

## Permit Fact Sheet

Permit Number:	WI-0055867-07-1
Permit Name:	Landspreading of Industrial Liquid Wastes General Permit, formerly named "Liquid Application of Industrial Liquid Wastes General Permit"
Discharge Location:	State wide
Receiving Water:	Groundwaters of the state via landspreading on department approved landspreading sites

No significant changes are proposed to the Discharge of Industrial Liquid Wastes in a landspreading Program General Permit (WI-0055867-07-1). Any changes to the previous permit language are to clarify requirements in chs. NR 140, NR 205, NR 213, and NR 214 Wis. Adm. Code. Changes to the format of the permit and fact sheet were made to be consistent with standard language in other Wisconsin Pollution Discharge Elimination System (WPDES) permits. Changes to the permit include:

- Adding Water Extractable Phosphorus to the Liquid Waste Landspreading monitoring requirements.
- Changed the monitoring frequency of Total Solids from annual to quarterly so compliance with application rates can be more accurately determined.
- The permit was previously named "Liquid Application of Industrial Liquid Wastes General Permit"; the name was changed to match wording in Wis. Adm. Code.
- Several requirements were previously referenced by code, but were not explicitly stated in the permit, these requirements are now explicitly explained in the permit to more clearly explain the requirements of the permit.
- The due date of the Characteristics Report (Form 3400-049) has been changed from annually by January 31<sup>st</sup> to 21 days after end of the reporting period whether or not waste is land applied. The change of the due date is to provide better compliance and follow-up for general permittees.

### GENERAL PERMIT COVERAGE

General Permits (GP) are designed to cover discharges from a class of facilities or industries that are similar in nature. When a GP is issued or reissued, all facilities meeting its requirements must apply for coverage under the GP. GP's currently exist for groundwater remediation, nonmetallic mining operations, swimming pools and numerous other types of facilities. For facilities that are eligible for coverage under a GP, the department sends a cover letter and a copy of the permit to the facility.

### MORE THAN ONE GP CAN APPLY

A facility may need to be covered under more than one GP, depending on the different types of waste streams that a facility may discharge. For example, if a farmer stores and landspreads silage and the stored silage generates leachate; the landspreading of the silage would need to be covered under the landspreading of By-Product Solids GP and the landspreading of the separated silage leachate would need to be covered under the landspreading of Industrial Liquid Wastes GP. However, if the silage is combined with the leachate prior to landspreading to the environment, then the landspreading discharge may be covered under the landspreading of By-Product Solids GP alone.

A facility that requires an individual permit for any section of its discharge (because the operation has activities not covered under Section 1.1 of the GP), normally would have all of the facility pollutant discharges addressed in the individual permit. The only exception would be for a facility that commences

a discharge that is eligible for a GP after an individual permit has already been issued or reissued for the facility. For example, a facility that currently has an individual permit may begin a process that results in the discharge of noncontact cooling water. The noncontact cooling water discharge can be covered under a GP, as long as it meets the requirements of the GP, until the individual permit can be reissued or modified to include the noncontact cooling water discharge.

## **1 General Description of Operations Covered Under This GP**

### **(A) Background and Rationale**

Chapter 283, Wis. Stats authorizes the department to issue a general permit for discharges from specified categories or classes of point sources if they are not a significant contributor of pollution. The GP coverage can be withdrawn if the point source is not in compliance with the terms and conditions of the GP. The Department also may withdraw a discharge from the coverage of a GP and issue an individual WPDES permit on its own motion, or upon the petition of any general permittee, affected state, or 5 or more persons affected by the disposal practices of a general permittee.

This GP will require that the permittee submit a Landspreading Management Plan containing pertinent information about the industrial or commercial process that generates the wastewater, the wastewater storage and transportation system, and the landspreading sites. It will also require a tracking of the volume land applied and representative sampling and analyses for pollutants that are expected to be present in significant quantities.

If a Management Plan has not been approved by the department prior to the reissuance of this permit, the permittee must submit a Management Plan to the department for approval not more than 60 days from the date of reissuance of this permit or from 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, the department will require the permittee to submit an amended Management Plan not more than 60 days from the date that coverage under this permit was granted. This time period provides dischargers sufficient time to gather samples, have them analyzed, and calculate which substance is the critical limiting pollutant.

