



WPDES PERMIT

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

**PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM**

Springfield Clean Water LLC

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility
located at
7167 Schneider Rd, Middleton 53562
To

**Pheasant Branch, in the Pheasant Branch and Six Mile Creek Watershed (LR10)
in the Lower Rock River Basin and
Groundwaters of the Six Mile and Pheasant Branch Creeks (LR10) and Yahara River -Lake Mendota(LR09)
and -Lake Monona (LR08) Watersheds in the Lower Rock River Drainage Basin via Land Application**

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 _____
Tim Ryan
Wastewater Field Supervisor

Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - April 01, 2018

EXPIRATION DATE - March 31, 2023

TABLE OF CONTENTS

1 OPERATIONAL AND SAMPLING REQUIREMENTS FOR DIGESTER NUTRIENTS	1
1.1 MANURE STORAGE	1
1.2 PROPER OPERATION AND MAINTENANCE	1
1.3 DISCHARGE PREVENTION	1
1.4 FACILITY CLOSURE AND ABANDONMENT	1
1.5 NUTRIENT MANAGEMENT	1
1.5.1 Nutrient Management Plan	2
1.5.2 Digester Nutrients and Solid Manure Land Spreading	2
1.5.3 Annual Reporting Requirements	3
1.5.4 General Spreading Restrictions	3
1.5.5 Spreading Sites Submittals	3
1.6 ADDED PARTICIPATING FARMS	3
1.7 MONITORING AND SAMPLING REQUIREMENTS	4
1.7.1 Recording of Results-Sampling	4
1.7.2 Analysis of Samples	4
1.7.3 Sampling Requirements	4
1.8 SAMPLING POINT(S)	4
1.8.1 Sampling Point 008 – Digestate to Participant Farms; 009- Centrate(s) to Participant Farms and 010- Conc. Centrate to New Farm	5
2 IN-PLANT REQUIREMENTS	7
2.1 SAMPLING POINT(S)	7
2.2 MONITORING REQUIREMENTS AND LIMITATIONS	7
2.2.1 Sampling Point 003 - Conc. Centrate to Part. Farms	7
2.2.2 Sampling Point 004 - Conc. Centrate to Lagoon	8
2.2.3 Sampling Point 005 - Conc. Centrate to New Farms	8
2.2.4 Sampling Point 106 - Liquid Fertilizer Product	8
3 SURFACE WATER REQUIREMENTS	10
3.1 SAMPLING POINT(S)	10
3.2 MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS	10
3.2.1 Sampling Point (Outfall) 001 - UF/RO Discharge Water	10
4 SCHEDULES	20
4.1 ANNUAL REPORTS	20
4.2 OPERATOR CERTIFICATION	20
5 STANDARD REQUIREMENTS	21
5.1 REPORTING AND MONITORING REQUIREMENTS FOR INDUSTRIAL DISCHARGES	21
5.1.1 Monitoring Results	21
5.1.2 Sampling and Testing Procedures	21
5.1.3 Recording of Results	21
5.1.4 Reporting of Monitoring Results	22
5.1.5 Records Retention	22
5.1.6 Other Information	22
5.1.7 Reporting Requirements – Alterations or Additions	22
5.2 SYSTEM OPERATING REQUIREMENTS FOR INDUSTRIAL DISCHARGES	23
5.2.1 Noncompliance Reporting	23
5.2.2 Bypass	23
5.2.3 Scheduled Bypass	23
5.2.4 Controlled Diversions	24
5.2.5 Proper Operation and Maintenance	24
5.2.6 Operator Certification	24

5.2.7 <i>Spill Reporting</i>	24
5.2.8 <i>Planned Changes</i>	24
5.2.9 <i>Duty to Halt or Reduce Activity</i>	25
5.3 SURFACE WATER REQUIREMENTS FOR INDUSTRIAL DISCHARGES	25
5.3.1 <i>Permittee-Determined Limit of Quantitation Incorporated into this Permit</i>	25
5.3.2 <i>Appropriate Formulas for Effluent Calculations</i>	25
5.3.3 <i>Effluent Temperature Requirements</i>	25
5.3.4 <i>Visible Foam or Floating Solids</i>	26
5.3.5 <i>Surface Water Uses and Criteria</i>	26
5.3.6 <i>Whole Effluent Toxicity (WET) Monitoring Requirements</i>	26
5.3.7 <i>Whole Effluent Toxicity (WET) Identification and Reduction</i>	26
5.4 GENERAL CONDITIONS	27
5.4.1 <i>Duty to comply</i>	27
5.4.2 <i>Permit Actions</i>	27
5.4.3 <i>Property Rights</i>	27
5.4.4 <i>Schedules</i>	27
5.4.5 <i>Inspection and Entry</i>	27
5.4.6 <i>Transfers</i>	28
5.4.7 <i>Duty to Mitigate</i>	28
5.4.8 <i>Duty to Provide Information</i>	28
5.4.9 <i>Recording of Results-Sampling</i>	28
5.4.10 <i>Recording of Results-Inspections</i>	28
5.4.11 <i>Spill Reporting</i>	28
5.4.12 <i>Planned Changes</i>	28
5.4.13 <i>Submittal of Plans and Specifications</i>	29
5.4.14 <i>Other Information</i>	29
5.4.15 <i>Reporting Requirements – Alterations or Additions</i>	29
5.4.16 <i>Noncompliance - 24 Hour Reporting</i>	30
5.4.17 <i>Reports and Submittal Certification</i>	30
5.5 OPERATIONAL AND SAMPLING REQUIREMENTS FOR DIGESTER NUTRIENTS	30
5.5.1 <i>Responsibility for Digester Nutrients</i>	30
5.5.2 <i>Distribution of Digester Nutrients</i>	30
5.5.3 <i>Department Review of Nutrient Management Plans</i>	31
5.5.4 <i>Record Keeping and Retention</i>	31
6 SUMMARY OF REPORTS DUE	35

1 Operational and Sampling Requirements for Digester Nutrients

1.1 Manure Storage

The permittee shall have and maintain adequate storage for all digester nutrients to ensure that wastes can be properly stored and land applied in compliance with the conditions and timing restrictions of the permit, a Department approved nutrient management plan and s. NR 243.14(9).

1.2 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all manure storage facilities and systems in compliance with the conditions of this permit. The permittee shall comply with the permit and s. NR 243.17, including the following requirements:

- Chemicals and other pollutants may not be added to manure or stormwater storage facilities or treatment systems without prior Department approval.
- The permittee shall maintain a design storage capacity of 180 days for liquid manure unless the Department approves a temporary reduction in design storage capacity to 150 days in accordance with s. NR 243.17(4).

1.3 Discharge Prevention

A permittee shall operate and maintain storage and containment facilities to prevent overflows and discharges to waters of the state.

