



# WPDES PERMIT

## *STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES*

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

In compliance with the provisions of Chapter 283, Wisconsin Statutes, any facility engaged in

### **LAND APPLICATION OF LIQUID INDUSTRIAL WASTES**

and meeting the applicability criteria listed in this General Permit is permitted to land apply liquid industrial wastes

to approved spreading sites in Wisconsin

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

State of Wisconsin Department of Natural Resources  
For the Secretary

By *Susan Sylvester*  
Susan Sylvester  
Director, Bureau of Water Quality

6/29/12  
Date Permit Signed/Issued

**PERMIT TERM: EFFECTIVE DATE - July 01, 2012**

**EXPIRATION DATE - June 30, 2017**

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# 1 Applicability Criteria

## 1.1 Activities Covered

For this permit, “liquid wastes” are defined as process wastewater and waste liquid products, including, but not limited to: silage leachate, whey, whey processing by-products, milk, cooling water or boiler water containing water treatment additives, and wash water generated in industrial, commercial, aquacultural and agricultural operations which result in a point source discharge to a land spreading system, as defined in NR 214.03(26), Wis. Adm. Code. Coverage under this permit may only be granted for land application (spreading) of liquid wastes from a single industrial source. The wastes shall not have a detrimental effect on soils, vegetation or groundwater, and contain primarily organic material and crop nutrients.

Note: The Department will consider factors such as volume and quality of liquid wastes, land application sites, management plan documentation, and frequency of land application in making its determination on the applicability of this permit.

## 1.2 Activities Not Covered

This permit does not cover the land application of liquid wastes with any of the following characteristics:

- Liquid wastes that contain toxic or hazardous substances (such as metals, solvents, lubricants, biocides, pesticides, etc.), unless the permittee demonstrates to the Department that the land application of such substances will be in such small quantities that no environmental pollution will result and the groundwater standards established in ch. NR 140, Wis. Adm. Code will be met;
- Liquid wastes that contain substances which the Department determines do not meet the requirements of s. NR 214.17(4), Wis. Adm. Code, and, therefore, may cause an exceedance of the groundwater standards established in ch. NR 140, Wis. Adm. Code;
- Liquid wastes that are regulated under the provisions of ch. NR 518, Wis. Adm. Code.

**Coverage under this permit may not be granted to facilities that contract to haul and commingle or mix wastes from more than one industrial source prior to land application.**

# 2 Land Application Site Requirements

## 2.1 Department Approval for Land Application Sites

The permittee is authorized to land apply liquid wastes only on sites approved in writing by the Department in accordance with s. NR 214.17(2), Wis. Adm. Code. The Department may specify any site use restrictions in the written approval and the permittee shall comply with all specified restrictions. The permittee shall not spread liquid wastes on a site until Department site approval is received for that site. The Department may require that the permittee re-submit application site information for existing spreading sites to confirm that the spreading areas meet the criteria of part 2.2 of this permit. The permittee shall land apply on all approved sites in compliance with the requirements of this permit.

The permittee shall request approval for additional sites using Land Application Site Evaluation Form 3400-53 or equivalent. The following information shall be submitted to the Department for each site: location maps showing nearby residences and wells, soil maps, soil analysis results, information on separation to groundwater and bedrock,

and other information that demonstrates that liquid wastes application on the site will comply with applicable requirements of NR 214.17, Wis. Adm. Code, and the conditions of this permit.

## **2.2 Land Application Site Separation Distances and Slopes**

- The permittee shall not land apply liquid wastes closer than 500 feet from an inhabited dwelling, except this separation distance may be reduced to a distance of less than 500 feet but greater than 200 feet if the owners and occupants of the affected dwelling give written consent and the liquid wastes are incorporated into the soil.
- The permittee shall not land apply liquid wastes closer than 1000 feet from a well serving a community public water supply.
- The permittee shall not land apply liquid wastes closer than 250 feet from a potable water supply well that is not a community public water supply well.
- The permittee shall not land apply liquid wastes on sites located in floodways.
- The permittee shall not land apply liquid wastes on any site in a floodplain when the floodplain is flooded.
- The permittee shall not land apply liquid wastes closer than 200 feet from any surface water, except that the liquid wastes may be applied no closer than 100 feet from the surface water if there is a vegetative buffer strip at least 20 feet wide between the surface water and the nearest edge of land application,.
- The permittee shall not land apply liquid wastes at a location where the distance between the land surface and bedrock or the groundwater table is less than 36 inches. With written approval from the Department for a specific site, the permittee may, during April through September, apply on land with a minimum of 18 inches separation to bedrock or the groundwater table, provided the waste loading rate does not exceed the rate specified in subsection 4.1.3.
- The permittee shall not apply liquid wastes at any time on land that has a slope of greater than 12%.
- The permittee shall not land apply liquid wastes on land with a slope greater than 2%, when the ground is frozen or snow-covered. The Department may, on a case-by-case basis, by written approval allow a permittee to land apply liquid wastes on land with slopes between 2% and 6% when the ground is frozen or snow-covered.