### **(B) APPLICABILITY CRITERIA**

#### **1. Groundwater Standards**

The discharges from facilities eligible for this GP are not expected to exceed any groundwater standards. Facilities with discharges that have a reasonable potential (as specified in ch. NR 106, Wis. Adm. Code) to violate surface water quality standards or ch. NR 140, Wis. Adm. Code, groundwater quality standards would normally require the increased oversight, monitoring and water quality limitations found in a site-specific individual permit. If a permittee would propose a new or significantly increased pollutant discharge, evaluation of the proposed increase would begin via notification to the department in a new request for GP coverage or via notification of a planned change under standard requirements of the permit. Upon notification of the proposed new or increased discharge, the department would evaluate the proposed new or increased pollutant discharge amount

#### **2. Activities Covered**

This permit is applicable to industrial liquid wastes that are discharged indirectly to groundwaters via landspreading. The permit contains very general applicability criteria to allow coverage of innocuous discharges.

This GP will be reissued for long-term discharge of small volumes of wastewater and for short term discharges of larger volumes of whey, whey by-products, milk contaminated with antibiotics, and other

wastewater. This GP will also be used by the department to react to urgent requests to land apply wastewater due to unexpected problems, such as an upset of a wastewater treatment plant.

This GP will be issued for:

1. Routine landspreading of small volumes of wastewater;
2. Short term discharges of larger volumes of whey, whey by-products, milk, milk contaminated with antibiotics that cannot be processed, and other wastewater;
3. Cooling water or boiler water containing water treatment additives, and wash water generated in industrial processes;
4. Food byproduct leachate from storage sites; and
5. Industrial or commercial wastewater that is biodegradable.
6. This GP will also be used by the department to react to urgent requests to land apply wastewater due to unexpected problems, such as an upset of a wastewater treatment plant.

The following situations are examples of use of the GP to regulate landspreading activities:

a) Routine landspreading of small volumes of process wastewater

Wastewater discharges that pose little potential for environmental harm can be adequately regulated without issuing an individual permit. The GP has no specific limit on volume but the department intends that coverage be limited to volumes of approximately 10,000 gallons per day.

b) Occasional landspreading of whey and whey by-products

Some dairy product processors have whey processing equipment but, due to market conditions or equipment failure, they wish to land apply excess whey or whey by-products on an irregular basis. If this discharge becomes part of a regular Management Plan and over 10,000 gallons per day, the discharge will be regulated by a individual permit through a permit reissuance or modification. Additionally, on occasion dairy processors detect antibiotics in milk received from farmers. This milk cannot be processed. This GP may be used for landspreading of this milk.

c) Unexpected or urgent needs to land apply high strength wastewater

On occasion wastewater generators request a permit to land apply high strength process wastewater or other wastewater streams. This is generally done to reduce overloading of their wastewater treatment plant or a publicly owned treatment works (POTW). It takes at least 90 days to issue an individual permit. In this situation the GP would be used to regulate the landspreading program. If it is anticipated that the discharge will continue long term (normally greater than one year), it will be necessary for the generator to obtain an individual permit to replace coverage under this GP.

d) Sweet corn silage leachate

Sweet corn silage leachate can be regulated by the GP. However, if the generator already has a WPDES permit for other discharges, all discharges should be regulated in the specific permit. The GP can also be used to regulate other food byproduct leachate from storage sites.

e) Other types of wastewater

The GP will be used to regulate industrial or commercial wastewater that is biodegradable. It will not be used to dispose of nonbiodegradable pollutants, except for ions like chloride that can be limited to the rate necessary to comply with NR 140 groundwater standards. It is important for the permittee to complete a thorough wastewater analysis and calculate the per acre loading rate for each pollutant.

NOTE: Not all wastewater discharges from these operations are authorized by this GP. An individual WPDES permit may be necessary for any given operation where it is deemed necessary by the

department, such as a discharge from a facility that contains toxic pollutants that are not limited or monitored by this permit.

### 3. Activities Not Covered

#### a) Discharges containing pollutants

Liquid wastes 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.