- The permittee may not exceed the maximum operating level in liquid storage or containment facilities except as a result of recent precipitation or conditions that do not allow removal of material from the facility in accordance with permit conditions.
- The permittee shall maintain a margin of safety in liquid storage or containment facilities that levels of digester nutrients and other wastes placed in the storage or containment facility may not exceed. Materials shall be removed from the facility in accordance with the approved nutrient management plan to ensure that the margin of safety is not exceeded. Failure to maintain a margin of safety is permit noncompliance that must be reported to the Department in accordance with the timeframes specified in the Noncompliance-24 Hour Reporting subsection in the Standard Requirements.

1.4 Facility Closure and Abandonment

In accordance with s. NR 243.17, if the permittee plans to close or abandon structures or systems regulated by this permit, a closure or abandonment plan shall be submitted to the Department and written Department approval must be granted before closing the facility. Manure storage facilities shall be closed or abandoned in accordance with NRCS Standard 360 (December 2002). Closure or abandonment of a manure storage facility shall occur when manure has not been added or removed for a period of 24 months, unless the owner or operator can provide information to the Department that the structure is designed to store manure for a longer period of time or that the storage structure will be utilized within a specific period of time.

1.5 Nutrient Management

Except as provided for in s. NR 243.142(2), the permittee is responsible for ensuring that that digester nutrients are land applied or disposed of in a manner that complies with the terms of this permit, the approved nutrient management plan and s. NR 243.14. The permittee may contract with participating farms, which accept the return of digester nutrients to meet these requirements.

The permittee shall land apply digested manure in compliance with the Department approved nutrient management plan, s. NR 243.14 and the terms and conditions of this permit. Land application practices shall not exceed crop

nutrient budgets determined in accordance with NRCS Standard 590, this permit and s. NR 243.14 and shall be based on digester nutrient analyses, soil tests, as well as other nutrient sources applied to a field. The permittee shall review and amend the nutrient management plan on an annual basis to reflect any changes in operations over the previous year (including incorporation of the previous year's amendments and new soil test results) and to include projected changes for the upcoming year

The nutrient management plan may be amended at any time provided the proposed amendments are approved in writing by the Department and meet the requirements of s. NR 243.14. Changes requiring a plan amendment include, but are not limited to, changes to application rates, new spreading sites, changes in manure storage procedures, or changes in the type of manure spreading equipment. An amendment does not become effective and may not be implemented until the Department has reviewed and approved the amendment

The permittee shall maintain daily spreading records and submit annual reports relating to land application activities in accordance with s. NR 243.19.

1.5.1 Nutrient Management Plan

Cropland receiving solid manure (non-digested solid manure) or digester nutrients (centrate, concentrated centrate and digestate) need to have a current NRCS 590 nutrient management plan and apply the nutrients according to their plan.

1.5.2 Digester Nutrients and Solid Manure Land Spreading

This project was selected to assist with phosphorus removal efforts from the watersheds draining into Lake Mendota (project watersheds include: Six Mile and Pheasant Branch Creeks (LR10) and Yahara River -Lake Mendota(LR09) and -Lake Monona (LR08)). consistent with recommendations from Yahara Clean and the Clean Lakes Alliance. In order to lower soil test phosphorus levels in the area watersheds and to reduce the delivery of phosphorus to receiving waters in the Yahara Watersheds, all fields involved in this project must be included in an approved NRCS 590 Nutrient Management Plan. Digester nutrients and/or solid manure must be land spread according to the soil test phosphorus levels and crop uptake needs of each land spreading field as follows:

- Fields with soil test P < 50 - can be spread up to the crop N needs.
- Fields with soil test P levels between 51 – 100 ppm - can be spread up to 75% of the crop P needs, for crops to be grown over a maximum rotation length of 4 years (CAFOs) or 8 years (all others), *
- Fields with soil test P levels between 101 – 200 ppm - can be spread up to 50% of the crop P needs, for crops to be grown over a maximum rotation length of 4 years (CAFOs) or 8 years (all others),
- Fields with soil test P > 200 - spreading phosphorus is prohibited.

Digester nutrients can be combined with manure, commercial fertilizer, or other nutrient sources in order to reach the specified % of crop P needs. Milking parlor wastewater is excluded from the restrictions.

* This requirement can be adjusted up to 100 % for operations that utilize alfalfa in a rotation and can demonstrate a need.

All fields must meet a Phosphorus Index (PI) of 6 or less throughout the rotation. After the Crop Year 2014, no field spread with digester nutrients may have an annual PI of 12 or more. It is a goal of this project to decrease the annual PI of the fields and to decrease the weighted average PI of the fields over the rotation.

1.5.3 Annual Reporting Requirements

Springfield Clean Water LLC, shall submit a report (January 31 - for the previous crop year) regarding land application of digester nutrients and solid manure from all participating farms, which do not have a CAFO permit. Reporting requirements will include annual spreading reports, annual Nutrient Management Plan checklist (form ARM-LWR-480), manure analysis reports, updated restricted area maps and updated Nutrient Management Plans (including SNAP + files) for non-permitted farms (non CAFO).

1.5.4 General Spreading Restrictions

The permittee shall land apply digester nutrients in compliance with the following:

- Digester nutrients may not pond on the application site.
- During dry weather conditions, digester nutrients may not run off the application site, nor discharge to waters of the state through subsurface drains.
- Digester nutrients may not cause the fecal contamination of water in a well.
- Digester nutrients may not run off the application site nor discharge to waters of the state through subsurface drains due to precipitation or snowmelt except if the permittee has complied with all land application restrictions in NR 243 and this permit, and the runoff or discharge occurs as a result of a rain event that is equal to or greater than a 25-year, 24-hour rain event.
- Digester nutrients may not be applied to saturated soils.
- Digester nutrients may not be applied within 100 feet of a direct conduit to groundwater.
- Digester nutrients may not be applied within 100 feet of a private well or non-community system as defined in ch. NR 812 or within 1000 feet of a community well as defined in ch. NR 811.
- Digester nutrients may not be surface applied when precipitation capable of producing runoff is forecast within 24 hours of the time of planned application.
- Digester nutrients may not be spread in a waterway, terrace channel or any areas where there may be a concentration of runoff.
- Fields receiving digester nutrients may not exceed tolerable soil loss ("T").

1.5.5 Spreading Sites Submittals

Permittee requests to amend a nutrient management plan to include landspreading sites not found in an approved management plan shall include the following information:

- The location of the site on maps and aerial photographs, and soil survey maps.
- A unique site identification number
- Information used to verify the site meets locational requirements of the permit,
- A nutrient budget for the site consistent with permit requirements. This includes a completed worksheet outlining the process in determining appropriate spreading rates for each additional site, including a crop history identifying the previous season's crops and future cropping plans for each site and estimated nutrient uptake.
- A demonstration that the field(s) in question meets tolerable soil loss rate.
- Maps that show where land application is prohibited or restricted on a map or aerial photograph of the site.
- Soil samples if available for one-time applications. If the permittee wishes to use the site for subsequent applications, soil samples shall be submitted prior to additional landspreading.

