

## Chapter NR 243

### ANIMAL FEEDING OPERATIONS

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**Note:** All documents incorporated by reference in this chapter may be inspected at the offices of the department, Secretary of State, 30 West Mifflin Street, Madison, Wisconsin 53702 and the Revisor of Statutes, 131 West Wilson Street, Suite 800, Madison, Wisconsin, 53702. Copies of these documents may be obtained from the Department of Natural Resources, Bureau of Watershed Management, 101 South Webster Street, Madison, Wisconsin 53702]

**Subchapter I — General**

**NR 243.01 Purpose.** (1) The purpose of this chapter is to implement design standards and accepted manure management practices for concentrated animal feeding operations. This chapter also establishes the criteria under which the department may issue a notice of discharge or a permit to other animal feeding operations which discharge pollutants to waters of the state or fail to comply with applicable performance standards and prohibitions in ch. NR 151. For other animal feeding operations, it is the intent of the department that a permit would be issued only when it can be demonstrated that an operation has a discharge of pollutants to waters of the state. The authority for promulgation of this chapter is in chs. 281 and 283, Stats.

(2) The department recognizes the unique nature of the state’s agricultural industry and the industry’s declared interest in protecting and preserving the state’s natural resources. The department also recognizes the benefit of manure applied to land for its fertilizer and soil conditioning value, and encourages the management and use of these materials in such a manner. Only those animal feeding operations which improperly manage their wastes and as a result cause ground or surface water pollution or which fail to comply with applicable performance standards and prohibitions or those operations subject to the requirements for concentrated animal feeding operations will be regulated under this chapter. It is not the intent of the department to require that all animal feeding operations obtain a permit.

**History:** CR 00–034: cr. Register September 2002 No. 561, eff. 10–1–02.

**NR 243.02 Applicability.** The provisions of this chapter are applicable to concentrated animal feeding operations as defined in s. NR 243.11 and other animal feeding operations which discharge pollutants to waters of the state as determined under subch. III.

**History:** CR 00–034: cr. Register September 2002 No. 561, eff. 10–1–02.

**NR 243.03 Definitions.** The following definitions are applicable to terms used in this chapter. Definitions of other terms and meanings of abbreviations are in ch. NR 205.

(1) “Accepted management practices” means practices, techniques or measures through which runoff, manure, milking center waste and other waste streams associated with an animal feeding operation are handled, stored, utilized or otherwise controlled in a manner which is intended to achieve compliance with livestock performance standards and prohibitions established in ch. NR 151 and water quality objectives established under chs. 281 and 283, Stats. These practices, techniques or measures are in ch. NR 154

and ch. ATCP 50 and may also include additional practices and procedures as approved by the department on a case-by-case basis.

(2) “Animal feeding operation” means a feedlot or facility, other than a pasture, where animals have been, are or will be fed, confined, maintained or stabled for a total of 45 days or more in any 12-month period. Two or more animal feeding operations under common ownership or common management are a single operation if at least one of the following is true:

- (a) The operations are adjacent.
- (b) The operations utilize common systems for the landspreading of manure or other wastes, including a manure management plan or landspreading acreage.
- (c) Manure, barnyard runoff or other wastes are commingled in a common storage facility prior to landspreading.

(3) “Animal unit” means a unit of measure used to determine the total number of single animal types or combination of animal types, as specified in s. NR 243.11, which are fed, confined, maintained or stabled in an animal feeding operation.

(4) “ASTM” means the American society for testing and materials.

(5) “Chronic rainfall event” means a series of wet weather conditions that preclude the removal of manure or wastes from a properly designed, operated and maintained retention structure.

(6) “Combined animal units” means any combination of animal types calculated by adding the number of single animal types as multiplied by the equivalency factors as specified in s. NR 243.11.

(7) “Compost” has the meaning specified under s. NR 500.03 (44).

(8) “Composting” has the meaning specified under s. NR 500.03 (45).

(9) “Concentrated animal feeding operation” means an animal feeding operation which feeds, confines, maintains or stables 1,000 animal units or more.

(10) “Contaminated runoff” means that portion of manure, wastes or raw materials and precipitation from animal feeding operations that transports pollutants such as organic matter, suspended solids or nutrients.

(11) “Corrective measures” means accepted management practices or technical standards specified in ch. NR 154 or ch. ATCP 50, designed to address an unacceptable practice or other practices determined by the department to be necessary to protect water quality.

(12) “DATCP” means department of agriculture, trade and consumer protection.

(13) “Department” means the Wisconsin department of natural resources.

(14) “Designed structures” means groundwater monitoring systems, runoff control structures, permanent spray irrigation or other land application systems, manure or waste storage facilities or other manure or waste transfer or treatment systems.

(15) “Diversion” means a structure built to divert part or all of the water from an existing waterway into a different channel.

(16) “Dry lot” means a facility for growing ducks in confinement with no access to external swimming areas.

(17) “Exceptional resource water” means any surface water, or portion thereof, in s. NR 102.11.

(18) “Grassed waterway” means a natural or constructed waterway or outlet shaped or graded and established in suitable vegetation as needed for the conveyance of runoff from a field, diversion or other structure.

(19) “Livestock performance standards and prohibitions” means performance standards and prohibitions contained in ss. NR 151.05, 151.06, 151.07 and 151.08.

(20) “Manure” means a material that consists primarily of excreta from livestock, poultry or other animals.

(21) “Milking center waste” means all wastes generated at a milking center or milkhouse including waste milk, detergents, acids, sanitizers, manure, bedding materials and footbath chemicals.

(22) “NOD” means notice of discharge.

(23) “NRCS” means the Wisconsin natural resources conservation service.

(24) “Outstanding resource water” means any surface water, or portion thereof, in s. NR 102.10.

(25) “Pasture” means an area of land where animals graze or otherwise seek feed in a manner that maintains the vegetative cover over all of the grazing area and where the vegetative cover is the primary food source for the animals.

(26) “Permanent runoff control systems” means constructions and devices installed to permanently control, divert or retard surface runoff water.

(27) “Permit” means a WPDES permit for the discharge of pollutants issued by the department under ch. 283, Stats.