Interim GP coverage can be used in situations where the department agrees that landspreading high concentration wastewaters must be done immediately to alleviate a more severe pollution problem. Wastes regulated by the GP must be exempt from NR 518, Landspreading of Solid Waste. NR 518 specifically exempts whey and has a general exemption for waste applied as a soil conditioner or fertilizer.

#### b) Transfer to a Public-Owned Treatment Works (POTW), landfill, incinerator or contract hauler

Wastewater transferred to a POTW, landfill, incinerator or contract hauler are not covered under this GP. Rather, this GP applies only to indirectly to groundwaters via landspreading.

#### c) Sludge

Discharge of sludge as specified in s. NR 214.03(34), Wis. Adm. Code;

#### d) By-product solids

Discharge of by-product solids as specified in s. NR 214.03(4), Wis. Adm. Code;

#### e) Containing toxic or hazardous substances

Toxics such as biocides and hazardous substances require regulation by an individual permit. Facilities discharging wastewater treated with biocides other than chlorine will be in violation of this GP and ss. NR 214.04, Wis. Adm. Code.

Discharges of hazardous substances that are required to be reported under ch. NR 706, Wis. Adm. Code are not authorized by this permit. Exemptions for discharge of these substances require an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect receiving waters. Section 292.11(2)(a), Wis. Stats., requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the department **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 the department's 24-hour HOTLINE at 1-800-943-0003.**

#### f) Wetlands

Landspreading sites may not be located in wetlands as defined in s. 23.32 (1), Stats., or in a floodway as defined in ch. NR 116, Wis. Adm. Code.

#### g) Surface waters

This permit does not cover discharges to surface water.

Note: Discharges to outstanding and exceptional resource waters in ch. NR 102, Wis. Adm. Code requires an individual permit which provides the oversight, monitoring and discharge limitations necessary to protect these types of receiving waters. The permittee can use the surface water data viewer (<http://dnrmaps.wi.gov/sl/?Viewer=SWDV>) to identify the outstanding and exceptional resource waters in the county that the discharge will occur.

#### h) Endangered and Threatened Resources

Discharges that affect endangered and threatened resources are not eligible for this permit, unless the department determines that the discharges comply with the endangered and threatened resource protection requirements of s. 29.604, Wis. Stats., and ch. NR 27, Wis. Adm. Code. Facilities with discharges that require more oversight to ensure that they do not violate these protection requirements may need to be covered by an individual permit.

#### i) Discharges within Tribal Lands

The department lacks the authority to issue WPDES permits within Tribal Lands due to the state delegation agreement with U.S. EPA. In such instances, the Tribe or U.S. EPA regulates the discharge and would issue a discharge permit.

#### j) Contract Haulers servicing industrial customers

If a contract hauler wishes to land apply wastewater for a customer it must be done under an individual permit issued to the contract hauler or the permit (either specific or general) of the customer.

#### k) Discharges with nonbiodegradable pollutants

This GP may not be used to dispose of nonbiodegradable pollutants, except for ions like chloride that can be limited to the rate necessary to comply with NR 140 groundwater standards. It is important for the permittee do a thorough wastewater analysis and calculate the per acre loading rate for each pollutant.

#### l) Commingled Wastewater

Liquid that is commingled with dissimilar wastes from multiple industrial sources must be covered under an individual permit.

## **2 Landspreading Site Requirements**

### 1. Department Approval for Landspreading Sites

The permittee is authorized to landspread industrial 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 industrial liquid wastes on a site until approval is received from the department for the site.

The permittee shall submit a land application site request package including the Land Application Site Evaluation Form (3400-053) or equivalent and field authorization form (from field owner).

The site request package may also include location maps showing nearby residences and wells, soil maps, information on separation to groundwater and bedrock, and other information that demonstrates that landspreading on the site will comply with all applicable requirements of s. NR 214.17, Wis. Adm. Code and the conditions of the GP.

### 2. Landspreading Site Separation Distances and Slopes

1. All landspreading sites shall be approved by the department prior to waste spreading.
2. Landspreading sites shall be located at least 500 feet from the nearest inhabited dwelling, except that this distance may be reduced to 200 feet if the waste is incorporated with the soil and any affected owners and occupants give their written consent for the reduced separation distance. The department may require a greater separation distance depending on the type of waste material and potential for aesthetic and public health impacts.
3. Wastes may not be landspread closer than 1,000 feet from a well serving a community public water supply system and 250 feet from other potable water supply wells.

