silage Leachage

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gal/month	Monthly	Total Monthly	
Solids, Total		Percent	Monthly	Grab	
BOD ₅ , Total		mg/L	Monthly	Grab	
Chloride		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Phosphorus, Total		mg/L	Monthly	Grab	
Phosphorus, Water Extractable		% of Tot P	Monthly	Grab	
Potassium, Total Recoverable		mg/L	Monthly	Grab	
pH Field		su	Annual	Grab	

Daily Log – Monitoring Requirements and Limitations				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
DNR Site Number(s)	-	Number	Daily	Log
Acres Applied	-	Acres	Daily	Log
Frozen Site Maximum Daily Loading Volume	6,800	Gal/Acre/Day	Daily	Calculated
Unfrozen Site Maximum Daily Loading Volume	13,500	Gal/Acre/Day	Daily	Calculated
Weekly Loading Volume	See NR 214 - Tbl 3	Inches/Week	Weekly	Calculated

Annual Report – Summary of Monitoring Requirements and Limitations				
The Annual Report is due by January 31 st of each year for the previous calendar year. See the ‘Annual Land Application Report’ subsection in Standard Requirements.				
Parameters	Limit	Units	Reporting Frequency	Sample Type
DNR Site Number(s)	-	Number	-	-
Acres Land Applied	-	Acres	Annual	-
Total Volume Per Site	-	Gallons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

4.2.1.1 Annual Site Nitrogen Loading

For details on nitrogen loading requirements, including approval of an alternate nitrogen pounds/acre/year site loading, see the “Nitrogen Requirements for Liquid Wastes, By-Product Solids and Sludges” paragraph in the Standard Requirements section of this permit.

4.2.1.2 Biennial Site Chloride Loading

For details on chloride requirements see the “Chloride Requirements for Liquid Wastes and By-Product Solids” paragraph in the Standard Requirements section of this permit.

4.2.1.3 Exemption Notices

The permittee is exempt from the specified monitoring and reporting requirements for sites storing less than 150 tons of sweet corn silage. The permittee is also exempt from the monitoring and reporting requirements for sites storing sweet corn silage between 150 tons and 1200 tons if the permittee: 1) has an approved “Stack Inventory and Evaluation” form; 2) provides the site owner a letter describing approved leachate storing and spreading requirements

as outlined in chs. NR 213 and 214, Wis. Adm. Code, and provides an aerial photo delineating restricted spreading areas; and 3) the site is included in an annual report submitted by the permittee following the year of silage storage which records the total amount of silage received and stored at the site.

4.2.2 Sampling Point (Outfall) 004 – Vegetable Byproduct Solids

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Volume		gal/month	Monthly	Total Monthly	
Solids, Total		Percent	Quarterly	Grab	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Grab	
Chloride		Percent	Quarterly	Grab	
Phosphorus, Total		Percent	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total Recoverable		Percent	Quarterly	Grab	

Daily Log – Monitoring Requirements and Limitations				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
DNR Site Number(s)	-	Number	Daily	Log
Acres Applied	-	Acres	Daily	Log
Application Rate	-	Tons/Acre/Day	Daily	Calculated

Annual Report – Summary of Monitoring Requirements and Limitations				
The Annual Report is due by January 31 st of each year for the previous calendar year. See the ‘Annual Land Application Report’ subsection in Standard Requirements.				
Parameters	Limit	Units	Reporting Frequency	Sample Type
DNR Site Number(s)	-	Number	-	-
Acres Land Applied	-	Acres	Annual	-
Total Amount Per Site	-	Tons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

4.2.2.1 Annual Site Nitrogen Loading

For details on nitrogen loading requirements, including approval of an alternate nitrogen pounds/acre/year site loading, see the “Nitrogen Requirements for Liquid Wastes, By-Product Solids and Sludges” paragraph in the Standard Requirements section of this permit.

4.2.2.2 Biennial Site Chloride Loading

For details on chloride requirements see the “Chloride Requirements for Liquid Wastes and By-Product Solids” paragraph in the Standard Requirements section of this permit.