(28) “Raw materials” means materials typically stored at an agricultural operation such as pesticides, herbicides, fertilizers, silage, haylage, grain and other feed sources.

(29) “Source water protection area” means an area delineated by the department for a public water system or including numerous public water systems, whether the source is ground water or surface water or both, as part of the state source water assessment program approved by the U.S. environmental protection agency under 42 USC 300j-13.

(30) “Storage facility” means an excavated or diked pond, walled structure or platform designed for containment of manure.

(31) “303(d) listed waters” means the list of impaired waters in the state developed by the department pursuant to 33 USC 1313 and 40 CFR s. 130.7.

(32) “25-year, 24-hour rainfall event” means a rainfall event measured in terms of the depth of rainfall occurring within a 24-hour period and having an expected recurrence interval of once in 25 years.

(33) “Unacceptable practice” means a practice that causes or has caused the discharge of pollutants to waters of the state or that results in an operation’s failure to comply with livestock performance standards and prohibitions outlined in ch. NR 151.

(34) “Wastewater treatment strip” means a constructed strip or area of vegetation for reducing sediment, organic matter and other pollutants contained in runoff designed in accordance with NRCS Standard 635, dated January, 2002. NRCS Standard 635, dated January, 2002, is incorporated by reference for this chapter.

**Note:** Copies of this document may be inspected at the offices of the department, DATCP, NRCS, county land conservation departments, the secretary of state and the revisor of statutes, Madison, WI.

(35) “Waters of the state” has the meaning specified under s. 283.01 (20), Stats.

(36) “Water quality management area” has the meaning in s. NR 151.015 (24).

(37) “Wet lot” means a facility for raising ducks which is open to the environment with a small portion of shelter area, and with external swimming areas or open water runs to which ducks have free access.

(38) “WPDES” means the Wisconsin pollutant discharge elimination system.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.04 Rainfall events.** The design rainfall amount and probable intensity of 25-year, 24-hour rainfall events for locations in Wisconsin shall be determined from the data in table 1, or for a particular location, the determination may be made on the basis of more recent rainfall probability data verified by a government agency and approved by the department for this purpose.

TABLE 1 Probable 24-Hour Rainfall Events, In Inches of rain, for counties in Wisconsin			
	25-year		25-year
Adams	4.7	Marathon	4.5
Ashland	4.3	Marquette	4.1
Barron	4.6	Marquette	4.6
Bayfield	4.4	Menominee	4.3
Brown	4.3	Milwaukee	4.5
Buffalo	4.8	Monroe	4.8
Burnett	4.6	Oconto	4.2
Calumet	4.4	Oneida	4.3
Chippewa	4.7	Outagamie	4.4
Clark	4.7	Ozaukee	4.4
Columbia	4.7	Pepin	4.8
Crawford	5.0	Pierce	4.8
Dane	4.8	Polk	4.7
Dodge	4.6	Portage	4.5
Door	4.1	Price	4.4
Douglas	4.4	Racine	4.6
Dunn	4.7	Richland	4.9
Eau Claire	4.7	Rock	4.7
Florence	4.1	Rusk	4.6
Fond du Lac	4.5	St. Croix	4.7
Forest	4.2	Sauk	4.8
Grant	5.0	Sawyer	4.5
Green	4.8	Shawano	4.4
Green Lake	4.6	Sheboygan	4.4
Iowa	4.9	Taylor	4.6
Iron	4.3	Trempealeau	4.8
Jackson	4.8	Vernon	4.9
Jefferson	4.6	Vilas	4.3
Juneau	4.7	Walworth	4.6
Kenosha	4.6	Washburn	4.5
Kewaunee	4.2	Washington	4.5
LaCrosse	4.9	Waukesha	4.6
Lafayette	4.9	Waupaca	4.5
Langlade	4.3	Waushara	4.6
Lincoln	4.4	Winnebago	4.5
Manitowoc	4.3	Wood	4.6

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**Subchapter II — Requirements for Concentrated Animal Feeding Operations**

**NR 243.11 Concentrated animal feeding operations. (1) APPLICABILITY.** The provisions of this subchapter are applicable to existing concentrated animal feeding operations, proposed expansions of existing animal feeding operations that

will become concentrated animal feeding operations and newly proposed concentrated animal feeding operations.

**Note:** Operations are responsible for obtaining all necessary state and local permits and approvals in addition to those outlined in this subchapter.

**(2) CALCULATION OF ANIMAL UNITS.** The determination as to whether an existing, proposed or expanded operation meets the criteria of a concentrated animal feeding operation shall be based on the total number of animal units at the operation. The total number of animal units for a given type of animal shall be calculated by multiplying the number of animals for each animal type by the appropriate equivalency factor from table 2, and summing the products. The number of combined animal units shall be the sum of the number of animal units for each animal type. For animal types not listed in table 2, the equivalency to animal units shall be based on live animal weights. In these cases, 1,000 pounds of live weight is equivalent to one animal unit. Based on the provisions of this subchapter and information provided as part of an operation's application for a WPDES permit, as required in s. NR 243.12, the department shall determine whether a WPDES permit needs to be issued to an operation.

**Note:** Stormwater construction site permit procedures and requirements outlined in ch. NR 216 may apply to construction activities.

**(3) ADDITIONAL INFORMATION.** If requested by the department, owners or operators indicating that their operation will have 900 animal units or more shall submit additional information regarding how the estimated number of animal units was calculated in accordance with table 2.