4. Landspreading sites may not be located in the floodway as specified in ch. NR 116. Any site located in the floodplain shall conform to ch. NR 116 and may not be used when the floodplain is flooded.
5. Wastes may not be landspread closer than 200 feet from any surface water, except that the minimum separation distance may be reduced, to a minimum of 100 feet, when a vegetative buffer strip is maintained between the site and the surface water. If the waste is incorporated with the soil, the separation distance from any surface water may be reduced to 50 feet.
6. Landspreading sites shall have at least 36 inches of separation between the ground surface and bedrock or groundwater. However, the department may allow a reduced separation distance to a minimum of 18 inches on a case-by-case basis provided the rate of waste application is reduced.
7. Landspreading sites shall be limited to a slope of 12% or less when the soil temperatures are above freezing. When the ground is frozen or snow covered, landspreading shall be restricted to sites with slopes of 2% or less. Sites with slopes of 2-6% may be approved for winter time spreading on a case-by-case basis.
8. Landspreading sites shall be limited to cultivated cropland, tree plantations, pasture or hayland. Other sites may be reviewed and approved on a case-by-case basis.

### 3 Reporting Requirements

- (A) The analytical results from testing of liquid wastes that are land applied shall be reported by the date indicated on the Characteristic Report Form 3400-49. The report form shall be submitted electronically and is due 21 days after end of the reporting period whether or not waste is land applied in accordance with s. NR 214.17(5)(c), Wis. Adm. Code. For instance, if a parameter is to be sampled quarterly, the monitoring results are due 21 days following the end of each quarter. The permittee may monitor more frequently than required for any parameter.
- (B) 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.
- (C) The permittee may electronically submit the Other Methods of Disposal or Distribution Report Form 3400-52 by January 31, each year whether or not waste is hauled to another facility, landfilled, or incinerated. Following submittal of the electronic Other Methods of Disposal or Distribution Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive or municipal officer, manager, partner or proprietor in accordance with s. NR 205.07(1)(g), Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate, and complete.

**Note:** Form 3400-52 is not a requirement and is completely voluntary. However, the department recommends that permittees fill this form out when wastes are hauled to another facility, landfilled, or incinerated

### 4 Liquid Wastes Landspreading Requirements

The discharge shall be limited to landspreading 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 in Section 4 of the permit in accordance with NR. 214.17 Wis. Adm. Code.

#### (A) Sampling location

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.

(B) Daily Application Rates

The maximum daily volume of liquid waste applied shall be limited to 13,500 gallons per acre per day (1/2 inch) except that when the ground is frozen or snow covered it shall be limited to 6,800 gallons per acre per day (1/4 inch). In accordance with NR 214.17(4)(d)5. Wis. Adm. Code.

(C) Weekly Application Rates

The permittee shall not land apply liquid wastes at weekly rates that exceed the Weekly Application Rates for the applicable soil texture in Section 4.3 of the permit, in accordance with Table 3 in NR. 214.17 Wis. Adm. Code. Landspreading on soils with a depth to groundwater or bedrock of 18 to 36 inches is permitted only during the months of April through September.

(D) 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: 27,150 gallons per acre (1 inch) the first year, 20,360 gallons per acre (3/4 inch) the second year, and 13,600 gallons per acre (1/2 inch) the third and succeeding years in accordance with NR 214.17(4)(d)10. Wis. Adm. Code. Landspreading of whey shall comply with the maximum weekly application requirements shown in Section 4.3 of the permit.

(E) Chloride Requirements for Liquid wastes

The total pounds of chloride applied shall be limited to 340 pounds per acre for any 2 consecutive years in accordance with NR 214.17(4)(d)7. Wis. Adm. Code.

(F) Nitrogen Requirements for Liquid wastes

The total pounds of nitrogen applied per acre per year shall be limited to the nitrogen needs of the cover crop minus any other nitrogen, including fertilizer or manure, added to the landspreading site. 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 in accordance with NR 214.17(4)(d)10. Wis. Adm. Code. 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 landspreading Management Plan approval.