4.2.2.3 Sampling

Representative samples shall be collected of the byproduct solids to be land applied. When the byproduct solids are large pieces, a large sample should be collected and ground to a homogenous slurry for analysis.

5 Schedules

5.1 Annual Water Quality Trading (WQT) Report

Required Action	Due Date
<p>Annual WQT Report: Submit an annual WQT report that shall cover the first year of the permit term. The WQT Report shall include:</p> <p>The number of pollutant reduction credits (lbs/month) used each month of the previous year to demonstrate compliance;</p> <p>The source of each month's pollutant reduction credits by identifying the approved water quality trading plan that details the source;</p> <p>A summary of the annual inspection of each nonpoint source management practice that generated any of the pollutant reduction credits used during the previous year; and</p> <p>Identification of noncompliance or failure to implement any terms or conditions of this permit with respect to water quality trading that have not been reported in discharge monitoring reports.</p>	01/31/2027
Annual WQT Report #2: Submit an annual WQT report that shall cover the previous year.	01/31/2028
Annual WQT Report #3: Submit an annual WQT report that shall cover the previous year.	01/31/2029
Annual WQT Report #4: Submit an annual WQT report that shall cover the previous year.	01/31/2030
Annual WQT Report #5: Submit the 5th annual WQT report. If the permittee wishes to continue to comply with phosphorus limits through WQT in subsequent permit terms, the permittee shall submit a revised WQT plan including a demonstration of credit need, compliance record of the existing WQT, and any additional practices needed to maintain compliance over time.	01/31/2031
Annual WQT Report Required After Permit Expiration: In the event that this permit is not reissued by the expiration date, the permittee shall continue to submit annual WQT reports by January 31 each year covering the total number of pollutant credits used, the source of the pollution reduction credits, a summary of annual inspection reports performed, and identification of noncompliance or failure to implement any terms or conditions of the approved water quality trading plan for the previous calendar year.	

5.2 Chloride Source Reduction Measures (SRMs) for Groundwater Discharges

Required Action	Due Date
Annual Progress Report: Once the chloride reduction plan (CRP) is approved by the Department, the permittee shall submit an annual progress report, under the authority of s. NR 205.07(1)(h), Wis. Adm. Code. If a SRM implementation date of an approved CRP is not met, this may constitute a violation of the permit. Submittal of the first annual progress report is required by the Date Due.	01/31/2028
Second Annual Progress Report: Submit progress report in implementing the chloride reduction plan (CRP).	01/31/2029
Final Annual Progress Report: Submit progress report in implementing the chloride reduction plan (CRP).	01/31/2030

<p>Chloride Reduction Plan: The permittee shall complete and submit for Department review and approval a chloride reduction plan (CRP). The CRP is an initial step toward controlling chloride and ensuring compliance with chloride limits based on applicable groundwater standards. The CRP shall evaluate all applicable source reduction measures (SRMs) and establish appropriate implementation activities for the SRMs. The CRP shall include a schedule for implementing the selected SRMs.</p>	<p>01/31/2027</p>
---	-------------------

5.3 Land Treatment Management Plan

A management plan is required for the land treatment system.

Required Action	Due Date
<p>Land Treatment Management Plan: Submit an update to the management plan to optimize the land treatment system performance and demonstrate compliance with Wisconsin Administrative Code NR 214.</p>	<p>06/01/2027</p>

5.4 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
<p>Land Application Management Plan: Submit an update to the management plan to optimize the land application system performance and demonstrate compliance with Wisconsin Administrative Code NR 214.</p>	<p>06/01/2027</p>

6 Standard Requirements

Chapter NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code.

6.1 Reporting and Monitoring Requirements

6.1.1 Monitoring Results

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

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

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

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

6.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code, and completed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sampling shall be performed in accordance with procedures contained in s. NR 140.16, Wis. Adm. Code, and the WDNR publications, Groundwater Sampling Desk Reference (PUBL-DG-037-96) and Groundwater Sampling Field Manual (PUBL-DG-038-96). The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation and/or groundwater standard. If the required level cannot be met by any of the methods available in ch. NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

6.1.3 Recording of Results

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

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

- The results of the analysis.

