

PERMIT FACT SHEET

General Information

WPDES Permit Number	WI-0063274-01 General Permit
Activity	Large Dairy Concentrated Animal Feeding Operations
Permittee	Animal feeding operation with 1000 to 5720 Animal Units
Discharge Location	Statewide
Receiving Water	Groundwaters and surface waters of the State of Wisconsin

Background and Rationale

The Wisconsin Department of Natural Resources (the Department) has developed General Wisconsin Pollutant Discharge Elimination System (WPDES) Permits that are designed to cover discharges from a class of facilities or industries whose wastewater discharges are similar in character. When a General Permit (GP) is issued, many facilities meeting its requirements may be covered under the same general permit. GPs currently exist for noncontact cooling water, groundwater remediations, non-metallic mining operations, landspreading of food processing wastewaters and fourteen other types of industrial operations.

General Description of Operations Covered

Livestock operations in the state of Wisconsin that have at least 1,000 animal units (e.g., the equivalent of 700 milking cows, 1000 beef cattle, or 2500 swine 55 lbs. or greater), are considered large Concentrated Animal Feeding Operations (CAFO) under ch. NR 243, Wis. Adm. Code (NR 243). NR 243 outlines the water quality protection requirements that apply to large CAFOs. Under state and federal law, livestock operations of this size are considered “point sources” with regard to water quality protection and are required to obtain a WPDES permit. The Department began covering large CAFOs under WPDES permits in 1985 with the passage of NR 243. Beginning in 1999 and 2000, the Department saw significant growth in the number of large CAFOs in the state. The Department expects to continue to receive between 15 to 25 applications a year for newly permitted large CAFOs. As of April 2011, there are approximately 216 large CAFOs in Wisconsin, most of which are dairy operations.

The Department has historically issued individual WPDES permits to all of these operations. To provide a streamlined mechanism to regulate these operations and allow for increased compliance and enforcement efforts, the Department has issued a WPDES GP for Large Dairy Concentrated Animal Feeding Operations (“Large Dairy CAFO GP”). Only large dairy operations that meet certain size restrictions are eligible for coverage under the Large Dairy CAFO GP (see Applicability Criteria). It is expected that streamlining the permit issuance process will save staff time that can then be spent conducting site visits and compliance efforts at permitted CAFOs. The revisions to NR 243, Wis. Adm. Code, the Department’s rule outlining CAFO requirements, facilitated the issuance of a Large Dairy CAFO GP by (1) outlining the GP application process for livestock operations and (2) creating more standardized and protective permit requirements that lend themselves to inclusion in a GP.

The permit application process for coverage under the Large Dairy CAFO GP is essentially the same as the process for operations applying for an individual large CAFO permit. The application materials and level of Department review are the same for a CAFO covered under an individual or general permit. The key difference is that the Environmental Review process under ch. NR 150 has already been completed as part of the issuance process for the Large Dairy CAFO GP and will not need to be completed each time a CAFO is covered under the Large Dairy CAFO GP. More information on how the Department proposes to cover operations under the GP are contained in the “Granting of Coverage” section below.

Given the standardized CAFO requirements outlined in ch. NR 243, WPDES permit requirements for individual CAFO permits are very similar from permit to permit. If individual permits were issued to operations that would be covered under the Large Dairy CAFO GP, the key differences from permit to permit would relate to

identification of individual manure storage structures and runoff control systems at the operation. Language in the proposed Large Dairy CAFO GP will allow these structures and systems to be identified in the cover letter authorizing coverage under the GP.

Permit Requirements

1 Applicability Criteria

The Department is limiting the use of the Large Dairy CAFO GP to dairy CAFOs with 1,000 to 5,720 animal units (AU) that have a good compliance record in protecting water quality. The GP can be used for (1) brand new or expanding dairy operations that are for the first time reaching or exceeding the 1000 AU threshold, but are not planning to expand beyond 5,720 AUs, (2) currently permitted dairy operations that have 5,720 animal units or less and (3) currently permitted dairy operations that are looking to expand but will stay at or below 5,720 animal units. Below is a table indicating the number of mature or immature animals that would typically be covered by the Large Dairy CAFO GP based on the animal units ranges provided for in the permit. The table indicates the number of head were there only to be an individual animal type present at the operation.

Wisconsin livestock operations often have a number of different animal types present at a given operation so the actual total number of head will vary from operation to operation. Operations must have at least 80% of its animals fall under the dairy animal type (in terms of animal units) in order to be deemed a dairy for eligibility purposes under this GP. This is intended to avoid questions about whether a mixed animal type operation is eligible for the Large Dairy CAFO GP.