1.6 Added Participating Farms

New non-emergency participants that land apply digester nutrients in the 3 project watersheds shall meet all of the requirements of the "Land Spreading Plan for Digested and Solid Manure, Middleton Community Digester - 2/28/2013 (revised 8/23/2017)." The document is included in Attachment 1 of the permit.

1.7 Monitoring and Sampling Requirements

The permittee shall comply with the monitoring and sampling requirements specified below for the listed sampling point(s), and the following conditions.

1.7.1 Recording of Results-Sampling

Record the following information for each digester nutrients sample taken, prior to land spreading:

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

1.7.2 Analysis of Samples

Digester nutrients used for land application shall be sampled in accordance with this WPDES permit condition. Digester nutrients shall be analyzed on at least a monthly basis for nitrogen, phosphorus and percent solids in months when the digester nutrients are applied. Digester nutrients and soil samples shall be analyzed by a laboratory certified under s. [ATCP 50.50](#). The Department may specify alternative methods for sampling in the WPDES permit. The permittee shall submit appropriate quality control information for sampling and analysis upon written request of the Department for participating farms.

1.7.3 Sampling Requirements

The permittee shall collect and analyze representative samples of land applied digester nutrients for the parameters outlined in the monitoring requirements for each sample point. The permittee shall also collect and analyze soils from fields used for digester nutrients applications at least once every four years. Sampling of digester nutrients and soils shall be done in accordance with s. NR 243.19(1)(c).

1.8 Sampling Point(s)

The samples shall be collected at each of the participating farms, which do not have a CAFO permit, for the following sample points.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, System Description (including capacity, legal location, and action needed as applicable), and Treatment Description
008	Digested manure diverted prior to the solids removal system at the manure digester returned to participating farms, which do not have a CAFO permit, for storage and land application. Samples shall be collected from the storage lagoon at each farm prior to land application.
009	This sample may be comprised of centrate from the centrifuge at the manure digester or concentrated centrate from the Springfield Clean Water nutrient concentration system (NCS) or a combination of these two products that are returned to the participating farms, which do not have a CAFO permit, for storage and land application. Samples shall be collected from the storage lagoon at each farm prior to land application.
010	Concentrated centrate from the Springfield Clean Water nutrient concentration system (NCS) that is returned to the new participating farm, which does not have a CAFO permit, for storage and land application. Samples shall be collected from the storage lagoon at each individual farm prior to land application.

1.8.1 Sampling Point 008 – Digestate to Participant Farms; 009- Centrate(s) to Participant Farms and 010- Conc. Centrate to New Farm

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limits and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	Monthly	Grab	
Nitrogen, Available		lb/1000gal	Monthly	Calculated	
Phosphorus, Total		lb/1000gal	Monthly	Grab	
Phosphorus, Available		lb/1000gal	Monthly	Calculated	
Solids, Total		Percent	Monthly	Grab	

Reporting: A summary of results for each farm shall be submitted with the Annual Report for each participating farm. Sampling is only required when land application has actually occurred.

Daily Log Requirements	
All discharge and monitoring activities shall be documented on daily log report form 3200-123A or a Department approved equivalent log sheet. The daily log reports shall be made available to the Department by the permittee as described under Record Keeping and Retention in the Standard Requirements section, if requested.	
Parameters	Units
Date of Application	Date
Field ID	Number/Name
Acres Applied	Number of Acres
Manure Source	Specify Storage Facility or Barn
Spreader Volume	Tons or Gallons
Number of Loads	Number
Soil Conditions	Dry, Wet, Frozen, Snow Covered
Temperature During Application	°F
Precipitation During Application	Describe Precipitation
Application Method	Surface Applied, Injected, Incorporated

Annual Report

The permittee shall submit an Annual Report, including Form 3200-123 or a Department approved equivalent that summarizes all landspreading activities. If requested, records shall be made available to the Department by the permittee including the information identified below, the lab analyses of the digester nutrients and other waste landspread, the "T" compliance worksheet for all fields, and the soil test frequency in the past four years. The Annual Report is due each year by the date specified in the Schedules section of this permit. Nitrogen and phosphorus from all sources applied to a given field, including commercial fertilizers, shall be included in the "Total Nitrogen" and "Total Phosphorus" sections of the Annual Report.

Parameters	Units	Sample Type
Date of Application	Date	-
Field ID	Number/Name	-
Acres Applied	Number of Acres	-
Slope	Percent	-
Soil Test P Ave.	ppm	-
Manure Source	-	Composite
Current Crop	-	-
Crop Nitrogen Needs (per soil test)	Pounds/Acre	-
Crop P ₂ O ₅ Needs (per soil test)	Pounds/Acre	-
Manure Analysis: Available Nitrogen	Pounds/1000 Gallons	Calculated
Manure Analysis: Available P ₂ O ₅	Pounds/1000 Gallons	Calculated
Manure Application Rate	Gallons/Acre	-
Manure Applied: Nitrogen	Pounds/Acre	-
Manure Applied: P ₂ O ₅	Pounds/Acre	-
Previous Crop	-	-
Legume Nitrogen Credit	Pounds/Acre	-
Second Year Manure Credit	Pounds/Acre	-
Additional Fertilizer: Nitrogen	Pounds/Acre	-
Additional Fertilizer: P ₂ O ₅	Pounds/Acre	-
Total Nitrogen Applied	Pounds/Acre	-
Total P ₂ O ₅ Applied	Pounds/Acre	-
Soil Conditions	Dry, Wet, Frozen, Snow Covered	-
Application Method	Surface Applied, Injected, Incorporated	-
Banked	Yes/No	-
Field Restrictions	Per Nutrient Management Plan	-

2 In-Plant Requirements

2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
003	Concentrated centrate from the UF/RO process that is returned to the participating farms, which do not have a CAFO permit, for storage and land application. Centrate is the liquid that comes from the centrifuge which is the final step of the solids removal process at the digester facility. The centrate is further processed in the NCS to remove a portion of the water producing the concentrated centrate. Flow volume monitored at by flow meter located prior to discharge.
004	Concentrated centrate from the UF/RO process at Springfield Clean Water directed to the large side of the storage lagoon at the manure digester. Flow volume monitored by flow meter in pipe between concentrated centrate tank in NCS building and the lagoon. See 003 for centrate description.
005	This sample is comprised of concentrated centrate from the Springfield Clean Water nutrient concentration system (NCS) that is returned to future participating farms, which do not have a CAFO permit, for storage and land application. Flow volume monitored by flow meter located prior to discharge. See 003 for centrate description.
106	Distribution of an organic liquid fertilizer product derived from the output of the nutrient concentration system.