6.1.4 Reporting of Monitoring Results

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

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating fees under ch. NR 101, Wis. Adm. Code, a reporting limit of 2.0 mg/L for BOD₅ and 2.5 mg/L Total Suspended Solids shall be considered to be limits of quantitation.
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a “0” (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.
- If no discharge occurs through an outfall, flow related parameters (e.g. flow rate, hydraulic application rate, volume, etc.) should be reported as “0” (zero) at the required sample frequency specified for the outfall. For example: if the sample frequency is daily, “0” would be reported for any day during the month that no discharge occurred.

6.1.5 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic data records for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application, except for sludge management forms and records, which shall be kept for a period of at least 5 years.

6.1.6 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.

6.1.7 Reporting Requirements – Alterations or Additions

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

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

6.2 System Operating Requirements

6.2.1 Noncompliance Reporting

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

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

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

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

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

6.2.2 Bypass

Except for a controlled diversion as provided in the 'Controlled Diversions' section of this permit, any bypass is prohibited and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats. The Department may approve a bypass if the permittee demonstrates all the following conditions apply:

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

6.2.3 Scheduled Bypass

Whenever the permittee anticipates the need to bypass for purposes of efficient operations and maintenance and the permittee may not meet the conditions for controlled diversions in the 'Controlled Diversions' section of this permit, the permittee shall obtain prior written approval from the Department for the scheduled bypass. A permittee's written request for Department approval of a scheduled bypass shall demonstrate that the conditions for unscheduled bypassing are met and include the proposed date and reason for the bypass, estimated volume and duration of the

bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

6.2.4 Controlled Diversions

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

- Effluent from the wastewater treatment facility shall meet the effluent limitations established in the permit. Wastewater that is diverted around a treatment unit or treatment process during a controlled diversion shall be recombined with wastewater that is not diverted prior to the effluent sampling location and prior to effluent discharge;
- A controlled diversion may not occur during periods of excessive flow or other abnormal wastewater characteristics;
- A controlled diversion may not result in a wastewater treatment facility overflow; and
- All instances of controlled diversions shall be documented in wastewater treatment facility records and such records shall be available to the department on request.

6.2.5 Proper Operation and Maintenance

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

6.2.6 Operator Certification

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

6.2.7 Spill Reporting

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

6.2.8 Planned Changes

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

description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on existing waste treatment facilities. Following receipt of this report, the Department may modify this permit to specify and limit any pollutants not previously regulated in the permit.

6.2.9 Duty to Halt or Reduce Activity

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

6.3 Surface Water Requirements

6.3.1 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.

6.3.2 Appropriate Formulas for Effluent Calculations

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

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

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

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

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

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

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

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

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

6.3.3 Effluent Temperature Requirements

Weekly Average Temperature – If temperature limits are included in this permit, Weekly Average Temperature shall be calculated as the sum of all daily maximum results for that week divided by the number of daily maximum results during that time period.

Cold Shock Standard – Water temperatures of the discharge shall be controlled in a manner as to protect fish and aquatic life uses from the deleterious effects of cold shock pursuant to Wis. Adm. Code, s. NR 102.28. ‘Cold Shock’ means exposure of aquatic organisms to a rapid decrease in temperature and a sustained exposure to low temperature that induces abnormal behavior or physiological performance and may lead to death.

Rate of Temperature Change Standard – Temperature of a water of the state or discharge to a water of the state may not be artificially raised or lowered at such a rate that it causes detrimental health or reproductive effects to fish or aquatic life of the water of the state pursuant to Wis. Adm. Code, s. NR 102.29.

6.3.4 Visible Foam or Floating Solids

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

6.3.5 Surface Water Uses and Criteria

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

- Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.
- Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.
- Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.
- Substances in concentrations or in combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

6.3.6 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.

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

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.