TABLE 2 Number Equivalent to 1,000 Animal Units		
NUMBER EQUIVALENT TO 1,000 ANIMAL UNITS	ANIMAL TYPE	ANIMAL EQUIVALENCY FACTOR
<b>DAIRY CATTLE:</b>		
700	Milking and Dry Cows	1.4
910	Heifers (800 to 1200 lbs)	1.1
1670	Heifers (400 to 800 lbs)	0.6
5000	Calves (under 400 lbs)	0.2
<b>BEEF CATTLE:</b>		
1000	Steers or Cows (600 lbs to Mkt)	1.0
2000	Calves (under 600 lbs)	0.5
700	Bulls	1.4
<b>SWINE:</b>		
2500	Pigs (55 lbs to Mkt)	0.4
10000	Pigs (up to 55 lbs)	0.1
2500	Sows	0.4
2000	Boars	0.5
<b>SHEEP:</b>		
10000	Per Animal	0.1
<b>HORSES:</b>		
500	Per Animal	2.0
<b>DUCKS:</b>		
5000	Per Bird (Wet Lot)	0.2
100000	Per Bird (Dry Lot)	0.01
<b>CHICKENS:</b>		
100000	Layers	0.01
200000	Broilers	0.005
100000	Broilers (continuous over-flow watering)	0.01
30000	Layers or Broilers (liquid manure system)	0.033
<b>TURKEYS:</b>		
55000	Per Bird	0.018
<b>COMBINED ANIMAL UNITS:</b>		
1000	Calculated Total	

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**NR 243.12 WPDES permit application requirements.** (1) All concentrated animal feeding operations are required to be covered by a WPDES permit. Pursuant to s. 283.37 (2), Stats., a complete application for a WPDES permit shall be filed by a concentrated animal feeding operation in accordance with the following requirements:

(a) Any person owning or operating an existing concentrated animal feeding operation that is not already covered by a WPDES permit shall immediately file an application for a WPDES permit with the department.

(b) Any person who is proposing to own or operate a concentrated animal feeding operation shall file an application for a WPDES permit at least 12 months prior to the intended date on which the operation would become a concentrated animal feeding operation.

(c) Operations that currently hold a WPDES permit shall reapply at least 180 days prior to the expiration date of their current WPDES permit.

(2) In order for the department to consider a WPDES permit application complete and begin processing the application, operations shall submit all of the following information:

(a) For operations applying for the first time:

1. The location of the existing or proposed site on plat maps, aerial photographs and soil survey maps.

2. A scaled drawing of existing and proposed animal housing, manure storage or composting facilities, runoff control structures, groundwater monitoring and water supply wells, treatment systems, loafing and outside lot areas, feed storage structures and other raw materials storage areas. Existing features shall be clearly delineated from proposed features.

3. A preliminary manure management plan describing how manure and other types of waste, such as milking center waste, are proposed to be stored and landspread. The preliminary manure management plan shall include:

a. A narrative overview of the operation's manure management including anticipated amounts and types of manure and waste produced on an annual basis and method of landspreading or other methods of disposal or treatment.

b. Information and calculations on acreage needed for utilization of manure and other types of waste based on nitrogen and phosphorus budgets for existing and planned crop rotations and other criteria to minimize entry of nutrients to groundwater and surface waters as specified in NRCS Standard 590, dated March 1999, and the NRCS Technical Note on Conservation Planning, WI-1, for Nutrient Management, dated October 21, 1993. NRCS Standard 590, dated March 1999, and the NRCS Technical Note on Conservation Planning, WI-1, for Nutrient Management, dated October 21, 1993, are incorporated by reference for this chapter.

**Note:** Copies of these documents may be inspected at the offices of the department, DATCP, NRCS, county land conservation departments, the secretary of state and the revisor of statutes, Madison, WI.

c. Additional information the department determines is necessary to identify possible water quality impacts associated with an operation's landspreading activities.

4. A description of existing and proposed manure storage or composting facilities. Plans and specifications for new manure storage or composting facilities or proposed modifications to existing manure storage or composting facilities shall also be submitted. Upon approval by the department, plans and specifications for proposed storage or composting facilities may be submitted during the term of the permit. In addition, evaluations of existing manure storage or composting facilities not previously reviewed and approved by the department shall be submitted.

5. A description of existing and proposed runoff control systems, groundwater monitoring systems, permanent spray irrigation systems or other landspreading or treatment systems. Plans and specifications for new systems or proposed modifications to

existing systems shall be submitted. Upon approval by the department, plans and specifications for proposed systems may be submitted during the term of the permit. In addition, evaluations of existing systems not previously reviewed and approved by the department shall be submitted.

6. Any other information requested by the department that is necessary to comply with the requirements of ch. NR 150.

(b) For operations submitting a reissuance application:

1. Information on changes to the operation that have occurred during the current permit term and changes that are anticipated during the upcoming permit term.

2. The location of the existing site and proposed modifications to the site on plat maps, aerial photographs and soil survey maps.

3. Scaled drawing of existing and proposed animal housing, manure storage or composting facilities, runoff control structures, groundwater monitoring and water supply wells, treatment systems, loafing and outside lot areas and feed storage structures. Existing features shall be clearly delineated from proposed features.

4. An updated manure management plan reflecting changes that have occurred at the operation since the previous permit issuance or reissuance.

5. A description of existing and proposed manure storage or composting facilities.

6. A description of existing and proposed runoff control systems, groundwater monitoring systems, permanent spray irrigation systems or other landspreading or treatment systems.

7. Any other information requested by the department that is necessary to comply with the requirements of ch. NR 150.

(3) Application information shall be submitted along with a completed form 3400-25, including a completed animal unit calculation worksheet. The department shall take action on a complete application pursuant to s. NR 200.10.

**Note:** Applications can be obtained at regional offices of the department or the department's bureau of watershed management, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.13 Standard WDPES permit requirements for concentrated animal feeding operations.** (1) Pursuant to s. 283.31, Stats., the department shall include conditions in a WPDES permit that are necessary to achieve compliance with surface water and groundwater quality standards contained in chs. NR 102 to 105, 207 and 140. The department shall also include conditions in permits that are consistent with the following requirements:

(a) Owners or operators of concentrated animal feeding operations permitted under a WPDES permit shall comply with the livestock performance standards and prohibitions prescribed in ch. NR 151.

**Note:** Concentrated animal feeding operations are not eligible for cost sharing under chs. NR 153 and 154, nor is cost sharing necessary, for compliance with the livestock performance standards and prohibitions.