Animal Type	# Head equal to 1,000 AU (minimum # of animals needed for permit coverage)	# Head equal to Maximum allowable 5720 AU
Milking and Dry Cows	700	4,000
Heifers	1,000	5720
Dairy Calves	5,000	28,600

Operations that are covered under the GP that wish to expand beyond the allowable number of animal units identified in the GP for issuances or reissuances, respectively, must apply for and obtain an individual permit prior to expanding beyond 5720 animal unit.

2 Granting of Coverage

The Large Dairy CAFO GP has gone through the public comment process. Unlike an individual CAFO WPDES permit which is public noticed in the area where the operation will be located, the Department noticed the Large Dairy CAFO GP on a statewide basis and held public hearings on the permit throughout the state. During the public comment period the Department received over 150 comments on the Large Dairy CAFO GP and associated Environmental Assessment. The Department completed a Notice of Final Determination and summarized comments and changes made to the permit as a result of public comment.

When a GP is issued, the Department can begin conveying coverage under the GP to operations applying for a permit. While it is expected that most large dairy CAFOs with 5720 or fewer Animal Units will be covered under the GP, ultimately, coverage under the Large Dairy CAFO GP is dependent on the Department's determination that the GP is appropriate for a given operation based on the information submitted as part of the permit application package.

The process for granting coverage is similar to the CAFO individual permit process. The process outlined below is a basic explanation of how the Department expects the GP permit coverage process to work. There may be changes made to this process on a case-by-case basis or based on changes to how the GP program is implemented. An operation must submit a complete permit application in accordance with s. NR 243.12 which consists of a basic application form, a complete nutrient management plan (NMP), engineering evaluations of existing structures (if they exist at the site) and plans and specifications for any proposed structures that are subject to Department review under NR 243. If the application does not contain any of these required components, the applicant will typically be given a short timeframe to submit the missing components. Failure to submit necessary information in the specified timeframe will result in the entire application being returned to the applicant. The applicant will then need to resubmit an application with all necessary information at a later date if they wish the Department to reconsider their application.

For operations that have submitted all the necessary components of the application, the Department will typically inform the applicant via e-mail that it has made an initial determination of whether or not the operation meets the basic eligibility criteria (e.g., correct animal type and size of operation). The Department will then begin review of the components of the permit application to determine if the components are complete and comply with the requirements of ch. NR 243. This is of particular importance for the nutrient management plan, plans and specifications for proposed structures and evaluations of existing structures. If review of these individual components is deemed incomplete, the Department will again provide the applicant a short period of time to submit necessary information. Failure to submit necessary information in the specified timeframe will result in the entire application being returned to the applicant.

If the operation's WPDES permit application is complete and complies with NR 243, the Department will complete its reviews and issue the necessary approvals for plans and specifications for proposed structures and for the NMP to the permittee. If the permittee must build additional manure storage as allowed under NR 243 to comply with the 180-day storage requirement for liquid manure or if existing structures need to be upgraded to ensure compliance with permit requirements, the Department will include a construction schedule as a condition of its approval of the NMP. Construction schedules do not delay compliance requirements with discharge limitations under the WPDES permit. The Department will then public notice its proposed decision to cover the operation under the Large Dairy CAFO GP along with the availability of the operation's NMP and any associated construction schedules in accordance with subchapters I and II of ch. NR 203, Wis. Adm. Code. Members of the public and the applicant will have the opportunity to comment and request a hearing on the Department's decision to cover the operation under a GP, the NMP and construction schedules. Upon completion of the public notice period and after responding to comments (and hearing comments if applicable), the Department may grant coverage via letter to the permittee under the Large Dairy CAFO GP.

The letter authorizing coverage will identify runoff control systems and manure storage facilities authorized to be used by the permittee under the GP. Once the Department has issued the letter granting coverage, the dairy can begin operating under the GP. Expansion to 1,000 animal units or more is not authorized until coverage under the Large Dairy CAFO GP is granted for operations that are not currently covered under a WPDES permit.

It should also be noted that certain changes to the NMP, such as addition of landspreading acreage, will require additional public notice.

3 Livestock Operational and Sampling Requirement

The following permit requirements have been included in the Large Dairy CAFO GP. These requirements are essentially the same requirements that would apply to any CAFO issued a WPDES permit.

