

**SMALL OR MEDIUM
CONCENTRATED ANIMAL FEEDING OPERATIONS
Fact Sheet For Public Notice
WPDES Permit No. WI-0063282-01
February 2010**

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. GP's 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

While all large CAFOs (those operations that have at least 1,000 animal units-the equivalent of 700 milking cows, 1000 beef cattle, or 2500 swine 55 lbs. or greater) are required to obtain a WPDES permit, small and medium sized animal feeding operations (those with fewer than 1,000 animal units) are only required to obtain coverage under a WPDES if it is required by Department regulations. Animal feeding operations with fewer than 1,000 animal units may be defined or designated as a CAFO in accordance with NR 243 and may be required by the Department to obtain coverage under a WPDES permit on a case-by-case basis. These operations are called small or medium CAFOs. Medium animal feeding operations (300-999 animal units) are defined as a CAFO if they have certain discharges to navigable waters. In addition, medium and small (1-299 animal units) animal feeding operations can be designated as a CAFO by the Department because of other types of discharges to waters of state, including discharges that cause the fecal contamination of water in a well.

The Department has been issuing WPDES permits to small, medium and large CAFOs beginning in 1985 with the passage of ch. NR 243, Wis. Adm. Code (NR 243), the Department's rule outlining CAFO requirements. Historically, the permit program for CAFOs has primarily been used for large CAFOs. As of February of 2010, there are roughly 189 large CAFOs in Wisconsin, most of which are dairy operations. Fewer than 5 permits have been issued to small or medium operations since the inception of the CAFO permit program.

The Department currently issues individual WPDES permits to all CAFOs. To provide a streamlined mechanism to regulate water quality impacts from some of these operations and allow for increased compliance enforcement efforts, the Department is proposing to issue a WPDES GP for Large Dairy CAFOs (WPDES Permit No. WI-0063274-01) as well as Small or Medium CAFOs (WPDES Permit No. WI-0063282-01).

Only small and medium animal feeding operations that are required to obtain a permit from the Department will be covered under the Small or Medium CAFO GP. Consistent with past regulatory practice, the Department intends to continue to work cooperatively with small and medium animal feeding operations to address discharges to waters of the state in order to make issuance of a WPDES permit unnecessary. This approach includes using voluntary programs or the issuance of a Notice of Discharge (NOD) under NR 243, which typically provides an opportunity to obtain cost-share and technical assistance, to aid an operation to implement corrective measures.

The proposed Small or Medium CAFO GP could be used to cover all animal types (e.g., swine, beef, poultry and dairy) provided they have fewer than 1,000 animal units and permit coverage has been determined to be necessary by the Department. The revisions to NR 243 facilitated the issuance of a Small or Medium CAFO GP by creating more standardized and protective permit requirements that lend themselves to inclusion in a GP.

For operations (1) failing to correct discharges voluntarily or as part of the NOD process, (2) that have particularly significant water quality impacts (e.g., well contaminations, fish kills), or (3) with repetitive discharges, and where the Department has determined WPDES permit coverage is warranted and necessary, the permit application process for coverage under an individual or general WPDES permit will be essentially the same. The Department requires that the operation submit application forms 3400-25 and 3400-25A and a Nutrient Management Plan and may require additional information. If a permittee fails to submit an application, the Department may pursue further enforcement action.

Permit Requirements

1 Applicability Criteria

The Department is proposing to limit the use of the Small or Medium CAFO GP to those operations where a permit is deemed necessary to correct and avoid water quality impacts that are not appropriately addressed via other methods. Below is a table indicating the number of mature or immature animals that would typically be covered by the Small or Medium 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 which all count toward the total number of animal units (often referred to as the “mixed animal unit calculation”) so the actual total number of head will vary from operation to operation. Operations covered under the Small or Medium CAFO GP are not eligible for state cost-share dollars and may not expand to become a Large CAFO (1,000 animal unit threshold or more) while covered under the Small or Medium CAFO GP.

ANIMAL TYPE	Number of Animals Equivalent to 299 AUs	Number of Animals Equivalent to 999 AUs
DAIRY CATTLE		
Milking and Dry Cows	209	699
Heifers (800 to 1200 lbs)	299	999
Heifers (400 to 800 lbs)	299	999
Calves (under 400 lbs)	1,495	4,999
VEAL CALVES		
Per Animal	299	999
BEEF CATTLE		
Steers or Cows (400 lbs to Mkt)	299	999
Calves (under 400 lbs)	1,495	4,999
SWINE		
Pigs (55 lbs to Mkt)	213	2,499
Pigs (up to 55 lbs)	2,990	9,999
SHEEP		
Per Animal	2,990	9,999
HORSES		
Per Animal	149	499
DUCKS		
Per Bird (Non-liquid poultry manure handling)	8,978	29,999
CHICKENS		
Layers (Non-liquid poultry manure handling)	24,308	81,999
Broilers and Pullets (Non-liquid poultry manure handling)	37,375	124,999