2.2 Monitoring Requirements and Limitations

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

2.2.1 Sampling Point 003 - Conc. Centrate to Part. Farms

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Weekly	Total Daily	

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.				
Farm Name	Volume	Units	Date	Sample Type
		Gallons/Day		Log

2.2.2 Sampling Point 004 - Conc. Centrate to Lagoon

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Weekly	Total Daily	

2.2.3 Sampling Point 005 - Conc. Centrate to New Farms

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Weekly	Total Daily	

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.				
Farm Name	Volume	Units	Date	Sample Type
		Gallons/Day		Log

2.2.4 Sampling Point 106 - Liquid Fertilizer Product

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Weekly	Total Daily	
Nitrogen, Total		lb/1000gal	Monthly	Grab	
Nitrogen, Available		lb/1000gal	Monthly	Calculated	
Phosphorus, Total		lb/1000gal	Monthly	Grab	
Phosphorus, Available		lb/1000gal	Monthly	Calculated	

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.				
Facility Name	Volume	Units	Date	Sample Type
		Gallons/Day		Log

2.2.4.1 Department Approval

The permittee shall obtain written Department approval for the distribution of digester products if the permittee wants to transfer responsibility to another entity for the land application, disposal or use of digester products that will be

distributed in accordance with one of the methods listed in s. NR 243.142(2). If written approval is not obtained, the permittee remains responsible for the distributed digester products.

2.2.4.2 Distribution Approval Process

To obtain Department approval for the purposes of transferring responsibility, for each facility that has not been previously approved, the permittee shall provide to the Department the information required in this subsection to determine that the conditions of approval are being met by the permittee or recipients of the digester products. Also, neither the permittee or a contract hauler working on behalf of the permittee may land apply the distributed digester products.

- Facility name, WPDES permit number or license from DATCP, location of digester product uses or distribution as a commercial product.
- Description of beneficial use for the digester product.
- Demonstration of proper storage used for distributed digester products, s. NR 243.142(3)(c).

2.2.4.3 Record Keeping

The permittee shall keep records that identify the name and address of the recipient of the distributed digester product, the quantity distributed and the dates of distribution. The permittee shall keep these records for at least 5 years and shall make them available to the Department upon request.

3 Surface Water Requirements

3.1 Sampling Point(s)

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

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
001	Discharge water, permeate, from Ultrafiltration (UF) and Reverse Osmosis (RO) processing of centrate received from the manure digester. Sampling may take place from the tank overflow pipe in the NCS building prior to going into the underground pipe leading to the Pheasant Branch Creek or at the point where the underground pipe discharges into the Pheasant Branch Creek.

3.2 Monitoring Requirements and Effluent Limitations

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

3.2.1 Sampling Point (Outfall) 001 - UF/RO Discharge Water

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Daily	Total Daily	
BOD ₅ , Total	Daily Max	8.2 mg/L	3/Week	24-Hr Flow Prop Comp	Applies May through October
BOD ₅ , Total	Weekly Avg	5.0 mg/L	3/Week	24-Hr Flow Prop Comp	Applies May through October
BOD ₅ , Total	Monthly Avg	5.0 mg/L	3/Week	24-Hr Flow Prop Comp	Applies May through October
BOD ₅ , Total	Daily Max	16 mg/L	3/Week	24-Hr Flow Prop Comp	Applies November through April
BOD ₅ , Total	Weekly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Applies November through April
BOD ₅ , Total	Monthly Avg	10 mg/L	3/Week	24-Hr Flow Prop Comp	Applies November through April
pH Field	Daily Min	6.0 su	Weekly	Grab	
pH Field	Daily Max	9.0 su	Weekly	Grab	
Dissolved Oxygen	Daily Min	7.0 mg/L	3/Week	Grab	
Fecal Coliform	Daily Max	400 #/100 ml	Weekly	Grab	Monitoring and limits apply May - September
Fecal Coliform	Monthly Avg	400 #/100 ml	Weekly	Grab	Monitoring and limits apply May - September
Temperature Maximum		deg F	3/Week	Measure	See Table 2 for limits.
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	9.9 mg/L	Weekly	24-Hr Flow Prop Comp	Applies October through March

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	6.1 mg/L	Weekly	24-Hr Flow Prop Comp	Applies April and May
Nitrogen, Ammonia (NH ₃ -N) Total	Weekly Avg	5.0 mg/L	Weekly	24-Hr Flow Prop Comp	Applies June through September
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	5.0 mg/L	Weekly	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	1.0 mg/L	Weekly	24-Hr Flow Prop Comp	This limit reflects the minimum control level, and must be offset by approved practices.
Phosphorus, Total		lbs/day	Weekly	Calculated	Report lbs/day of phosphorus discharged. Calculate the daily mass discharge of phosphorus in lbs/day on the same day phosphorus sampling occurs. Daily mass (lbs/day) = daily concentration (mg/L) × daily flow (MGD) × 8.34.
Phosphorus, Total		lbs/month	Monthly	Calculated	Report lbs/month of TP discharged. TP discharged (lbs/month) = Average of weekly lbs/day of TP discharged for the month x number of days of discharge for the month. Report the product as TP lbs/month for the last day of the month on the DMR.
WQT TP Credits		lbs/month	Monthly	Calculated	Report the credits used. See 'Reporting Monthly Total WQT TP Credits' in subsection below 3.2.1.8. Available TP Credits for the calendar year are specified in the approved Water Quality Trading Plan.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
WQT TP Computed Compliance	Monthly Total	0 lbs/month	Monthly	Calculated	Report the WQT TP Computed Compliance value. See subsection 3.2.1.8 below for instructions on water quality trading. Compliance with the limit is evaluated each month of the yearly discharge period.
Suspended Solids, Total	Monthly Avg	10 mg/L	Weekly	24-Hr Flow Prop Comp	This limit reflects the minimum control level, and must be offset by approved practices.
Suspended Solids, Total	Daily Max	16 mg/L	Weekly	24-Hr Flow Prop Comp	This limit reflects the minimum control level, and must be offset by approved practices.
Suspended Solids, Total		lbs/day	Weekly	Calculated	Report lbs/day of total suspended solids (TSS) discharged. Calculate the daily mass discharge of TSS in lbs/day on the same day TSS sampling occurs. Daily mass (lbs/day) = daily concentration (mg/L) × daily flow (MGD) × 8.34.
Suspended Solids, Total		lbs/month	Monthly	Calculated	Report lbs/month of TSS discharged. TSS discharged (lbs/month) = Average of weekly lbs/day of TSS discharged for the month × number of days of discharge for the month. Report the product as TSS lbs/month for the last day of the month on the DMR.
WQT TSS Credits		lbs/month	Monthly	Calculated	Report the credits used. See 'Reporting Monthly Total WQT TSS Credits in subsection below 3.2.1.9. Available TSS Credits for the calendar year are specified in the approved Water Quality Trading Plan.

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
WQT TSS Computed Compliance	Monthly Total	0 lbs/month	Monthly	Calculated	Report the WQT TSS Computed Compliance value. See subsection 3.2.1.9 below for instructions on water quality trading. Compliance with the limit is evaluated each month of the yearly discharge period.
Hardness, Total as CaCO ₃		mg/L	Quarterly	24-Hr Flow Prop Comp	
Chloride		mg/L	Quarterly	24-Hr Flow Prop Comp	
Arsenic, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Cadmium, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Chromium, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Copper, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Lead, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Nickel, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Zinc, Total Recoverable		µg/L	Quarterly	24-Hr Flow Prop Comp	
Acute WET		TU _a	See Listed Qtr(s)	24-Hr Flow Prop Comp	
Chronic WET		TU _c	See Listed Qtr(s)	24-Hr Flow Prop Comp	

3.2.1.1 Total Metals Analyses

Measurements of total metals and total recoverable metals shall be considered as equivalent.