(b) Beginning on the effective date of the WPDES permit, there may be no discharge of pollutants to navigable waters from any manure storage areas, composting areas, outdoor animal lots, milking center waste treatment or containment systems, leachate containment systems, raw materials storage areas or other areas of the operation, except under the following circumstances:

1. The discharge occurs as a result of a 25-year, 24-hour rainfall event or greater; or

2. The discharge occurs as a result of a chronic rainfall event; and

3. Rain causes the discharge and the discharge is from a facility, structure or area which is properly designed and maintained to contain manure and other wastes from the operation and the rain from up to and including a 25-year, 24-hour rainfall event.

(c) If a discharge to waters of the state occurs, including a discharge allowed under par. (b), groundwater and surface water quality standards may not be exceeded.

(d) All land application of manure and other wastes shall be done in a manner that does not cause or contribute to the non-attainment of surface water and groundwater quality standards.

(2) Permittees shall submit a proposed monitoring and inspection program, including periodic inspection of designed structures, in accordance with the terms and conditions of the WPDES permit to determine compliance with sub. (1).

(3) The duration of WPDES permits shall comply with s. 283.53, Stats.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.14 Manure management.** (1) MANURE MANAGEMENT PLANS. In accordance with the conditions of their WPDES permit, owners or operators of concentrated animal feeding operations shall develop and submit a final manure management plan to the department for review and approval detailing the amounts, timing, locations and other aspects regarding the disposal of manure and other wastes. At a minimum, the land application of manure and other wastes shall be done in accordance with applicable criteria for minimizing entry of nutrients into groundwater and surface waters contained in NRCS Standard 590, dated March 1999, and the NRCS Technical Note on Conservation Planning, WI-1, for Nutrient Management, dated October 21, 1993. Manure management plans shall identify fields or areas of fields where the land application of manure is prohibited or restricted in accordance with these criteria or as specified in a WPDES permit.

**Note:** In accordance with s. NR 243.12, preliminary manure management plans must be submitted as part of a WPDES permit application.

(2) AMENDMENTS. The final manure management plan shall be reviewed and amended by the permittee, if necessary, on an annual basis to reflect changes in operations. The management plan may also be amended at any time provided the proposed amendments are approved in writing by the department. An amendment may not be put into effect until the department has reviewed and approved the amendment.

(3) OTHER NUTRIENTS. Manure and waste application rates specified in a manure management plan shall take into account soil nutrient levels prior to landspreading, nutrient levels from other sources, including commercial fertilizers, biosolids, legume credits and other sources of manure, that are expected to be applied or have already been applied to land where manure will be landspread.

(4) PERMIT CONDITIONS. (a) WPDES permits shall contain manure and soil sampling, record keeping and reporting requirements associated with the land application of manure or other methods of disposal.

(b) At a minimum, WPDES permits shall contain requirements consistent with the following:

1. Applicable criteria for minimizing entry of nutrients into groundwater and surface waters from NRCS Standard 590, dated March 1999, and the NRCS Technical Note on Conservation Planning, WI-1, for Nutrient Management, dated October 21, 1993.

2. Manure may not be spread on fields with a separation to groundwater of less than 10 inches.

3. Manure may not be spread on fields with soils less than 10 inches over fractured bedrock.

4. Surface applied manure may not pond on or run off of the intended site at any time.

5. Manure may not be applied on frozen or snow covered ground on fields with shallow soils that are 20 inches thick or less over fractured bedrock.

(c) The department may also include conditions in the WPDES that are in addition to or in place of the criteria in par. (b), when necessary to protect water quality. These conditions may include additional restrictions on nitrogen and phosphorus loadings or other nutrients and pollutants associated with the manure and

other wastes, incorporation requirements, restrictions on winter landspreading and distribution schedules. The department may consider nutrient management conditions contained in ch. ATCP 50 as well as the following factors when developing permit conditions or reviewing and approving the manure management plan or any proposed amendments to an approved manure management plan:

1. Potential impacts on and impairments to waters of the state due to overapplication or runoff of the manure.
2. Soil limitations such as permeability, infiltration rate, drainage class and flooding hazard.
3. Volume and water content of the waste material.
4. Available storage capacity and method of application.
5. Nutrient requirements of the crop or crops to be grown on the fields utilizing the manure.
6. The presence of subsurface drainage tile systems.
7. Potential impacts to waters identified as source water protection areas.

(d) Conditions contained in the WPDES permit for manure management plans shall include additional restrictions or management practices for manure or combined wastes beyond the conditions of par. (b) under any of the following:

1. For all WPDES permits, when necessary to control phosphorus loadings in a manner that will not contribute to the impairment of a 303(d) listed water.
2. For a new WPDES permit, when necessary to control phosphorus loadings in a manner that will not alter the background quality of outstanding or exceptional resource waters identified in ch. NR 102.
3. For a reissued or modified WPDES permit, where the operation has significantly increased loadings or application of manure to fields impacting an outstanding or exceptional resource water since the previous permit issuance. The additional phosphorus restrictions are for the purpose of maintaining the background quality of the outstanding or exceptional resource water.
4. When necessary to control any nutrient or pollutant associated with the operation's manure for the purpose of complying with surface water quality standards or groundwater standards.

**Note:** Also see s. NR 217.04 (1) (a) 5.

(e) The owner or operator shall be responsible for all manure from the operation in accordance with conditions contained in the WPDES permit and the approved manure management plan, except under the following conditions and with prior written approval from the department:

1. The manure is processed and distributed as a commercial product pursuant to a Wisconsin commercial fertilizer license issued by DATCP and the operation generating the manure does not land apply the manure. The amount of manure managed in such a manner shall be reported to the department on an annual basis unless specified otherwise in the conditions of the WPDES permit.
2. The manure is accepted by another operation permitted under a WPDES permit with a department approved manure management plan, or equivalent, and the operation generating the manure does not land apply the manure. The amount of manure managed in such a manner shall be reported to the department on an annual basis unless specified otherwise in the conditions of the WPDES permit.
3. The manure is composted and the department determines that the land application or disposal of the manure is more appropriately regulated under ch. NR 518. The amount of manure managed in such a manner shall be reported to the department on an annual basis unless specified otherwise in the conditions of the WPDES permit.