6.3.7 Whole Effluent Toxicity (WET) Monitoring Requirements

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

6.3.8 Whole Effluent Toxicity (WET) Identification and Reduction

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

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including the following actions:
 - a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
 - b) Identify the compound(s) causing toxicity. Conduct toxicity screening tests on the effluent at a minimum of once per month for six months to determine if toxicity recurs. Screening tests are WET tests using fewer effluent concentrations conducted on the most sensitive species. If any of the screening tests contain toxicity, conduct a toxicity identification evaluation (TIE) to determine the cause. TIE methods are available from USEPA "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F).
 - c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
 - d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

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

6.4 Land Treatment Requirements for Industrial Discharges

NR 214, Wisconsin Administrative Code: The requirements of this section are based on ss. NR 214.12-16, Wis. Adm. Code, and apply to wastewater discharges to designed and constructed absorption pond, ridge & furrow, spray irrigation, overland flow and subsurface absorption treatment systems.

6.4.1 Formulas for Land Treatment Calculations

The permittee shall use the following formulas for land treatment calculations, unless an alternate calculation method is approved by the Department in the Land Treatment Management Plan.

6.4.1.1 Monthly Average Hydraulic Application Rate

Determine the monthly average hydraulic application rate (in gal/acre/day) for each outfall by calculating the total gallons of wastewater applied onto the site for the month, dividing that total by the number of wetted acres loaded during the month, and then dividing this resulting value by the number of days in the month. Enter this calculated monthly value on the Discharge Monitoring Report form in the box for the last day of the month, in the "Hydraulic Application Rate" column.

6.4.1.2 Annual Total Nitrogen per Cell or per Zone

$$\frac{(\text{annual ave. concentration in mg/L}) (\text{tot. annual flow in million gallons per cell or zone}) (8.34)}{\text{acreage of cell or zone}} = \text{lbs/ac/yr}$$

6.4.1.3 Annual Total Chloride per Cell or per Zone

$$\frac{(\text{annual ave. concentration in mg/L}) (\text{tot. annual flow in million gallons per cell or zone}) (8.34)}{\text{acreage of cell or zone}} = \text{lbs/ac/yr}$$

6.4.2 Chloride Requirements for Land Treatment Systems

Since chloride is not significantly treated by the soil, the chloride level of the wastewater treated on land shall be minimized to the extent that is technically and economically feasible. The goal is to protect groundwater quality and prevent exceedance of the 125 mg/L groundwater preventive action limit.

6.4.3 Nitrogen Loading Requirements for Spray Irrigation

The total annual nitrogen loading (pounds/acre/year) to the wastewater spray irrigation acreage shall not exceed the limitation contained in the monitoring requirements and limitations for that sampling point. Determination of the annual pounds of nitrogen applied to the land treatment system shall include the nitrogen supplied by the wastewater, organic nitrogen becoming available to plants and any supplemental fertilizers used. The Department may approve (in writing) an alternative nitrogen loading limit in a spray irrigation management plan based on the annual nitrogen needs of the cover crop and the permittee's demonstration of nitrogen losses for the site as specified in s. NR 214.14(3)(c), Wis. Adm. Code.

6.4.4 Ponding

The intensity of wastewater spray shall be limited to prevent ponding, except for temporary conditions following rainfall events.

6.4.5 Runoff

The volume of wastewater sprayed shall be limited to prevent runoff of any wastewater mixed with rainwater as specified in s. NR 214.14(3)(f), Wis. Adm. Code. If wastewater runoff occurs, spray irrigation shall cease immediately.

6.4.6 Seasonal Irrigation Restriction

Discharge to the spray irrigation field shall occur only between April 1 and October 31 each year, unless otherwise specified in the approved Land Treatment Management Plan.

6.4.7 Irrigation Management Plan

The spray irrigation treatment system shall be operated and managed in accordance with a Department approved management plan. The management plan shall be consistent with the conditions listed in this permit and s. NR 214.14(5), Wis. Adm. Code, which requires a load/rest cycle, cover crop removal, annual soil testing, etc. If

operational changes are needed, the management plan shall be amended and such plan shall be submitted to the Department for approval prior to implementing such changes.

6.5 Groundwater Standard Requirements

6.5.1 Application of NR 140 to Substances Discharged

This permit does not authorize the permittee to discharge any substance in a concentration which would cause an applicable groundwater standard of ch. NR 140, Wis. Adm. Code, to be exceeded. The Department may seek a response under NR 140 if the permittee's discharge causes exceedance of an applicable groundwater standard for any substance, including substances not specifically limited or monitored under this permit.