3.2.1.2 Effluent Temperature Monitoring

For manually measuring effluent temperature, grab samples should be collected at 6 evenly spaced intervals during the 24-hour period. Alternative sampling intervals may be approved if the permittee can show that the maximum effluent temperature is captured during the sampling interval. For monitoring temperature continuously, collect measurements in accordance with s. NR 218.04(13). This means that discrete measurements shall be recorded at intervals of not more than 15 minutes during the 24-hour period. In either case, report the maximum temperature measured during the day on the DMR. For seasonal discharges collect measurements either manually or continuously during the period of operation and report the daily maximum effluent temperature on the DMR.

3.2.1.3 Effluent Temperature Limitations

Determination of Need for Effluent Limits: The effluent limitations for “Temperature, Maximum” become effective when the permit is issued. Monitoring is required 3X/week upon permit issuance. Daily maximum temperatures shall be reported so that applicable daily maximum limits can be compared to the reported daily maximum temperatures and applicable weekly average limits can be compared to the weekly averages of the reported daily maximum temperatures. After completion of at least one year of temperature data collection the permittee may request that the Department make a determination of the need for limits under s. NR 106.56, Wis. Adm. Code. Within 60 days of such request the Department will make that determination. If the Department determines that effluent limitations are unnecessary based on the procedures in NR 106.56, the Department shall notify the permittee that the limitations are unnecessary pursuant to NR106.56. A permit modification will be required to remove the temperature limits from this permit. If, after reviewing the data, the Department determines that effluent limitations for “Temperature, Maximum” are necessary based on the procedures in NR 106.56, the requirement to meet the effluent limitations will not be removed nor will the monitoring frequency be reduced. Permittees may then wish to pursue a re-evaluation of the limits based on NR 106 – ‘Subchapters V and VI Effluent Limitations for Temperature’ or NR 102.26 – Site Specific Ambient Temperature. If the re-calculation of limits results in revisions to the temperature limits, a permit modification will be required to include the revised limits in the permit. Any relaxed limits pursuant to NR 106 sub V or VI or NR 102.26 would need to satisfy antidegradation requirements pursuant to NR 207 - Water Quality Antidegradation.

Effluent Limitations for 'Temperature Maximum' (Effective per the Schedules section):

Month	Weekly Average Effluent Limitation (°F)	Daily Maximum Effluent Limitation (°F)
JAN	57	98
FEB	58	98
MAR	59	97
APR	59	95
MAY	69	94
JUN	81	93
JUL	87	93
AUG	88	93
SEP	80	93
OCT	67	96
NOV	54	96
DEC	56	97

3.2.1.4 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Grab sample from Pheasant Branch Creek collected upstream of the outfall.

Instream Waste Concentration (IWC): 89 %

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 shall be conducted twice during the permit term in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Acute:** July 1- September 30, 2019, October 1- December 31, 2021

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in April 1 – June 30, 2023.

Chronic tests shall be conducted three times during the permit term in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Chronic:** January 1 – March 31, 2019, April 1 – June 30, 2021, July 1- September 30, 2022

Chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in October 1- December 3, 2024.

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

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

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species. 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 1.12 for either species. The TU_c shall be calculated as follows: $TU_c = 100 \div IC_{25}$.

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

3.2.1.5 Total Maximum Daily Load (TMDL) Limitations

Approved TMDL: The Rock River TMDL Waste Load Allocation (WLA) for Total Phosphorus and Total Suspended Solids was approved by the U.S. Environmental Protection Agency on September 8, 2011. There is no reserve capacity available for new discharges in the approved TMDL so WLA limits for phosphorus are: 0 lbs/month and total suspended solids are: 0 lbs/month.

3.2.1.6 Monthly Log Compliance Calculations – Available Credits

WQT TP Credits available at the beginning of a month are equal to annual WQT TP Credits established in the Water Quality Trading Plan minus the sum of all credits used during the previous months of the calendar year.

WQT TSS Credits available at the beginning of a month are equal to annual WQT TSS Credits established in the Water Quality Trading Plan minus the sum of all credits used during the previous months of the calendar year.

3.2.1.7 Phosphorus and Total Suspended Solids Water Quality Trading (WQT)

The permittee may use water quality trading to demonstrate compliance with WQBELs for total phosphorus and total suspended solids. This new discharge located in the Rock River TMDL area was not assigned a wasteload allocation in the TMDL. The Rock River TMDL has no available reserve capacity; therefore, the allowed suspended solids and phosphorus discharge limit is a net mass discharge of zero per ss. NR 217.13(8) Wis. Adm. Code. Pollutant reduction credits are available as specified in Water Quality Trading Plan WQT-2017-0004 (TP credits = 99 lbs/yr and TSS credits = 145,733 lbs/yr) or approved amendments thereof.

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 changes in the number of available credits require a permit modification (see section 3.2.1.12 below).

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 TP & TSS contained in this subsection.

Monthly Log – Demonstrated Compliance			
All discharge 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	Units	Sample Frequency	Sample Type
Calendar Year		Annual	Log
Discharge Month	-	Monthly	Log
WQT TP Credits Available Each Year	Pounds/Year	Annual	Log
Available WQT TP Credits (beginning of each month)	Pounds/ Year	Monthly	Calculated See section 3.2.1.6
Pounds Phosphorus Discharged	Pounds/Month	Monthly	Calculated See section 3.2.1.8
WQT TP Credits Used	Pounds/Month	Monthly	Calculated See section 3.2.1.8
Remaining Annual WQT TP Credits (end of the month)	Pounds/Year	Monthly	Calculated
WQT TSS Credits Available Each Year	Pounds/Year	Annual	Log
Available WQT TSS Credits (beginning of each month)	Pounds/ Year	Monthly	Calculated See section 3.2.1.6

Monthly Log – Demonstrated Compliance			
All discharge 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	Units	Sample Frequency	Sample Type
Pounds Total Suspended Solids Discharged	Pounds/Month	Monthly	Calculated See section 3.2.1.9
WQT TSS Credits Used	Pounds/Month	Monthly	Calculated See section 3.2.1.9
Remaining Annual WQT TSS Credits (end of the month)	Pounds/Year	Monthly	Calculated

3.2.1.8 Demonstrating Compliance with TP WQBELs Using Water Quality Trading

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

REPORTING MONTHLY WQT TP CREDITS USED

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

- On a monthly basis, average all of the weekly values of phosphorus discharged in lbs/day reported during the month. Then multiply the average by the number of days of discharge during the month and record this value on the monthly log as “Pounds Phosphorus Discharged” for the month. Select and record the “WQT TP Credits” used (in lbs/month) in order to comply with the TP mass discharge limit of zero on the monthly log. Report this value on the DMR for “WQT TP Credits” used (in lbs/month) for the last day of the month on the DMR.