**(5) MANURE STACKING.** Stacking of manure outside of a department approved manure storage facility is not allowed, unless prior written department approval is obtained by a permit-

tee. The department shall review requests to stack manure on a case-by-case basis. All approved stacks shall, at a minimum, meet the specifications in NRCS Standard 313, dated June 2001, for unconfined manure stacks and requirements in s. NR 243.13 (1). NRCS Standard 313, dated June 2001, is incorporated by reference for this chapter. The department may require additional restrictions needed to protect water quality, which include acceptable time periods for stacking, how long the manure stacks may remain in place, size of manure stacks, stack siting restrictions based on slope and soil conditions, loading and resting requirements of stacking sites and site monitoring requirements. Manure may not be stacked in a water quality management area.

**Note:** Copies of this document may be inspected at the offices of the department, DATCP, NRCS, county land conservation departments, the secretary of state and the revisor of statutes, Madison, WI.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

### **NR 243.15 Submittal and approval of plans and specifications for designed structures or systems.**

**(1) GENERAL.** (a) *Submittal and construction.* In accordance with s. NR 243.12, plans and specifications for proposed designed structures or systems shall be submitted as part of the permit application unless written department approval is received for a later submittal. Plans and specifications shall also be submitted during the term of the permit if construction of a new designed structure or system or a modification to an existing designed structure or system is proposed during the term of the permit. Submittal of plans and specifications shall meet the requirements in s. NR 108.04 (2). An owner or operator may not commence construction of runoff control structures, permanent spray irrigation or other land application systems, groundwater monitoring systems, manure storage facilities, or other manure treatment or transfer systems until plans and specifications have been approved by the department in writing.

**Note:** In accordance with s. NR 108.04, submittals shall occur at least 90 days prior to the anticipated date upon which the owner or operator plans to commence construction.

**Note:** Department approval may be in addition to any local or county approvals needed. Also, a storm water construction WPDES permit may be required prior to construction pursuant to ch. NR 216.

(b) *General design and maintenance requirements.* Owners or operators of concentrated animal feeding operations shall, at a minimum, design, install and maintain structures or systems to meet the requirements in s. NR 243.13 (1) and accepted management practices.

(c) *Alternative practices.* 1. When the owner or operator responsible for the concentrated animal feeding operation demonstrates that accepted management practices or those practices specified in this section are more stringent than necessary to avoid a detrimental effect on water quality, the department may approve alternative practices. This demonstration may be made during the permit issuance process under ch. 283, Stats., or during the plan review process under s. 281.41, Stats. The department may only approve alternative practices if the design and operation of the alternative practices achieves compliance with the requirements of s. NR 243.13 (1).

2. For construction of proposed structures, the department may require that accepted management practices or those practices specified in this section be superseded by additional discharge limitations or design requirements, if the limitations or design requirements are necessary for water quality protection.

3. The department may require additional practices, conditions or permittee actions based on department review of submitted evaluations of previously constructed structures or systems, including the installation of groundwater monitoring, increased inspection frequency or system or structure replacement, upgrade or closure.

**(2) RUNOFF CONTROL.** (a) *General.* Owners or operators of concentrated animal feeding operations shall control contaminated runoff in accordance with the requirements specified in s. NR 243.13 (1). Compliance with these requirements shall be

achieved by designing, installing, operating and maintaining permanent runoff control systems that are consistent with accepted management practices such as wastewater treatment strips, sediment basins, waste storage facilities, roof runoff management, grassed waterways and clean water diversions.

(b) *Evaluations of constructed runoff control systems.* 1. All operations applying for a WPDES permit shall submit an evaluation of constructed runoff control systems not previously approved by the department, as part of their application for a WPDES permit. At a minimum, evaluations shall:

a. Include available post-construction documentation including the date and materials of construction.

b. Address the ability of the systems to meet the requirements of s. NR 243.13 (1) and accepted management practices.

2. The department may require an evaluation of a constructed runoff control system previously reviewed and approved by the department based on factors including the age of the system, identified environmental impacts and physical location of the system to waters of the state.

(3) **MANURE STORAGE.** (a) *General.* Owners or operators of concentrated animal feeding operations which have selected storage as part of a manure management system shall design storage facilities that, at a minimum, meet the design criteria contained in NRCS Standard 313, June 2001, and the requirements of s. NR 243.13 (1). Plans and specifications submitted by the owner or operator for department approval shall include a written management and site assessment, operation and maintenance plan and relevant calculations for any proposed manure storage facility.

(b) *Storage capacity and maintenance.* Storage structures shall be designed to provide storage capacity that is consistent with the operation's department approved manure management plan. Permittees shall operate and maintain manure storage facilities to prevent overtopping and discharges to waters of the state.

(c) *Following construction.* The owner or operator shall submit a post-construction report to the department that includes construction documentation. Construction documentation shall include verification that the specific criteria for confined impoundments found in NRCS Standard 313, June 2001, Table 1, 2, 3, 4 or 5, and the additional requirements specified under par. (d), have been met.

(d) *Additional requirements.* As part of its written approval of plans and specifications, the department may require additional design and operation requirements for water quality protection, beyond those contained in NRCS Standard 313, June 2001, based on the following conditions:

1. Physical location of the storage facility, including depth to groundwater and bedrock and proximity to surface waters and wetlands.

2. Soil limitations such as permeability, infiltration rate, drainage class and flooding hazard.

3. Volume and water content of the waste material.

4. Available storage capacity and method of application.

(e) *Earthen lined storage facilities.* 1. Prior to construction of earthen lined storage facilities, a soil testing laboratory, engineering firm or other qualified individual shall take representative samples from the soil to be used to line the bottom and sidewalls of the facility and analyze them for the following parameters: dry density, water content, compaction curves, particle size distribution, plastic index, permeability at design compaction and soil classification. Sample analysis results shall meet or exceed the design specifications contained in NRCS Standard 313, June 2001, or the department's additional conditions for the liner design established pursuant to par. (d).