## **3 Reporting Requirements**

### **3.1.1 Land Application Characteristic Report**

The analytical results from testing of liquid wastes that are land applied shall be reported annually on the Characteristic Form 3400-49. The report shall be submitted no later than January 31, following each year waste is land applied. The permittee may monitor more frequently than required for any parameter.

### **3.1.2 Land Application Report**

The annual total loading for the land application of liquid wastes to each spreading site shall be submitted on the Land Application Report Form 3400-55 by January 31, following each year waste is land applied.

## 4 Liquid Wastes Land Application Requirements

The discharge shall be limited to land application of liquid wastes to Department approved spreading sites. During periods of discharge, the permittee shall comply with the monitoring requirements, reporting requirements and limitations specified below.

<b>Monitoring Requirements and Effluent Limitations</b>					
<b>Parameter</b>	<b>Limit</b>	<b>Limit and Units</b>	<b>Sample Frequency</b>	<b>Sample Type</b>	<b>Notes</b>
Land application Rate	See 4.1.2	Gallons/day	Daily	Daily Record	
Solids, Total		Percent	Annual	Grab	
Chloride		mg/L	Monthly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Phosphorus		mg/L	Quarterly	Grab	

<b>Daily Log Requirements</b>				
All land application and monitoring activity shall be documented on log sheets. <b>Completed log sheets shall be kept in the application vehicle for a minimum of seven days following an application.</b> After the seven-day period, the original 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.				
<b>Parameters</b>	<b>Limit</b>	<b>Units</b>	<b>Sample Frequency</b>	<b>Sample Type</b>
DNR Site Number(s)	-	Number	Daily	Log
Number of Acres on the Site to Which Waste is Applied	-	Acres	Daily	Log
Application Rate	-	Gallons/Acre/Day	Daily	Calculated

<b>Annual Reporting Requirements and Limitations</b>				
By no latter than January 31 <sup>st</sup> of each year the permittee shall submit an Annual Report (Form 3400-55) providing the following information for the previous calendar year.				
<b>Parameters</b>	<b>Limit</b>	<b>Units</b>	<b>Reporting Frequency</b>	<b>Sample Type</b>
DNR Site Number(s)	-	Number	Annual	Record
Number of Acres on the Site to Which Waste is Applied	-	Acres	Annual	Record
Total Amount Per Site	-	Gallons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

### 4.1.1 Sampling

Representative samples of the liquid wastes that are land applied shall be collected from the vehicle used to haul the wastes, unless an alternate means of collecting the sample is approved in the Management Plan. The Management Plan shall specify how the samples will be collected. If the permittee land applies milk under this permit, the permittee may use typical parameter values of milk to characterize the quality of milk that is land applied in lieu of actually sampling the milk that is land applied.

### 4.1.2 Daily Application Rates

- If the ground is not frozen or snow covered, the permittee shall not land apply more than 13,500 gallons of liquid wastes per acre on any one day.
- If the ground is frozen or snow covered, the permittee shall not land apply more than 6,800 gallons of liquid wastes per acre on any one day.

### 4.1.3 Weekly Application Rates

The permittee shall not land apply liquid wastes at weekly rates that exceed the values in the following table for the applicable soil texture. Land application on soils with a depth to groundwater or bedrock of 18 to 36 inches is permitted only during the months of April through September.

Soil Texture	Maximum Weekly Volume to be Applied [gal/acre/week (inches/week)]	
	18-36" Depth to Groundwater or Bedrock	Greater than 36" Depth to Groundwater or Bedrock
Sand	6,750 (1/4)	13,500 (1/2)
Sandy Loam	13,500 (1/2)	27,000 (1)
Loam	13,500 (1/2)	27,000 (1)
Silt Loam	13,500 (1/2)	27,000 (1)
Clay Loam	13,500 (1/2)	20,000 (3/4)
Clay	6,750 (1/4)	13,500 (1/2)

### 4.1.4 Whey Application Rates

The permittee may land apply whey, not including whey by-products or salty whey, at the following annual rates without sampling and calculating the nitrogen and chloride content of the land applied waste, provided no other waste or fertilizer has been applied to the same site: 27,000 gallons per acre for the first year of application, 20,000 gallons per acre for the second year of application, and 13,500 gallons per acre for the third and subsequent years of application. Land application of whey on soils with a depth to groundwater or bedrock of 18 to 36 inches is permitted only during the months of April through September. Land application of whey shall comply with the maximum weekly application requirements shown in 4.1.3.