6.5.2 Groundwater Sampling

Groundwater sampling shall be performed in accordance with the procedures contained in s. NR 140.16, Wis. Adm. Code, and the WDNR publications, Groundwater Sampling Desk Reference (PUBL-DG-037-96) and Groundwater Sampling Field Manual (PUBL-DG-038-96).

6.5.3 Indicator Parameter Preventive Action Limits and Alternative Concentration Limits

The methodology for the assessment of background groundwater quality and calculation of indicator PALs and ACLs can be found in "Calculating Preventive Action Limits and Evaluating Groundwater Quality Exemptions for Groundwater Discharges (3400-2024-04).

6.5.4 Groundwater Monitoring Forms

Results of the groundwater analyses shall be summarized and reported on a Groundwater Monitoring Form. This report form is to be returned to the Department no later than the date indicated on the form. A copy of the Groundwater Monitoring Form or an electronic file of the form shall be retained by the permittee. Groundwater monitoring results shall be reported on an electronic Groundwater Monitoring Form and certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.5.5 Notification of Attaining or Exceeding Groundwater Quality Standards

The permittee shall notify the Department when monitoring results indicate that a Preventive Action Limit or Enforcement Standard has been attained or exceeded per ss. NR 140.24 (1)(a) and NR 140.26 (1)(a) Wis. Adm. Code. This notification may be provided in the general remarks section of the groundwater monitoring form or by letter attached to the groundwater monitoring form. Any values reported as exceeding a groundwater standard shall be confirmed as being from a representative sample and as a correct laboratory analysis result.

6.5.6 Preventive Action Limit (PAL) Exceedance

Sections NR 206.07 (1)(c) and NR 214.07 (1), Wis. Adm. Code, require all land disposal and land treatment system to be designed and operated to prevent exceedances of PALs. Results from groundwater samples that are less than this permit's PALs indicate that operation of the land treatment system is protective of groundwater quality. Substance concentrations that exhibit a trend over time of being greater than the PAL may indicate that additional technically and economically feasible actions are needed to reduce the discharge of the substance to the groundwater. In such a case, the Department may request an evaluation and response or propose a permit modification to require submittal of a groundwater evaluation report and implementation of a feasible response as specified in s. NR 140.24, Wis. Adm. Code.

6.5.7 Enforcement Standard (ES) Exceedance Within the Design Management Zone

Substance concentrations greater than this permit's ES in a permittee's monitoring well located within the property boundary and within the design management zone of the land treatment system may indicate that the groundwater concentration exceeds an ES outside of these boundaries. If the Department determines there is reasonable evidence that an ES is being attained or exceeded beyond the property boundary or beyond the design management zone, the Department may request an evaluation and response or propose a permit modification to require an evaluation report and appropriate response as specified in s. NR 140.24, Wis. Adm. Code, per s. NR 140.27, Wis. Adm. Code.

6.5.8 Enforcement Standard Exceedance Outside the Design Management Zone

The permittee's land treatment system shall not cause the concentration of a substance in groundwater to attain or exceed this permit's ES at any point of present groundwater use, at any point beyond the property boundary, or at any point beyond the design management zone established under s. NR 140.22, Wis. Adm. Code. When this condition is not met, **the permittee shall, within 120 days following notification to the Department of the attainment or exceedance of an ES beyond the compliance boundary, submit a groundwater quality evaluation and response report** as specified in s. NR 140.26(1)(b), Wis. Adm. Code. The Department may propose modification of this permit to require the permittee to implement additional treatment or other actions as specified in s. NR 140.26, Wis. Adm. Code.

6.5.9 New Monitoring Wells Installed During the Current Permit-Term

If the new monitoring well is proposed to act as a background monitoring well for the use in calculating indicator parameter PALs and ACLs, then a minimum of eight rounds of sampling results are required prior to the calculation of indicator parameter PALs and ACLs for inclusion in a modified permit. The methodology and requirements for the assessment of background groundwater quality and calculation of indicator PALs and ACLs can be found in Evaluating and Calculating Preventative Action Limits and Alternative Concentration Limits for Groundwater Discharges (3400-2020-10).