3.1 - Production Area Discharge Limitations

For all operations covered under this GP, beginning on the effective date of permit coverage (i.e., the date of the Department letter granting coverage under the GP is sent to an individual operation), the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, manure stacking sites, outdoor animal lots, composting and leachate containment systems, milking center wastewater

treatment/containment systems, raw material storage areas) to navigable waters, with limited exceptions. Discharges of pollutants from the production area to navigable waters are only allowed if:

- A precipitation event causes an overflow of a containment/storage structure that was properly designed and operated to contain manure, process wastewater, and direct precipitation and contaminated runoff from a 25-year, 24-hour rainfall event (or greater) for the location of the operation; and
- State water quality standards are not be exceeded.

Additional restrictions are included for new operations and expanded operations if their discharge is to an Outstanding or Exception resource water (ERW/ORW).

Operations covered under the Large Dairy CAFO GP are prohibited from having production area discharges that contribute to the impairment of a 303(d) listed waterbody unless the discharge is allowed under an approved Total Maximum Daily Load (TMDL).

It should be noted that areas of the operation that do not have containment (e.g., they use vegetated treatment areas rather than containment) cannot have discharges to navigable waters under any storm event from that area.

Any allowed production area discharges may not cause exceedances of state water quality standards or groundwater standards or impair wetland functional values.

All structures shall be designed and operated to control manure and process wastewater for the purpose of complying with surface water and groundwater quality standards and preventing impairments to wetland functional values.

3.2 & 3.3 - Runoff Control

The permit requires control of contaminated runoff from all portions of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations section and to comply with surface water quality standards and groundwater standards and prevent impairments to wetland functional values. These runoff control structures or systems are referred to as one type of "Sampling Point" but since they are subject to the "no discharge" standard, sampling is not actually required. The purpose of identifying these areas as sampling points is to identify the runoff control systems authorized for coverage under the GP. The Department will identify and describe authorized runoff control systems and storage facilities in the cover letter granting coverage under this permit using a corresponding sample point number, followed by a letter suffix for each system (e.g., R001, R002, R003). The Department must authorize, in writing, construction and inclusion of any additional runoff control systems for coverage under this General Permit.

Operations covered under the GP may use non-permanent feed storage areas (e.g., silage bags) in accordance with permit requirements. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards, ch. NR 243, Wis. Adm. Code and this permit.

If any upgrades or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval prior to construction.

3.4 - Manure and Process Wastewater Storage

The permit requires operations to have adequate storage for manure and process wastewater. All storage or containment facilities must be designed, operated and maintained to prevent overflows and minimize discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that may not be exceeded. Permittees must maintain at least 180-days of liquid manure storage, with limited exceptions. If any upgrades or modifications to a storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval prior to construction.

Operations covered under the Large Dairy CAFO GP are permitted to stack solid manure during February and March in accordance s. NR 243.141 provided that the manure is stackable and has at least 16% solids. Stacking requirements reflect siting restrictions contained in NRCS Standard 313, Table 9. Stacking of manure is

considered to be part of the production area and is subject to the Production Area Discharge Limitations. Unless approved by the Department as part of the permittee's nutrient management plan, solid manure stacking is prohibited. Operations looking to stack solid manure during other times of the year will need to obtain coverage under an individual WPDES permit.

Operations are required to analyze manure, process wastewater, and soils from fields used for manure and process wastewater applications on a periodic basis. Soil sampling of a field must occur at least once every four years. Soil analysis is used to determine compliance with approved nutrient management practices and to serve as a basis for future manure and process wastewater applications.

3.5 – Sampling Point(s) – Manure and Process Wastewater Storage and Production Facilities

The permit identifies different sources of land applied materials (e.g., manure storage facilities, sources of process wastewater such as milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials.

The permittee is authorized to use only the storage facilities identified in the cover letter granting coverage under this general permit. The Department will identify and describe authorized storage facilities in the cover letter granting coverage under this permit.

Solid manure, liquid manure and process wastewater sources are identified in the GP by designating them with the sample point number S001, S002, and S003, respectively. Storage and production areas from which materials are directly land applied shall be identified using the corresponding sample point number, following by a letter suffix for each type of storage or production facility falling into each of the main sample point numbers (e.g., S001A, S001B, S002A, S002B). The Department must authorize, in writing, construction and inclusion of any additional storage areas for coverage under this GP.