(G) Limits on the Application of Wastewater

The GP has limits on the per acre loading rates for volume, total annual nitrogen, and total annual chloride which are taken directly from NR 214.17. For any particular type of wastewater, one of these will likely be the most restrictive. For example, for a low strength process wastewater the daily and weekly volume limits will probably be most restrictive. For whey permeate and sweet corn silage leachate the annual nitrogen loading will be most restrictive. For dairy wastewater that has higher salt concentrations, the annual chloride limits will likely be the most restrictive. In the Management Plan the permittee shall analyze their wastewater and landspreading sites and make a self determination of the limiting parameter and that limit.

## 5 Landspreading Management Plan

### (H) Operate Consistent With an Approved Management Plan

The permittee shall operate and maintain the liquid waste landspreading 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.

### (I) Submitting a Management Plan

The GP can be used in situations where the industrial wastewater point source is not a significant contributor of pollution. To be covered by this permit a land applier must submit to the department a landspreading Management Plan. 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.

### (J) Management Plan Content

Landspreading Management Plan shall specify information on pretreatment processes, site identification on plat and soil maps, aerial photographs, if available, description of all site limitations, vegetative cover management and removal, availability of storage, type of transporting and spreading vehicle, load and rest schedules, monitoring procedures, contingency plans for periods of adverse weather or odor or nuisance abatement and any other pertinent information in accordance with s. NR 214.17(6)(c), Wis. Adm. Code.

**The department has attached an industrial wastewater landspreading Management Plan outline to assist the permittee to develop the Management Plan.**

## 6 Operational and Storage Requirements

1. Liquid wastes containing viable pathogens, such as those from meat or poultry processing operations, may not be applied on fields used for growing crops that may be consumed raw by humans. In accordance with NR 214.17(4)(c) Wis. Adm. Code.
2. The volume of liquid waste landspread may not alter the characteristics or structure of the soil such that the crop is adversely affected or erosion or permeability problems occur. In accordance with NR 214.17(4)(d)1. Wis. Adm. Code.
3. The volume of liquid waste landspread shall be limited to prevent ponding, except for temporary conditions following rainfall events. If ponding occurs, all spreading shall cease immediately. In accordance with NR 214.17(4)(d)2. Wis. Adm. Code.
4. The volume of liquid waste landspread shall be limited to prevent runoff and control odor. If runoff occurs, all spreading shall cease immediately. In accordance with NR 214.17(4)(d)4. Wis. Adm. Code.
5. 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 in accordance with NR 214.17(3)(a) Wis. Adm. Code. Vehicles used for landspreading shall be equipped with a distribution system capable of spreading the waste evenly over the site, in accordance with NR 214.17(3)(a) Wis. Adm. Code.
6. Vehicles used for transporting or land applying the liquid wastes shall be maintained to prevent spillage or leakage. In accordance with NR 214.17(6)(a) Wis. Adm. Code.
7. Any system used for the storage or stacking of wastes prior to landspreading shall be designed and constructed in accordance with ch. NR 213, or other design criteria as approved in the landspreading



Management Plan. Plans and specifications shall be submitted to the department for approval of such storage or stacking systems in accordance with NR 214.17(3)(c). Wis. Adm. Code.

8. Storage or stacking systems shall be sited and operated to minimize odors or other public nuisance conditions in accordance with NR 214.17(3)(d). Wis. Adm. Code.
9. 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. In accordance with NR 214.17(1) Wis. Adm. Code.

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## INDUSTRIAL WASTEWATER LANDSPREADING MANAGEMENT PLAN OUTLINE

Chapter NR 214, Wis. Adm. Code requires any industrial, commercial, or agricultural operation which engages in landspreading to develop a Management Plan. The code requires that each landspreading program owner or operator submit a Management Plan for optimizing system performance and demonstrating compliance with the requirements of the chapter. Following approval by the department, the system must be operated in conformance with the Management Plan. If the facility wishes to operate differently than specified in the approved plan, a written request must be submitted to the department for approval to amend the Management Plan. The plan must specify information on: wastewater volumes, characteristics, and origin; description of all site locations; availability of storage; type of transportation and landspreading vehicles; contingency plans for periods of adverse weather; and any other pertinent information. The Management Plan must be modified for each change in wastewater type or characteristics.