Phosphorus discharged (in lbs/month) = Average of weekly values TP discharged (in lbs/day) × Number of days of discharge/month

Note: The total number of TP credits selected for the twelve months of a calendar year shall not exceed that specified in the Water Quality Trading Plan WQT-2017-0004.

WQT TP COMPUTED COMPLIANCE (lbs/month)

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

- “WQT TP Computed Compliance” is based on the monthly WQT TP credits used compared to the pounds of phosphorus discharged in lbs/month. Subtract the WQT TP Credits (in lbs/month) from the TP discharged (in lbs/month) and report the difference as ‘WQT TP Computed Compliance’ (in lbs/month) on the DMR for the last day of the month. This will result in a “0” reported for Computed Compliance whenever credits available at the beginning of a month are greater than or equal to the pounds of phosphorus discharged during that month. Refer to monthly log form for available credits.

3.2.1.9 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. The method used for demonstrating TSS compliance is equivalent to the one that is detailed in section 3.2.1.8 for TP.

REPORTING MONTHLY WQT TSS CREDITS USED

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

- On a monthly basis, average all of the weekly values of total suspended solids discharged in lbs/day reported during the month. Then multiply the average by the number of days of discharge during the month and record this value on the monthly log as “Pounds Total Suspended Solids Discharged” for the month. Select and record the “WQT TSS Credits” used (in lbs/month) in order to comply with the TSS mass discharge limit of zero on the monthly log. Report this value on the DMR for “WQT TSS Credits” used (in lbs/month) for the last day of the month on the DMR.

$$\text{WQT TSS Credits (in lbs/month)} = \text{Average of weekly values TSS discharged (in lbs/day)} \times \text{Number of days of discharge/month}$$

Note: The total number of TSS credits selected for the twelve months of a calendar year shall not exceed that specified in the Water Quality Trading Plan WQT-2017-0004.

WQT TSS COMPUTED COMPLIANCE

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

- “WQT TSS Computed Compliance” is based on the monthly WQT TSS credits used compared to the pounds of total suspended solids discharged in lbs/month. Subtract the WQT TSS Credits (in lbs/month) from the TSS discharged (in lbs/month) and report the difference as ‘WQT TSS Computed Compliance’ (in lbs/month) on the DMR for the last day of the month. This will result in a “0” reported for Computed Compliance whenever credits available at the beginning of a month are greater than or equal to the pounds of total suspended solids discharged during that month. Refer to monthly log form for available credits.

3.2.1.10 Additional Water Quality Trading Requirements

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

- Failure to implement any of the terms or conditions of the approved water quality trading plan WQT-2017-0004 is a violation of this permit.
- Each month the permittee shall certify that the grassed waterways 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 grassed waterways 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 waterway 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.

3.2.1.11 Annual Water Quality Trading Report

When using water quality trading to demonstrate compliance with WQBELs, the permittee shall report by January 31st each year the following information:

- The number of pollutant reduction credits (lbs/month) for TP and TSS used each month of the previous year to demonstrate compliance, the lbs/month of TP credits available at the start of each month and the lbs/month of TSS credits available at the start of each month;
- The source of each month's pollutant reduction credits by identifying the approved water quality trading plan that details the source;
- 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
- 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.

3.2.1.12 Water Quality Trading Reopener Clause

Under any of the following conditions as provided by s. 283.53(2), Wis. Stats. and Wis. Adm. Code NR 203.135 and 203.136, 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.

3.2.1.13 Submittal of Permit Application for Next Reissuance and Pollutant Trading Plan or Variance Application

The permittee shall submit the permit application for the next reissuance at least 6 months prior to expiration of this permit. The permittee has submitted a Water Quality Trading Plan (WQT-2017-0004) that was approved by WDNR on September 19, 2017. If the permittee intends to pursue pollutant trading to achieve compliance in a manner that differs from that allowed in this permit, the permittee shall submit a new application for water quality trading with the application for the next reissuance. If other compliance measures will be used in combination with pollutant trading to achieve compliance with the final water quality-based limit, the reissued permit will specify a schedule for these alternative measures. If water quality trading or other compliance option is no longer viable, the permittee may seek a variance and shall submit an application for a variance with the application for the next reissuance.

4 Schedules

4.1 Annual Reports

Submit Annual Reports by January 31 of each year in accordance with the Annual Reporting requirements subsection in Operational and Sampling Requirements for Digester Nutrients.

Required Action	Due Date
Submit Annual Report #1:	01/31/2019
Submit Annual Report #2:	01/31/2020
Submit Annual Report #3:	01/31/2021
Submit Annual Report #4:	01/31/2022
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	01/31/2023

4.2 Operator Certification

Required Action	Due Date
Operator Certification: The designated operator-in-charge shall complete the required exam for Unique Treatment System, subclass U with a passing score and satisfy the one year of subclass specific experience.	04/01/2019

5 Standard Requirements

NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. 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).

5.1 Reporting and Monitoring Requirements for Industrial Discharges

5.1.1 Monitoring Results

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

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

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

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

5.1.2 Sampling and Testing Procedures

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

5.1.3 Recording of Results

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

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

5.1.4 Reporting of Monitoring Results

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

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

5.1.5 Records Retention

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

5.1.6 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

5.1.7 Reporting Requirements – Alterations or Additions

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

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

5.2 System Operating Requirements for Industrial Discharges

5.2.1 Noncompliance Reporting

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

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

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

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

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

5.2.2 Bypass

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

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

5.2.3 Scheduled Bypass

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

Department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

5.2.4 Controlled Diversions

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

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

5.2.5 Proper Operation and Maintenance

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

5.2.6 Operator Certification

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

5.2.7 Spill Reporting

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

5.2.8 Planned Changes

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

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

5.2.9 Duty to Halt or Reduce Activity

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

5.3 Surface Water Requirements for Industrial Discharges

5.3.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

For pollutants with water quality-based effluent limits below the Limit of Quantitation (LOQ) in this permit, the LOQ calculated by the permittee and reported on the Discharge Monitoring Reports (DMRs) is incorporated by reference into this permit. The LOQ shall be reported on the DMRs, shall be the lowest quantifiable level practicable, and shall be no greater than the minimum level (ML) specified in or approved under 40 CFR Part 136 for the pollutant at the time this permit was issued, unless this permit specifies a higher LOQ.

5.3.2 Appropriate Formulas for Effluent Calculations

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

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

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

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

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

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

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

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

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

5.3.3 Effluent Temperature Requirements

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

Cold Shock Standard – Water temperatures of the discharge shall be controlled in a manner as to protect fish and aquatic life uses from the deleterious effects of cold shock. ‘Cold Shock’ means exposure of aquatic organisms to a

rapid decrease in temperature and a sustained exposure to low temperature that induces abnormal behavior or physiological performance and may lead to death.