Landspread materials are sampled for nitrogen, phosphorus and % solids with the following frequency: solid manure – quarterly; liquid manure – twice a month; process wastewater - twice a month. If a given material is not landspread during a given quarter or month, sampling is not required. This information is used to determine compliance with nutrient application requirements. Permittees must keep daily records when they are land applying materials. In addition, permittees must annually submit reports detailing landspreading activities.

3.6 - Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

3.7 - Nutrient Management

The Large Dairy CAFO GP requires all landspreading of manure and process wastewater be completed in accordance with an approved Nutrient Management Plan (NMP). Failure to comply with the requirements of an NMP is a permit violation. The permit requires sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Permittees must submit changes to an NMP to the Department for review and approval prior to implementation. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets. It should also be noted that certain changes to the NMP, such as addition of landspreading acreage, will require additional public notice.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses

phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). In accordance with federal NPDES CAFO requirements, these practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

The permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March. Operations covered under the Large Dairy CAFO GP must have 180-days of storage of liquid manure upon permit coverage and are prohibited from surface applying liquid manure ($< 12\%$) on frozen or snow-covered ground, except during emergencies (as defined in s. NR 243.14(7)(d) and (f)).

3.8 - Monitoring and Sampling Requirements

Permittees covered under the Large Dairy CAFO GP are required to conduct daily, weekly and quarterly inspections of various part of their animal production areas to avoid potential discharges and ensure permit compliance. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. Permittee must take corrective actions to address problems identified through inspections or otherwise notify the Department. The permit requires periodic inspections and calibrations of landspreading equipment as well as visual inspections of fields during and shortly after surface applications on frozen or snow-covered ground. Operations must have a monitoring and inspection program in place that outlines how they will conduct self-inspections to determine compliance with permit conditions prior to permit coverage.

4 Schedules

The schedules outlined in the permit are included to monitor an operation's permit compliance as well as help maintain compliance with the permit. Operations covered under the Large Dairy CAFO GP must comply with the following schedules outlined in the permit:

- Operations are required to develop an Emergency Response Plan within 30 days of permit issuance. The Emergency Response Plan shall identify how the permittee will address potential unauthorized spills and discharges. While a permittee does not need to submit the plan to the Department, it must be made available to the Department upon request.
- Operations must submit Annual Reports summarizing landspreading activities and production area inspections from the previous year by January 31st of each year.
- Operations must submit annual updates to their Nutrient Management Plan by March 31st of each year.
- Operations must submit a reissuance application by September 30, 2015 (180 days from the expiration of the Large Dairy CAFO GP). s. NR 243.12(2)(b) outlines what information must be submitted as part of the permit reissuance application.

5 Standard Requirements

5.1 – General Conditions

Standard wastewater permit conditions from ch. NR 205 (noncompliance, spills, reporting data, process changes, etc.) are included as Part 5 of this permit, along with other standard conditions contained in individual CAFO WPDES permits.

5.2 - Livestock Operation General Requirements

The permittee shall properly manage animal carcasses to avoid impacts to storage structures and waters of the state. In addition, the permittee shall record the date and method of carcass disposal.

Construction of any new reviewable structures or systems (e.g., manure storage facilities, runoff control systems) shall comply with applicable design requirements in s. NR 243.15 and must be approved by the Department prior to construction.

The permittee shall keep records associated with production area and land application activities for at least 5 years. The Department has developed Form 3200-123A to facilitate record keeping of daily hauling activities.

In addition, the permittee is required to (1) submit reports to the Department that address failure of the permittee to take corrective action within 30 days of identifying a malfunction, failure, permit noncompliance or other identified problem and (2) submit an annual report that includes quarterly summary reports of production area inspections, summaries of annual spreading activities (including results of soil, manure and process wastewater analyses) and other information required in s. NR 243.19(3) for the previous calendar year or cropping year. The Department has developed Form 3200-123 to facilitate annual spreading activity reporting.

The proposed effective date of the permit is April 4, 2011 and the proposed expiration date is March 31, 2016. Permittees submitting a reissuance application shall maintain coverage under the Large Dairy CAFO GP until coverage under a reissued Large Dairy CAFO GP is authorized or the operation is issued an individual permit. Operations are required to reapply for a WPDES permit unless they document they are no longer a CAFO and have no potential to discharge manure or process wastewater to waters of the state.

6 Summary of Reports Due

The Department has included a summary table of submittal dates for various reports and plans required as part of the permit.

Proposed Expiration Date:

March 31, 2016

Prepared by:

Wisconsin Department of Natural Resources
Bureau of Watershed Management

Date: April 4, 2011