Since industrial wastewater can be generated by a very wide and diverse range of industrial and commercial activities, an outline for a suggested Management Plan is provided below. This document is intended solely as guidance and does not contain any mandatory requirements, except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the department of Natural Resources. Any regulatory decisions made by the department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts. Each item on the outline shall be adequately discussed in the plan. If an item is omitted, the owner/operator shall have an explanation as to why the requested information is not relevant.

### A. Wastewater Source and Handling

1. Describe the industrial or commercial processes that generate the wastewater. List the raw materials used and the products produced.
2. Specify type of wastewater treatment processes prior to landspreading. These may be processes such as screening; settling; aerated storage tank or pH adjustment. List any chemicals used in the wastewater treatment processes.

### B. Wastewater Characteristics

1. A representative sample of wastewater shall be analyzed for Kjeldahl nitrogen, ammonia-nitrogen, BOD<sub>5</sub>, chlorides, phosphorus, and potassium.
2. If the industrial processes or treatment process use any raw materials or chemicals containing significant quantities of other elements or compounds such as metals, oil and grease, hydrocarbons, or additives, it is the permittee's responsibility to analyze for their parameters.
3. Report the quantity of wastewater to be applied on a daily, monthly, or annual basis.

### C. Wastewater Storage and Transportation

1. The type of wastewater storage and/or treatment vessels must be described. This will include size, shape, volume, and materials of construction. For earthen lagoons, the liner or sealing soils shall be specified and the depth to groundwater and bedrock determined. For buried tanks, also specify the depth to groundwater and bedrock and the type of vent, manhole, and high level alarm provided.
2. If liquid manure storage structures are used to store a mixture of manure and wastewater, provide information on the volume of the structure, the volume of wastewater to be discharged, evidence

to show that the structure meets or exceeds USDA NRCS Technical Bulletin Section IV Design Criteria

1. 313 (12/05), or equivalent sealing specifications and identify who will be responsible to land apply the manure wastewater mixture.
2. Describe the method of pumping the wastewater to the hauling vehicle and the type and capacity of the hauling vehicle.
3. Explain if the application vehicle will be unloaded with a high pressure spraying gun, spreader bar, splash pad, or some other device.
4. State how the total volume hauled will be measured and what kind of records will be kept.
5. Explain where the wastewater samples will be collected to obtain a representative sample.
6. Discuss what contingency plans have been developed in case of inclement weather.

#### D. Wastewater Landspreading Site Information

1. Show the location of each application site indicated on a site map such as a USDA soil survey map, the description of each soil type and slope, and estimated depth to groundwater and bedrock must be included.
2. Provide an USGS topographic map or an aerial photograph with the proposed site outlined. Aerial photographs are generally available from the county Farm Services Agency (FSA) office.
3. Each site map shall clearly show by cross hatching lines, or some other means, exactly which areas have suitable conditions and are proposed for landspreading.
4. Describe the crops to be grown or the dominant vegetation on the landspreading site and the anticipated harvest and removal schedule.
5. Describe adjacent land use, drainage, and land features associated with the site. Show the distance to wells and streams.
6. Explain the ownership of the site, and the site number used for identification by the hauler.
7. Attach a copy of any land use agreement.
8. Estimate the total acreage to which the wastewater will be applied.

#### E. Site Loading and Application Information

1. Describe how the wastes will be applied. For meat processing wastewater, this should include an explanation on any special considerations, such as injection or immediate incorporation, to reduce the risk of spreading TSE.
2. Describe any special restrictions on cropping practices to reflect the type of wastes.
3. Specify the total volume of wastewater that can be applied to reach the nitrogen needs of the crop.  
The nitrogen loading will generally be limited to 165 pounds per year in the GP. Increased nitrogen loadings may be allowed if specified in a Management Plan that has been approved by the department or in a specific WPDES permit based on crop needs and available nitrogen.
4. Calculate the chloride loading rate and demonstrate that it will not exceed 340 pounds per acre per two year period.
5. Calculate the per acre loading rate of phosphorous.
6. Specify how the application will be tracked to ensure uniform distribution across the site. This shall include a discussion on the use of methods such as staking of the site or use of a Global Positioning System (GPS) to locate areas of previous application.