2. Following construction of an earthen lined storage facility, the department may require the owner or operator to extract random core samples from the constructed liner based on critical groundwater, geologic or construction conditions. Sampling and

analysis shall be conducted by a soil testing laboratory, engineering firm or qualified individual. When testing is required, the core samples shall be extracted at a rate of 4 per acre of wetted area; except that a minimum of 3 core samples shall be extracted if the wetted area is less than one acre. The samples shall be split proportionally between the wetted areas of the bottom liner and sidewall liner relative to the total area of each. All test holes shall be recomacted to a density equal to or greater than the surrounding liner material. All of the core samples shall be analyzed by a soils testing laboratory or engineering firm for the following parameters: dry density, water content, degree of compaction, thickness of seal and particle size distribution. A permeability test shall also be performed on at least 25% of the total number of samples. Liner thickness design specifications are met if the thickness of each of the liner samples is equal to or greater than the specified design thickness in NRCS Standard 313, June 2001 or the department's additional conditions for the liner design established pursuant to par. (d).

3. The testing required in subs. 1. and 2. shall be conducted in accordance with the methods specified in table 3, except that the permeability of constructed earthen liners shall be determined using a laboratory permeability test on hydrated and saturated specimens of the liner material, compacted at the same approximate density as exists in the infield condition. Tests may be performed on remolded or core samples. The permeability shall be based on stabilized inflow and outflow rates during the test. Methods other than those listed in table 3 may be approved by the department on a case-by-case basis. The methods in table 3 are incorporated by reference.

Test	Method
Core Sample Extraction	ASTM D1587-00
Particle Size Analysis	ASTM D422-63 (1998)
Plastic Index	ASTM D4318-00
Standard Proctor Density	ASTM D698-00a
In Place Density	ASTM D2922-01 or ASTM D2937-00

**Note:** Copies of ASTM standards referenced in this chapter are available for inspection at the offices of the department of natural resources, the secretary of state and the revisor of statutes. ASTM standards may be obtained from the American society for testing and materials, 1916 Race Street, Philadelphia, PA 19103.

(f) *Evaluations of manure storage facilities.* 1. All operations applying for a WPDES permit shall submit an evaluation of constructed manure storage facilities not previously approved by the department as part of their application for a WPDES permit. At a minimum, evaluations shall:

a. Include available post-construction documentation including the date and materials of construction.

b. Address the ability of the systems to meet the requirements of s. NR 243.13 (1) and design criteria in NRCS Standard 313, June 2001.

2. The department may require an evaluation of a constructed manure storage facility previously reviewed and approved by the department based on factors including the age of the facility, the facility's current ability to meet the design specifications in NRCS Standard 313, June 2001, identified environmental impacts and physical location of the storage facility to waters of the state.

(4) **PERMANENT SPRAY IRRIGATION SYSTEMS.** (a) *General.* Proposed permanent spray irrigation and other treatment systems shall at a minimum meet the requirements of s. NR 214.14, soil investigation and groundwater monitoring criteria in ss. NR 214.20 and 214.21, and requirements specified in ss. NR 243.13(1) and 243.14.

(b) *Evaluations of spray irrigation systems.* 1. All operations applying for a WPDES permit shall submit an evaluation of constructed permanent spray irrigation systems not previously

approved by the department as part of their application for a WPDES permit. At a minimum, evaluations shall:

a. Include available post-construction documentation including the date and materials of construction.

b. Address the ability of the systems to meet the requirements of ss. NR 243.13(1) and 214.14, and soil investigation and groundwater monitoring criteria in ss. NR 214.20 and 214.21.

2. The department may require an evaluation of a constructed spray irrigation system previously reviewed and approved by the department based on factors including the age of the system, identified environmental impacts and physical location of the system to waters of the state.

(5) **GROUNDWATER MONITORING.** The department may require the installation of groundwater monitoring wells in the vicinity of manure storage facilities, runoff control systems, permanent spray irrigation systems and other treatment systems in those situations where critical groundwater, geologic or construction conditions warrant monitoring. If a groundwater monitoring system is required, it shall, at a minimum, be designed, constructed and monitored in accordance with chs. NR 140 and 141 and s. NR 214.21.

(6) **COMPOSTING FACILITIES.** The department shall determine if the design and operation of a manure composting facility is more appropriately approved under this section or ch. NR 502. This determination shall be based on factors such as the type of materials mixed with the manure and the amount and source of the materials, the method of composting and the characteristics of the final composted material. If the department determines that design and operation requirements for a composting facility are appropriately reviewed and approved under this section, the department may still apply additional design and operation requirements contained in ch. NR 502 as needed to protect water quality.

(7) **CLOSURE.** (a) *General.* If the permittee wishes to abandon structures or systems covered under this subchapter, a closure plan shall be submitted to the department for prior approval.

(b) *Manure storage facilities.* Closure of manure storage facilities shall be completed, at a minimum, according to NRCS Standard 360, June 2001. Closure of a manure storage facility shall occur when manure has not been added or removed for a period of 24 months, unless the owner or operator can provide information to the department that the structure is designed to store manure for a longer period of time or information that the storage structure will be utilized within a specific period of time. NRCS Standard 360, dated June 2001, is incorporated by reference for this chapter.

**Note:** Copies of this document may be inspected at the offices of the department, DATCP, NRCS, county land conservation departments, the secretary of state and the revisor of statutes, Madison, WI.

(c) *Monitoring wells.* Groundwater monitoring wells shall be abandoned in accordance with ch. NR 141.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02; corrections in (3) (a), (d), (e) 1. 2., (f) 1. b. and 2. made under s. 13.93 (2m) (b) 7., Stats., Register September 2002 No. 561.

**NR 243.16 Industrial, combined and other process wastes.** (1) **INDUSTRIAL WASTES.** If industrial wastes, including milking center waste, are separated and stored separately from manure, the storage and land application of the industrial wastes are subject to the requirements of chs. NR 213 and 214 and s. NR 243.13 (1). The department may require that an operation's manure management plan address land application of these wastes.

(2) **COMBINED WASTES.** If an operation combines manure with other types of waste, the department shall apply the requirements in ss. NR 243.13 (1), 243.14 and 243.15. The department may apply other requirements such as the requirements in ch. NR 113, 213 or 214 to the land application of the combined wastes and to the design of structures or systems associated with the combined

wastes. Factors that the department shall consider in determining other applicable requirements include the volume and characteristics of the wastes combined with the manure and any treatment of the combined wastes. The department may require that an operation's manure management plan address land application of these wastes.