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

5.3.4 Visible Foam or Floating Solids

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

5.3.5 Surface Water Uses and Criteria

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

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

5.3.6 Whole Effluent Toxicity (WET) Monitoring Requirements

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

5.3.7 Whole Effluent Toxicity (WET) Identification and Reduction

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

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including some or all of the following actions:
 - (a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
 - (b) Identify the compound(s) causing toxicity

- (c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)
- (d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)
- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.

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

5.4 General Conditions

NR 205, Wisconsin Administrative Code: The conditions in s. NR 205.07(1), 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 s. NR 205.07(1).

5.4.1 Duty to comply

The permittee shall comply with all conditions of the permit. Any permit noncompliance is a violation of the permit and is grounds for enforcement action; permit termination, revocation and reissuance or modification; or denial of a permit reissuance application. If a permittee violates any terms of the permit, the permittee is subject to the penalties established in ch. 283, Wis. Stats.

5.4.2 Permit Actions

As provided in s. 283.53, Wis. Stats., after notice and opportunity for a hearing the permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5.4.3 Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. The permit does not authorize any injury or damage to private property or any invasion of personal rights, or any infringement of federal, state or local laws or regulations.

5.4.4 Schedules

Reports of compliance or noncompliance with interim and final requirements contained in any schedule of the permit shall be submitted in writing within 14 days after the schedule date, except that progress reports shall be submitted in writing on or before each schedule date for each report. Any report of noncompliance shall include the cause of noncompliance, a description of remedial actions taken and an estimate of the effect of the noncompliance on the permittee's ability to meet the remaining schedule dates.

5.4.5 Inspection and Entry

The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

- enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are required under the conditions of the permit;
- have access to and copy, at reasonable times, any records that are required under the conditions of the permit;

- inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and
- sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

5.4.6 Transfers

A permit is not transferable to any person except after notice to the Department. In the event of a transfer of control of a permitted facility, the prospective owner or operator shall file a new permit application and shall file a stipulation of permit acceptance with the Department WPDES permit section. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and to reflect the requirements of ch. 283, Stats.

5.4.7 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any adverse impact on the waters of the state resulting from noncompliance with the permit.

5.4.8 Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking or reissuing the permit or to determine compliance with the permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by the permittee.

5.4.9 Recording of Results-Sampling

For each manure, process wastewater or soil sample taken by the permittee, the permittee shall record the following information:

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

5.4.10 Recording of Results-Inspections

For each inspection conducted by the permittee, the permittee shall record the following information:

- The date and name of the person(s) performing the inspection,
- An inspection description, including components inspected,
- Details of what was discovered during the inspection,
- Recommendations for repair or maintenance,
- Any corrective actions taken.

5.4.11 Spill Reporting

The permittee shall notify the Department in 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 or restrictions established in this permit, or the spill or accidental release of the material that 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, and the “Noncompliance - 24 Hour Reporting,” section of this permit.

5.4.12 Planned Changes

The permittee shall report to the Department any facility or operation expansion, production increase or process modifications which will result in new, different or increased amount of manure or process wastewater produced or handled by the permittee or which will result in new, different or increased discharges of pollutants to waters of the state. The report shall either be a new permit application, or if the new discharge will not violate the conditions of this permit, a written notice of the planned change. The report shall contain a description of the planned change, an estimate of the new, different or increased discharge of pollutants and a description of the effect of change will on current manure and process wastewater handling practices. Changes cannot be implemented prior to reporting changes to the Department. Following receipt of this report, the Department may require that the permittee submit plans and specifications, or modify its nutrient management plan to address the planned change. Changes requiring Department action or approval may not be initiated prior to Department action or approval.

5.4.13 Submittal of Plans and Specifications

In accordance with s. NR 243.15, the permittee shall submit plans and specifications for proposed new or upgraded reviewable facilities or systems to the Department for approval prior to construction. Post construction documentation for these projects shall be submitted within 60 days of completion of the project, or as otherwise specified by the Department.

5.4.14 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

5.4.15 Reporting Requirements – Alterations or Additions

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

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

5.4.16 Noncompliance - 24 Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. This includes any upset which exceeds any effluent limitation in the permit, or violations of the discharge limitations listed in the permit.

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

5.4.17 Reports and Submittal Certification

Signature(s) on reports required by this permit shall certify to the best of the permittee's knowledge the reports to be true, accurate and complete. All reports required by this permit shall be signed 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.

5.5 Operational and Sampling Requirements for Digester Nutrients

5.5.1 Responsibility for Digester Nutrients

The permittee is responsible for the storage, management and land application of all digester nutrients processed by the operation. Digester nutrients include digestate, concentrated centrate from the third Party NCS and centrate. The permittee is also responsible for any manure received from non-permitted operations that are accepted by the permittee for storage, management or land application.

5.5.2 Distribution of Digester Nutrients

All digester nutrients processed by the permittee are the responsibility of the permittee and shall be stored and applied in compliance with the terms and conditions of this permit and the approved nutrient management plan, except if the digester nutrients are distributed to another person in accordance with s. NR 243.142 and the Department has approved the transfer of responsibility in writing.

To transfer responsibility for handling, storage and application of manure, a permittee shall submit a written request to the Department. At minimum the request shall indicate how the permittee will comply with all conditions identified in ch. NR 243.142(3), Wis. Adm. Code. If approved, the permittee will be responsible for the following recordkeeping and reporting:

- Update the nutrient management plan to include the estimated amount of manure and process wastewater to be transferred, and record the actual amount transferred at the time of transfer.
- Maintain records that identify the name and address of the recipient of the manure or process wastewater, quantity, and dates of transfer.
- Provide the recipient with written information regarding the nutrient content (nitrogen and phosphorus at minimum) of the manure and process wastewater.
- Submit transfer reports to the Department with the annual report.
- Records shall be maintained for at least 5 years.

Upon written approval from the Department, the permittee is not responsible for the land application, use or disposal of distributed manure or process wastewater if the manure or process wastewater is distributed in compliance with the conditions of the Department approval and s. NR 243.142.

5.5.3 Department Review of Nutrient Management Plans

The Department reserves the right to review the Nutrient Management Plan at any time for application rates and cover crop nutrient removal rates, as well as the timing and methods of application. If the Department determines that a landspreading site is no longer acceptable for manure applications, the permittee shall modify the Nutrient Management Plan to remove the site from the plan. In addition, if the Department determines application rates need to be adjusted for individual fields, the permittee shall modify the Nutrient Management Plan. All Department initiated modifications shall be completed by the permittee within 3 months of written notification from the Department.

5.5.4 Record Keeping and Retention

The permittee shall keep records associated with production area and land application activities in accordance with s. NR 243.19(2). The permittee shall retain these records and 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 5 years from the date of the sample, measurement, report or application. The Department may request that this period be extended by issuing a public notice to modify the permit to extend this period. These records shall be made available to the Department upon request.

Note: A form for recording daily land application activities (Form 3200-123A) can be obtained at regional offices of the Department or the Department's Bureau of Watershed Management, 101 S. Webster St., P.O. Box 7921, Madison, Wisconsin 53707.