#### 4.1.5 Chloride Requirements for Liquid wastes

The total pounds of chloride applied shall be limited to 340 pounds per acre for any 2 consecutive years. Calculate the chloride loading as follows:

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

#### 4.1.6 Nitrogen Requirements for Liquid wastes

The total pounds of nitrogen that may be land applied per acre per year shall not exceed the nitrogen needs of the cover crop minus any other nitrogen added to the land application site, including that from fertilizer or manure. Nitrogen applied can be calculated on the basis of plant available nitrogen, as long as the release of nitrogen from the organic material is credited to future years. The Total Kjeldahl Nitrogen applied each year from all sources shall not exceed 165 pounds per acre per year on any site, except when alternate numerical nitrogen loading limits are approved in writing via the Department's land application management plan approval. Calculate nitrogen loading as follows:

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

## 5 MANAGEMENT PLAN

### 5.1 Operate Consistent With an Approved Management Plan

The permittee shall operate and maintain the liquid waste land application system to meet the conditions of this permit in accordance with a management plan approved by the Department as provided in NR 214.17(6), Wis. Adm. Code. A copy of the management plan shall be retained by the permittee and the plan shall be available for Department inspection. Whenever the permittee intends to make operational changes affecting the character, quality or quantity of the liquid wastes or procedures for handling or characterizing the liquid wastes, the management plan shall be amended and such amended plan shall be submitted to the Department for approval prior to implementing such changes.

### 5.2 Submittal of the Management Plan

If a management plan has not been approved by the Department prior to the reissuance of this permit, then the permittee shall submit a management plan to the Department for approval not more than 60 days after the date of reissuance of this permit or after the date that coverage under this permit was granted, whichever is later. When granting coverage under this permit, if the Department determines that a previously approved management plan must be amended to comply with NR 214.17(6), Wis. Adm. Code, the permittee shall submit an amended management plan not more than 60 days after the date that coverage under this permit was granted.

## 6 OPERATIONAL REQUIREMENTS

The permittee shall meet all the following requirements when land-applying liquid wastes:

- The liquid wastes shall be applied on approved sites to assure uniform distribution of the material and resting of the soil and to maintain the soil's absorptive capacity.

- The volume of liquid wastes applied on any portion of a site may not alter the characteristics or structure of the soil so as to cause excessive erosion or limit permeability of the soil on the site.
- There shall be no runoff of liquid wastes from the approved site. If runoff occurs, all land application shall cease immediately.
- Liquid wastes shall be plowed, disced, injected, or otherwise incorporated in the surface soil layer within the time period specified in the management plan. The management plan approval may specify that certain liquid wastes be incorporated into the soil as soon as possible to prevent nuisance conditions, such as attraction of animals, transmission of disease, or the release of objectionable odors from solids decomposition.
- Vehicles used for transporting or land applying the liquid wastes shall be maintained to prevent spillage or leakage.
- Vehicles used for land applying liquid wastes shall be equipped with a distribution system capable of applying the waste uniformly on the land surface.
- Vehicles land applying liquid wastes shall be moving forward at all times of application unless the vehicle is equipped with a high pressure spray nozzle that uniformly distributes the liquid wastes on the land surface.
- Liquid wastes may be discharged into liquid manure storage facilities in an amount that is less than or equal to 10% of the total volume of the mixture of liquid waste and manure at the time the liquid waste is discharged into the manure storage facility. At no time may the amount of liquid manure in a storage facility be less than 90%, by volume. This mixture is exempted from the requirements of s. NR 214.17 (2),(3),(4), and (7) if the liquid waste and manure mixture has beneficial properties as a soil conditioner or fertilizer, is applied in accordance with accepted agricultural practices, and does not cause detrimental effects. All liquid manure storage facilities receiving liquid wastes covered under this permit shall be approved by the Department prior to use and shall meet or exceed USDA NRCS Technical Bulletin Section IV design criteria 313 (12/05) or equivalent sealing specifications accepted by the Department. The permittee shall track the volume of all liquid wastes hauled to an approved manure storage facility.
- Liquid wastes containing viable pathogens, such as those from meat or poultry processing operations, may not be applied on sites used for growing crops that may be consumed raw by humans. In addition, facilities that land apply wastes from cattle or deer processing operations shall address in the management plans operational procedures, such as injection or immediate incorporation, which may reduce the risk of the spread of transmissible spongiform encephalopathy (TSE), such as BSE (Mad Cow Disease) and Chronic Wasting Disease.