### Subchapter III — Other Animal Feeding Operations

**NR 243.21 Purpose.** The purpose of this subchapter is to establish procedures, in cooperation with other federal and state agencies and governmental units, for addressing unacceptable practices through the issuance of a notice of discharge under s. 281.16, Stats., and ch. 283, Stats. Animal feeding operations with less than 1000 animal units that have unacceptable practices are subject to this subchapter.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.22 Definitions.** In this subchapter:

(1) "Governmental unit" means a municipality as defined in s. 281.01 (6), Stats.

(2) "Livestock facility" means a structure or system constructed or established on a livestock operation or animal feeding operation, including a runoff control system associated with an outside feedlot, manure storage facility or feed bunker.

(3) "Waters of the state" has the meaning specified under s. 281.01 (18), Stats.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.23 General requirements for animal feeding operations.** (1) **LIVESTOCK PERFORMANCE STANDARDS AND PROHIBITIONS.** (a) Animal feeding operations shall comply with the livestock performance standards and prohibitions in accordance with the requirements s. NR 151.095.

(b) The department may grant a variance to livestock performance standards or accepted management practices consistent with s. NR 151.097. A variance may not be granted to a livestock prohibition or other statutory requirements.

**Note:** Additional procedures for implementing cropland performance standards are included in ch. NR 151.

**Note:** Under s. 281.16 (3) (e), Stats., an owner or operator may not be required by the state, or a governmental unit through an ordinance or regulation, to bring existing livestock facilities into compliance with the livestock performance standards or prohibitions, technical standards or conservation practices unless cost sharing is available.

(2) **WPDES PERMITS.** In accordance with the requirements of s. NR 243.26, an owner or operator of an animal feeding operation may be required to apply for a WPDES permit as a result of certain unacceptable practices.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.24 Department determination of unacceptable practices.** Unless based on information provided as part of a WPDES permit application submitted pursuant to s. NR 243.26 (1), no determination may be made by the department that an unacceptable practice exists at an operation until there has been an onsite investigation by the department or a federal or state agency or governmental unit.

(1) Categories of unacceptable practices. The categories of unacceptable practices include:

(a) *Category I.* A category I unacceptable practice is a discharge to waters of the state resulting in the animal feeding operation meeting the federal definition of a point source established in 40 CFR part 122.23 and Appendix B to 40 CFR part 122.

1. An animal feeding operation meets the definition of a point source if:

a. Pollutants are discharged into navigable waters through a manmade ditch, flushing system or other similar man-made device, or

b. Pollutants are discharged into navigable waters that originate outside of and pass over, across or through the operation or

otherwise come into direct contact with the animals confined at the operation.

2. An animal feeding operation does not meet the federal point source definition if the discharges by the animal feeding operation occur only as a result of a chronic rainfall event or a 25-year, 24-hour rain event or greater and the discharges are from a facility, structure or area which is properly designed and maintained to contain manure and other wastes from the operation and the rain from a 25-year, 24-hour rainfall event.

(b) *Category II*. A category II unacceptable practice is a discharge of pollutants to waters of the state that is the result of a failure to comply with a livestock performance standard or prohibition.

(c) *Category III*. A category III unacceptable practice is a discharge of pollutants to waters of the state that does not meet the federal criteria of a point source discharge delineated in par. (a) and does not result from a failure to comply with a livestock performance standard or prohibition.

(2) COORDINATION WITH GOVERNMENTAL UNITS. The department shall notify the appropriate governmental unit prior to taking any of the following actions:

(a) Contacting an owner or operator of an animal feeding operation under the procedures in this subchapter to investigate an unacceptable practice.

(b) Issuing an NOD for a category II unacceptable practice.

(c) Taking enforcement action under s. 281.98, Stats., against a owner or operator of an animal feeding operation for failing to comply with a livestock performance standard or prohibition.

(d) Notification is not required if the unacceptable practice is an imminent threat to public health or fish and aquatic life.

(3) DEPARTMENT ACTION. If the department determines that an unacceptable practice exists at an operation based on its own onsite investigation, an investigation conducted by a federal or state agency or governmental unit, or information provided as part of WPDES permit application, the department may take any of the following actions:

(a) *For all unacceptable practices*. 1. The department may coordinate with a designated governmental unit to address the unacceptable practice and provide assistance to the owner or operator. This contact shall be made as soon as possible after the determination that an unacceptable practice exists at an operation to maximize opportunities for the governmental unit to provide assistance to the owner or operator.

2. The department may issue a notice of intent to issue an NOD.

(b) *Category I unacceptable practices*. For category I unacceptable practices, the department may take any of the following actions:

1. Issue an NOD to the owner or operator of the animal feeding operation to address the unacceptable practices.

2. Send the owner or operator a permit application if the owner or operator has not filed a WPDES permit application pursuant to s. NR 243.26.

3. Take direct enforcement action.

**Note:** The department may take direct enforcement action for discharges due to intentional acts or gross mismanagement by an owner or operator.

(c) *Category II unacceptable practices*. For category II unacceptable practices, the department may take any of the following actions:

1. Issue an NOD if requested by a governmental unit or if a governmental unit is not addressing a facility's noncompliance with livestock performance standards or prohibitions in a manner consistent with the procedures established in ch. NR 151.

2. Follow the procedures outlined in s. NR 151.095.

(d) *Category III unacceptable practices*. For category III unacceptable practices, the department may issue an NOD to the owner or operator.

**Note:** In most cases, the department will rely on governmental units to fully implement the livestock performance standards and prohibitions and address impacts to water quality from category II unacceptable practices. The department intends to issue NODs in accordance with this section in cases where a governmental unit has requested assistance in implementing and enforcing the performance standards or prohibitions or in cases where a governmental unit has failed to appropriately address unacceptable practices at animal feeding operations in a timely manner. The department recognizes that coordination between governmental units, the department of agriculture, trade and consumer protection and other state agencies is needed to achieve statewide compliance with the performance standards and prohibitions. Accordingly, the department plans on working with counties, the department of agriculture, trade and consumer protection and other interested partners to develop a detailed intergovernmental strategy for achieving compliance with the performance standards and prohibitions that recognizes the procedures in these rules, state basin plans and the priorities established in land and water conservation plans.