6.6 Land Application Requirements

6.6.1 Land Application Characteristic Report

The analytical results from testing of liquid wastes, by-product solids and sludges that are land applied shall be reported annually on the Characteristic Report Form 3400-49. The report form shall be submitted electronically no later than the date indicated on the form. Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete. The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg. All sludge results shall be reported on a dry weight basis.

6.6.2 Annual Land Application Report

The annual totals for the land application loadings of liquid wastes, by-product solids and sludges to field spreading sites shall be submitted electronically on the Annual Land Application Report Form 3400-55 by January 31, each year whether or not waste is land applied. Following submittal of the electronic Annual Land Application Report Form 3400-55, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

6.6.3 Other Methods of Disposal or Distribution Report

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

6.6.4 Land Application Site Approval

The permittee is authorized to landspread permitted liquid wastes, by-product solids and sludges on sites approved in writing by the Department in accordance with ss. NR 214.17(2) and 214.18(2), Wis. Adm. Code. Any site use restrictions or granting of case-by-case exceptions shall be identified in the approval letter. If the permittee wishes to have approval for additional sites, application shall be made using Land Application Site Request Form 3400-053. Complete information shall be submitted about each site, including location maps and soil maps, any soil analyses results and other information showing that the site complies with all application requirements and permit conditions. Spreading on a site may commence upon receipt of Department approval. If an existing spreading site is found by the Department to be environmentally unacceptable, a written notice will be issued to withdraw approval of that site.

6.6.5 Operating Requirements/Management Plan

All land application sites used for treatment of liquid wastes, by-product solids and sludges shall be operated in accordance with a Department approved management plan. The management plan shall be consistent with the requirements of this permit, ss. NR 214.17 (3) and (6), and NR 214.18 (3) and (6), Wis. Adm. Code. If operational changes are needed, the land application management plan shall be amended by submitting a written request to the Department for approval. A land application management plan shall be submitted for approval at least 60 days prior to land application.

6.6.6 Chloride Requirements for Liquid Wastes and By-Product Solids

The total pounds of chloride applied shall be limited to 340 pounds per acre per 2 year period. Calculate the chloride loading as follows:

$$\text{Wet Weight Solids: } \frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{chloride}}{\text{acres land applied} \times 100 \times 100} = \text{lbs chloride/acre}$$

$$\text{Liquid: } \frac{\text{mg/L chloride} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs chloride/acre}$$

6.6.7 Nitrogen Requirements for Liquid Wastes and By-Product Solids and Sludges

NR 214.17(4) and NR 214.18(4) Wis. Adm. Code specify that the total pounds of nitrogen land applied per acre per year shall be limited to the nitrogen needs of the cover crop minus any other nitrogen added to the land application site, including fertilizer or manure. Nitrogen applied can be calculated on the basis of plant available nitrogen, as long as the release of nitrogen from the organic material is credited to future years. This permit requires that the Total Kjeldahl Nitrogen calendar year application amount shall not exceed 165 pounds per acre per year, except when alternate numerical nitrogen loading limits (consistent with the above sections of NR 214) are approved in writing via the Department's land application management plan approval. Calculate nitrogen loading as follows ("TKN" represents "Total Kjeldahl Nitrogen"):

Wet Weight Solids and Sludges: $\frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{TKN}}{\text{acres land applied} \times 100 \times 100} = \text{lbs TKN/acre}$

Liquid: $\frac{\text{mg/L TKN} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs TKN/acre}$

6.6.8 Ponding

The volume of liquid wastes land applied shall be limited to prevent ponding, except for temporary conditions following rainfall events. If ponding occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

6.6.9 Runoff

The volume of liquid wastes land applied shall be limited to prevent runoff. If runoff occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