## **7 Standard Requirements**

### **7.1 NR 205, Wisconsin Administrative Code**

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, except for s. NR 205.07(1)(n), which does not apply to facilities covered under general permits. Selected NR 205.07 requirements are listed below for convenience.

### **7.2 Spill Reporting for Hazardous Substances**

The permittee shall immediately notify the Department of an accidental release or spill of any hazardous substance to the environment as specified in ch. NR 706 and s. NR 205.07(3)b, Wis. Adm. Code. The Department shall be notified via the 24-hour toll free spills hotline (1-800-943-0003).

### **7.3 Duty to Halt or Reduce Activity**

Upon failure or impairment of treatment facility operation, the permittee shall, as required in s. NR 205.07(3)(e), Wis. Adm. Code and to the extent necessary to maintain compliance with its permit, curtail production or liquid wastes discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

### **7.4 Permit Noncompliance Reporting**

As specified in s. NR 205.07(1)(s), Department notification is required within 24 hours of becoming aware of permit noncompliance.

### **7.5 Bypassing**

As specified in s. NR 205.07(1)(u) & (v), Wis. Adm. Code, any bypass or overflow of discharges regulated by this permit around a settling, filtration or treatment system is prohibited unless there were no feasible alternatives to the bypass, the bypass is necessary to prevent severe injury or property damage, and the permittee notified the Department as required in s. NR 205 (1)(u)3, Wis. Adm. Code.

### **7.6 Planned Changes**

The permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased land applications of pollutants as set forth in s. NR 205.07(3)(c), Wis. Adm. Code.

### **7.7 Inspection and Entry**

The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter the permittee's premises, have access to records, and inspect and monitor the land application as described in s. NR 205.07(1)(d), Wis. Adm. Code.

### **7.8 Authorized Signature**

Reports, records, and monitoring results required by this permit shall be signed by the permittee's authorized representative or, in his or her absence, as specified in s. NR 205.07(1)(g), Wis. Adm. Code.

### **7.9 Water Quality Sampling and Testing Procedures**

Sampling and laboratory testing procedures shall be performed as specified in s. NR 205.07(1)(p), Wis. Adm. Code and as set forth below. Sampling and analysis of effluent samples shall be performed as specified in chapters NR 218 and NR 219, Wis. Adm. Code, respectively and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code.

### **7.10 Retention and Submittal of Reports, Records, and Monitoring Results**

The permittee shall retain records of all monitoring required by this permit and report monitoring results as set forth in s. NR 205.07(1)(f) and (r), Wis. Adm. Code. Reports (including storm water inspection reports), records, and monitoring results required by this permit shall be retained by the permittee for the duration of this permit or three years after this information is generated, whichever is longer.

### **7.11 Recording of Results**

For each effluent measurement or sample taken, the permittee shall record the following information as required in s. NR 205.07(1)(e), Wis. Adm. Code:

- The date, exact place, method and time of sampling or measurements,

- The individual who performed the sampling or measurements,
- The date of the analysis and the individual who performed the analysis,
- The analytical techniques or methods used, and the results of the analysis.

### 7.12 More Frequent Monitoring

If the permittee monitors any parameter more frequently than required by the permit, using test procedures specified in ch. NR 204 or 219, Wis. Adm. Code, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report.

### 7.13 Continuation of an Expired General Permit

As provided in s. NR 205.08(9), Wis. Adm. Code, the terms and conditions of this general permit shall continue to apply until this general permit is reissued or revoked or until an individual permit is issued for the land application to which the general permit applied. The status of expired general permits and forms for requesting continued permit coverage can be accessed at <http://dnr.wi.gov/org/water/wm/ww/gpindex/gpinfo.htm>.

### 7.14 Severability

The provisions of this permit are severable, and if any provisions of this permit or the application of any provision of this permit to any circumstance is held invalid, the remainder of this permit shall not be affected thereby.

## 8 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Characteristic Form 3400-49	January 31, following each year waste is land applied	2
Land Application Report Form 3400-55	January 31, following each year waste is land applied	2

Report forms shall be submitted to the address printed on the report form. Any facility plans or plans and specifications for industrial pretreatment or industrial wastewater systems shall be submitted to the Bureau of Watershed Management, 101 South Webster Street, P.O. Box 7921, Madison, WI 53707-7921.

*Note: More frequent reporting than annually is expected to be specified when current discharge data is needed or to account for increasing use of advances in information technology (wastewater database capability to generate paper Discharge Monitoring Report Forms for individual facilities covered by General WPDES permits or future anticipated capability for reporting data electronically via the internet using the eDMR system).*