Attachment 1

Below is the original document that provided the basis for the requirements for the permittee and participating farms in the first WPDES permit. The current permit includes changes to the permit conditions agreed upon by the Department and the permittee. These include 1) a reduction from 25 to 21 percent for the digestate allowed to bypass solids separation, 2) substrate phosphorus removal criteria changed to a straight 70% replacing the progression from 60 to 100% shown in the table below, 3) digester nutrients are now composed of digestate, concentrated centrate from the third Party NCS and centrate. Concentrated centrate from the third party NCS is returned to participating farms or the lagoon storage at the digester facility and is composed of centrate that is processed to reduce the water content.

LAND SPREADING PLAN FOR DIGESTED AND SOLID MANURE MIDDLETON COMMUNITY DIGESTER 2/28/2013

- All liquid manure from the participating farms will be directed to the digester. In order to balance nutrient needs of the initial 3 participating farms and avoid importing commercial Phosphorus into the area, up to 25% of the daily volume of Digestate (Digested Manure and Substrates) may bypass the solids separation equipment. This percentage will be evaluated annually as part of the project performance reporting outlined in # 3 below. This Digestate volume will be directed to storage at the digester facility or at the participating farms for land application to crop fields in a manner that matches lower soil test phosphorus levels, nutrient loadings, and crop nutrient needs, in accordance with approved Nutrient Management Plans.
- The Digestate processed by the solids separation process must transfer at least 60% of the phosphorus in manure and 60% - 100% of the phosphorus in the substrates from the digestate into the digester solids as specified in Table 1. The liquid from the separation process, Centrate will be directed to storage at the Middleton Digester site or approved storage at participating farms for land application, in accordance with approved Nutrient Management Plans.

Table 1: Minimum Phosphorus Removal Requirements

Operational Period	Removal Phosphorus In Manure	Removal of Phosphorus in Other Substrates
Year 1	60%	60%
Year 2	60%	70%
Year 3	60%	80%
Year 4	60%	90%
Year 5 and forward	60%	100%

- If at any time during the term of this agreement the nutrient management plan of the participating farms requires additional phosphorous to meet crop up take requirements, the permittee may apply for a permit modification to adjust the phosphorus removal requirements as outlined in Table 1. This modification request would be needed to avoid the importing and applying of commercial phosphorus.
- Digester solids may be returned to the participating farms for bedding or for application on crop fields with low organic matter meeting specific field criteria that will be identified prior to permit issuance. All other digester solids must be removed from the following watersheds: Lake Mendota - Yahara River, Lake Monona - Yahara River, and the Headwaters - Yahara River.
- Based on existing contracts, the solid manure could be retained by the participating farms, or directed to the digester, at the farmers' discretion. The total solid manure produced by the 3 farms is about 3,600 tons/year. Some of the solid manure is planned to be directed to the digester site.

- Cropland receiving solid manure (non-digested solid manure) or digester nutrients (centrate and digestate) need to have a current NRCS 590 nutrient management plan and apply the nutrients according to their plan. WPDES permitted farms must also follow their approved Nutrient Management Plan.
- A plan for addressing emergencies and land application of manure during other critical times shall be developed for this project prior to permit issuance. This plan shall provide a reserve capacity during the period of Dec. 1 through May 1 of each year. The reserve capacity shall be at least 200,000 gallons/month. The plan will also define the terms, fees, and conditions for manure going into the digester and digested manure being returned to the farms.

DIGESTER NUTRIENTS, and/or SOLID MANURE LAND SPREADING

- 1) This project was selected to assist with Phosphorus removal efforts from the watersheds draining into Lake Mendota consistent with recommendations from Yahara Clean and the Clean Lakes Alliance. In order to lower soil test phosphorus levels in the area watersheds and to reduce the delivery of Phosphorus to receiving waters in the Yahara Watersheds, all fields involved in this project must be included in an approved NRCS 590 Nutrient Management Plan. Digester nutrients and/or solid manure must be land spread according to the soil test phosphorus levels and crop uptake needs of each land spreading field as follows:
 - o Fields with soil test P < 50 - can spread up to the crop N needs.
 - o Fields with soil test P levels between 51 – 100 ppm - can be spread up to 75% of the crop P needs, for crops to be grown over a maximum rotation length of 4 years (CAFOs) or 8 years (all others), *
 - o Fields with soil test P levels between 101 – 200 ppm - can be spread up to 50% of the crop P needs, for crops to be grown over a maximum rotation length of 4 years (CAFOs) or 8 years (all others),
 - o Fields with soil test P > 200 - spreading phosphorus is prohibited.

Digester nutrients can be combined with manure, commercial fertilizer, or other nutrient sources in order to reach the specified % of crop P needs. Milking parlor wastewater is excluded from the restrictions.

* This requirement can be adjusted up to 100 % for operations that utilize alfalfa in a rotation and can demonstrate a need.

All fields must meet a Phosphorus Index (PI) of 6 or less throughout the rotation. Starting with Crop Year 2014, no field may have an annual PI of 12 or more. It is a goal of this project to decrease the annual PI of the fields and to decrease the weighted average PI of the fields over the rotation.

- 2) Winter land spreading of liquid manure, digester nutrients, or solid manure is prohibited on frozen or snow-covered ground. Storage/stacking options shall be consistent with NRCS 590 and NRCS 313, or a participant's WPDES Permit.
- 3) Project Performance Reporting - The facility, shall convene a meeting on an annual basis, to evaluate project performance, with all project participants including the Department and Dane County. Among the topics to be covered at this meeting is a report (January 1 - for the previous crop year) regarding land application of digester nutrients and solid manure from all participating and emergency use farms. Reporting requirements will include annual spreading reports and updated Nutrient Management Plans (including SNAP + files). Additional information may be shared by attendees, of any applicable surface water sampling results, and other data/documents to assess project benefits along with permit compliance and reductions in Phosphorus loadings.
- 4) New non-emergency participants shall meet all of the above requirements.

- 5) Farms needing to transfer manure into the digester under emergency conditions may be required to take back an equivalent amount of digested manure. These farms will be required to have a current NRCS 590 Nutrient Management Plan and adhere to the provisions in the emergency plan which will be submitted for Department and Dane County approval prior to permit issuance.

In order to balance nutrients in the project area and to draw down phosphorus in area fields, a plan to address the application of digester nutrients and solid manure on fields outside of the participant's farms or for addressing manure brought in to the participating farms fields will be submitted and approved by the Department and Dane County, prior to permit issuance.

6 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Annual Reports -Submit Annual Report #1	January 31, 2019	20
Annual Reports -Submit Annual Report #2	January 31, 2020	20
Annual Reports -Submit Annual Report #3	January 31, 2021	20
Annual Reports -Submit Annual Report #4	January 31, 2022	20
Annual Reports -Ongoing Annual Reports	January 31, 2023	20
Operator Certification -Operator Certification	April 1, 2019	20
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	21

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 Region, 3911 Fish Hatchery Road, Fitchburg, WI 53711-5397