TURKEYS		
Per Bird	16,611	54,999
(See ch. NR 243.05, Wis. Adm. Code, Table 2A and 2B, for a complete listing of animal types)		

Ultimately, coverage under the proposed CAFO GP is dependent on the Department's determination that the GP is appropriate for a given operation. While a given operation may meet the eligibility criteria of the GP, the Department may determine on a case-by-case basis that coverage of the operation is not appropriate and will issue an individual permit to the operation.

2 Granting of Coverage

Similar to the process for the issuance or reissuance of an individual CAFO WPDES permit, the Department is currently public noticing the proposed issuance of the Small or Medium CAFO WPDES GP. Unlike an individual CAFO WPDES permit which is public noticed in the area where the operation will be located, the Department will notice the Small or Medium CAFO GP on a statewide basis. During the public comment period the Department will accept written comments on the proposed GP (and associated Environmental Assessment). The Department is also holding public hearings throughout the state to provide additional opportunities for public comment. The Department will include a response to comments and a Notice of Final Determination to people who commented on the permit upon issuance of the permit.

Once the Small or Medium CAFO GP is issued, the Department can begin covering operations under the GP in those situations where permit coverage is deemed necessary to address water quality impacts. 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 GP program is implemented. Prior to conferring coverage under the GP, the Department will have completed a site investigation, identified water quality impacts at the site, discussed the issues with the operation and local partners (typically the county land conservation department), and determined the appropriate method to address identified impacts. In most cases, the Department will have issued an NOD and, depending on the nature of the discharge, may include an offer of cost-sharing to address the discharge. Medium CAFOs (300-999 AUs) with a Category I discharge (see s. NR 243.24(1)) are required to apply for and obtain permit coverage before a discharge occurs. Coverage of an operation under the Small or Medium CAFO GP is typically the last step in the Department's efforts to address an operation's impacts to waters of the state.

The permit application will include a minimum of information contained in form 3400-25 and 25A and a Nutrient Management Plan. In addition, the Department may require that an operation must submit a additional information n accordance with s. NR 243.12.

Upon submittal, the Department will review an operation's WPDES permit application along with other factors in order to deem if coverage under the GP is warranted. If the Department determines that permit issuance is warranted, the Department will public notice its proposed decision to cover the operation under the WDPES Small or Medium CAFO GP. Upon completion of the public notice and comment period and after responding to comments (and hearing comments if a hearing was held), the Department will convey coverage via letter to the permittee under the CAFO GP. The letter conveying coverage will identify runoff control systems and manure storage facilities authorized to be used by the permittee under the GP. In addition, the letter conveying coverage will identify runoff control systems and manure storage facilities that need to be evaluated and upgraded or replaced in order to address discharges to waters of the state. Upon conferring coverage to an operation under the GP, the operation is subject to the requirements of the GP and must operate in accordance with the conditions outlined in the permit. The operation will remain covered under the GP and will apply for coverage under the reissued version of the GP unless directed otherwise by the Department. Department determination of continued coverage under the GP will be based on the presence of unaddressed discharges and/or information provided in an operation's reissuance application.

3 Livestock Operational and Sampling Requirement

Unlike WPDES permits for Large CAFOs which are required for operations to operate at or above 1000 animal units, the use of the Small or Medium CAFO GP will be limited to those operations that have unacceptable practices and discharges to waters of the state that have not been addressed. In accordance with NR 243, Large CAFOs are required to comply with many WPDES permit requirements upon permit issuance (e.g., Production Area Discharge Limitations, most nutrient management requirements). Unlike Large CAFOs, small and medium animal feeding operations are being covered under a WPDES permit because the permit is being used a tool to address discharges and achieve compliance with water quality requirements. Therefore, the Small or Medium CAFO GP contains a number of compliance schedules that serve as the means to address discharges from these operations that commence on the date of permit coverage.

Upon completion of applicable compliance schedules, the permit conditions for a Small or Medium CAFO will be very similar to the requirements for a large CAFO and the requirements that would apply to the operation had an individual permit been issued.

3.1 - Production Area Discharge Limitations

Small or Medium CAFOs are not required to follow the federal effluent limitations and guidelines in 40CFR 412. Instead, the Department is using Best Professional Judgement (BPJ) to establish technology based limitations using factors in s. 40CFR 125.3.