6.6.10 Soil Incorporation Requirements

- **Liquid Sludge Requirements:** The Department may require that liquid sludge be incorporated into the soil on specific land application sites when necessary to prevent surface runoff or objectionable odors. Requirements and procedures for incorporation of liquid sludge, when such incorporation may be necessary, shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.
- **Cake Sludge Requirements:** After land application, cake sludge shall be incorporated into the soil. The timing of such incorporation and other related requirements and procedures shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.
- **Liquid Wastewater Requirements:** The Department may require that liquid wastewater be incorporated or injected into the soil on specific land application sites when necessary to prevent surface runoff or objectionable odors. Requirements and procedures for injection or incorporation of liquid wastewater, when such injection or incorporation is necessary, shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.
- **By-Product Solids Requirements:** The Department may limit the volume of by-products solids that are landspread on a specific site when necessary to prevent surface runoff or leaching of contaminants to groundwater and objectionable odors. By-product solids shall, after application, be plowed, disced, or otherwise incorporated into the soil. Requirements and procedures for the incorporation of byproduct solids into the soil shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.

6.6.11 Field Stockpiles

The permittee is encouraged to landspread the by-product solids or sludges as they are transported to the fields; but if it becomes necessary to stockpile solids in the fields, the stockpiles shall be spread within 72 hours or as specified in the approved management plan.

6.6.12 By-Product Storage Sites

All sites used for storage of by-product solids shall be located such that surface water or groundwater pollution does not occur. Written Department approval is required prior to storage of more than 150 tons of by-product solids on a site at any one time.

6.6.13 Annual Inspections-Stacking Pads and Leachate Containment

Stacking pads for more than 1200 tons of silage and all leachate containment facilities shall be inspected annually for cracks and shall be repaired as necessary to prevent leakage from the containment system. The inspection reports shall be available for inspection by Department personnel for a period of three years, and shall include at a minimum the following information:

- Date and name of person(s) performing the inspection;
- Description of what the inspection consisted of;
- Details of what was discovered during the inspection;
- Recommendations for repair or maintenance; and
- Details or repair completed.

6.6.14 Additional Requirements from ch. NR 214, Wis. Adm. Code

The requirements of s. NR 214.17 (4)(c) [pathogen prohibition for human consumption crop fields], (4)(d)1 [no adverse soil effects], (4)(d)10 [allowable whey spreading rates], and (4)(e)1-3 [by-product solids spreading within agricultural practices and not cause contamination] for landspreading of liquid wastes and by product solids and s. NR 214.18 (4)(b),(d)-(h) [application, nutrient, pH, metals, and PCB limitations] for sludge spreading systems are included by reference in this permit. The permittee shall comply with these requirements.

7 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Annual Water Quality Trading (WQT) Report -Annual WQT Report	January 31, 2027	20
Annual Water Quality Trading (WQT) Report -Annual WQT Report #2	January 31, 2028	20
Annual Water Quality Trading (WQT) Report -Annual WQT Report #3	January 31, 2029	20
Annual Water Quality Trading (WQT) Report -Annual WQT Report #4	January 31, 2030	20
Annual Water Quality Trading (WQT) Report -Annual WQT Report #5	January 31, 2031	20
Annual Water Quality Trading (WQT) Report -Annual WQT Report Required After Permit Expiration	See Permit	20
Chloride Source Reduction Measures (SRMs) for Groundwater Discharges - Annual Progress Report	January 31, 2028	20
Chloride Source Reduction Measures (SRMs) for Groundwater Discharges - Second Annual Progress Report	January 31, 2029	20
Chloride Source Reduction Measures (SRMs) for Groundwater Discharges - Final Annual Progress Report	January 31, 2030	20
Chloride Source Reduction Measures (SRMs) for Groundwater Discharges - Chloride Reduction Plan	January 31, 2027	21
Land Treatment Management Plan -Land Treatment Management Plan	June 1, 2027	21
Land Application Management Plan -Land Application Management Plan	June 1, 2027	21
Characteristic Report Form 3400-49	no later than the date indicated on the form	31
Land Application Report Form 3400-55	January 31, each year whether or not waste is land applied	31
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit	32
Groundwater Monitoring Form	no later than the date indicated on the form	30
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	22

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: South Central Reg - Dodgeville, 1500 N. Johns St, Dodgeville, WI 53533-2116.