(4) NOTICE OF DISCHARGE. If the department issues an NOD to an animal feeding operation, it shall be sent certified mail, return receipt requested or personal delivery.

(a) The following information shall be included in the NOD:

1. Investigation summary. The department shall include a summary which describes the results of the onsite investigation used to determine that unacceptable practices exist at an operation. The summary shall include a determination of the category of the unacceptable practice that exists at the operation. The department shall provide a copy of the summary to the animal feeding operation and appropriate governmental unit.

2. Corrective measures. The NOD shall specify one or more suggested corrective measures for the unacceptable practice identified in the summary report. The NOD may be amended at any time to reflect changes to suggested corrective measures based on further evaluation and planning associated with addressing the unacceptable practice.

3. Technical and financial assistance. A list of known governmental or private services which may be available to provide technical or financial assistance shall be included in the NOD.

4. Category II determinations. For category II unacceptable practices, the NOD shall contain determinations consistent with s. NR 151.095, except for the compliance period determination. Determinations required under s. NR 151.095 may be included as part of the NOD or as amendments to the NOD. Compliance period requirements are contained in subd. 5.

**Note:** Section NR 151.095 contains the criteria and establishes the procedures for determining when cost sharing is required for eligible costs associated with corrective measures and when cost sharing is considered to have been made available. Cost sharing is not required for new facilities and for practices that do not involve eligible costs, such as moving a manure pile. Cost sharing for eligible costs may be available under ch. NR 120 or 153.

5. Compliance period. A reasonable compliance period for implementing necessary corrective measures shall be specified in the NOD. The compliance period identified in the NOD shall be determined by the department in accordance with the following:

a. The length of the compliance period shall be from 60 days to 2 years unless otherwise provided for in this paragraph.

b. The length of the compliance period may be less than 60 days if the site is an imminent threat to public health or fish and aquatic life.

c. The compliance period may not be more than 2 years unless an alternative compliance period has been mutually agreed upon by the department and the owner or operator of the animal feeding operation.

d. For existing facilities where corrective measures require cost sharing in accordance with s. NR 151.095 and where cost sharing has not previously been made available, the compliance period specified in an NOD shall begin on the date that cost share dollars are available pursuant to s. NR 151.095 (5) (d).

**Note:** Cost-share dollars may be offered as part of an NOD or may be included in an amendment to an NOD.

e. For all other facilities, the compliance period specified in the NOD shall begin on the date of the NOD, regardless of the availability of cost sharing.

6. Failure to comply. An explanation of the possible consequences if the owner or operator fails to comply with the provi-



sions of the notice, including enforcement or loss of cost sharing, or both.

(b) The department may request that proposed corrective measures be submitted to the department for review prior to implementing the corrective measures.

(c) The department may require that accepted management practices be superseded by additional design requirements or practices if they are necessary for water quality protection.

(d) The department may require that the operation, or designee, notify the department as to the status of implementing the corrective measures prior to the end of the compliance period.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.25 Enforcement.** (1) CATEGORIES I AND III. (a) Operations issued an NOD for a category I or III unacceptable practice shall implement corrective measures within the compliance period specified, regardless of the availability of cost sharing. The owner or operator may seek cost sharing to implement corrective measures within the specified compliance period, but if cost sharing is not available, the owner or operator shall install corrective measures to abate the discharge without cost sharing or otherwise apply for a WPDES permit.

(b) If the owner or operator does not implement the corrective measures within the specified time frame to address category I or III unacceptable practices, the department may issue a WPDES permit even if the owner or operator refuses to submit an application or the department may pursue enforcement action under ch. 283, Stats.

(2) CATEGORY II. For operations issued an NOD for a category II unacceptable practice, if the owner or operator of an animal feeding operation does not implement corrective measures within the compliance period specified in the NOD, and cost sharing has been made available for existing facilities or cost sharing is not required under s. NR 151.095, the department may take enforcement action pursuant to s. 281.98, Stats., require the submittal of a WPDES permit application or take other appropriate actions against the owner or operator.

**Note:** The procedures specified in this subchapter for category II unacceptable practices are limited to actions taken by the department under s. 281.98, Stats., for

noncompliance with a livestock performance standard or prohibition. Pursuant to other statutory authority, the department may take direct enforcement action without cost sharing against a livestock producer for willful or intentional acts or other actions by a producer that pose an imminent or immediate threat to human health or the environment.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.

**NR 243.26 WPDES permit applications.** (1) Any owner or operator of an animal feeding operation with more than 300 animal units that has or is proposing a category I discharge under s. NR 243.24, shall submit a complete application for a WPDES permit to the department.

(2) Any owner or operator of an animal feeding operation with 300 animal units or less shall submit a complete application for a WPDES permit if:

(a) The department conducts an onsite investigation pursuant to s. NR 243.24 and issues an NOD to the animal feeding operation for a category I discharge, and

(b) The operation fails to abate the category I discharge within the time period specified in the NOD.

(3) Applications shall, at a minimum, be submitted on form 3400-25, including a completed animal unit calculation worksheet. The department may require additional information as part of the permit application consistent with the requirements of subch. II.

**Note:** Applications can be obtained at regional offices of the department or the department's bureau of watershed management, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707.

(4) WPDES permits issued under this subchapter shall contain requirements designed to implement corrective measures to address unacceptable practices. Permits may also contain requirements from subch. II, including the requirement to develop a manure management plan and address milking center waste, when necessary to protect water quality.

**Note:** Pursuant to s. 283.31, Stats., and federal regulations, a point source discharge by an animal feeding operation is prohibited unless the discharge is covered by, and in compliance with, a WPDES permit.

**Note:** Pursuant to ch. NR 153, operations covered by a WPDES permit are no longer eligible for cost sharing under s. 281.65, Stats.

**History:** CR 00-034: cr. Register September 2002 No. 561, eff. 10-1-02.