For all operations covered under this GP, proper storage and runoff control systems must be installed in accordance with the applicable permit compliance schedules outlined in the cover letter conferring coverage under the GP. Compliance schedules for production area improvements (e.g., manure and process wastewater storage, feedlot and feed storage runoff) allow operations two years from the date of permit coverage to install and implement final corrective measures to address production area discharges. Interim runoff control measures to minimize impacts to waters of the state are required within nine months of permit coverage. Upon completion of the two-year compliance schedule, the permittee must comply with the following production area discharge limitations:

The permittee may not discharge pollutants from the production area to navigable waters (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas), with the following exceptions:

- For all areas of the production area except for raw material storage areas (e.g., feed storage), discharges of pollutants are only allowed if a precipitation event causes the overflow of a storage/containment 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.
- For raw material storage areas, all runoff control systems must be properly designed, constructed and maintained to contain or treat the runoff for up to a 25-year, 24-hour rainfall event for the county where the operation is located.

Expanding operations face further restrictions if their discharge is to an Outstanding or Exception resource water (ERW/ORW). Operations covered under this permit face additional restrictions if they discharge to a 303(d) listed (impaired) waterbody.

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 elements of the production area to prevent or minimize 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" even though sampling is not 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, following by a letter suffix for each system (e.g., R001, R002, R003). The Department must approve, in writing, construction and inclusion of any additional runoff control systems for coverage under this General Permit.

If needed, interim measures shall be implemented to prevent or minimize discharges of pollutants to navigable waters within 9 months of permit coverage. Operations covered under the GP may use non-permanent feed storage areas (e.g., silage bags) in accordance with certain 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 upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Operations covered under the GP may use non-permanent feed storage areas (e.g., silage bags) in accordance with permit requirements, which include prior Department approval. 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 and ch. NR 243, Wis. Adm. Code.

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

In accordance with a compliance schedule outlined in the permit, operations that do not have 180-days of liquid manure storage are required to obtain such storage within two years of permit coverage. 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 new facilities or upgrades or modification to storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval prior to construction.

Operations covered under the Small or Medium 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 permittees 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 approve, 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 Small or Medium CAFO GP requires that permittees submit a Nutrient Management Plan (NMP) that complies with the GP within 6 months of permit coverage if the permittee has not done so as part of its permit application. Upon Department approval, the permittee must implement and comply with the NMP. The approved NMP and permit will require 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. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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). 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. Once an operations covered under the Small or Medium CAFO GP has 180-days of liquid manure storage it is 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 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. 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. Permittees must submit a monitoring and inspection program that outlines how they will conduct self-inspections to determine compliance with permit conditions.

4 Schedules

The compliance schedules outlined in the permit are included to address discharges at an operation's site, monitor an operation's permit compliance as well as help maintain compliance with the permit. Operations covered under the Small or Medium CAFO GP must comply with the following schedules outlined in the permit:

- Operations are required to develop an Emergency Response Plan with 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 are required to submit a proposed monitoring and inspection program within 90 days of permit coverage.
- Operations must submit a Nutrient Management Plan that complies with the NR 243.14 and the terms and conditions of the GP within six months of permit coverage. The GP also requires annual updates to their nutrient management plan.
- Operations must submit Annual Reports summarizing landspreading activities and production area inspections from the previous year
- Operations must submit a reissuance application within 180 days of expiration of the Small or Medium CAFO GP. s. NR 243.12(2)(b) outlines what information must be submitted as part of the permit reissuance application.
- Installation or Evaluations of Manure/Process Wastewater Storage Facilities or Runoff Control Systems: The GP contains a number of compliance schedules that the Department can include as part of the letter conferring coverage under the GP, depending on the issues that need to be addressed at the operation. For example, if a structure such as a manure storage facility is needed to provide 180-day storage, the section “Compliance Schedule #2: Manure Storage (Installation)” will be required as part of the cover letter. If an existing runoff control system for a feedlot is an issue, the section “Compliance Schedule #5: Runoff Control System (Evaluation)” will be required as part of the cover letter. Final action on these compliance schedules is required within two years of the date the operation is covered under the GP.

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 for annual spreading activity reporting.

The proposed effective date of the permit is May 1, 2010 and the proposed expiration date is April 30, 2015. Permittees must submit a reissuance application prior to the expiration date of the permit unless a given permittee has demonstrated that all compliance issues at the operation have been addressed and the Department has informed the permittee, in writing, that coverage under this GP is no longer necessary.

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.

Information on the public comment period start and end dates for this permit and associated Environmental Assessment (EA), date and locations of public informational hearings on the permit and EA, and procedures for submitting comments on this permit and EA are contained in the public notice for this permit.

Thomas S. Bauman, Wastewater Engineer
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