

FINAL INTERNAL REVIEW DRAFT

**GUIDANCE MANUAL AND SAMPLE NPDES PERMIT
FOR
CONCENTRATED ANIMAL FEEDING OPERATIONS**

September 21, 2000

United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

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*Office of Wastewater Management
United States Environmental Protection Agency
Washington, DC 20460*

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1.0 INTRODUCTION

1.1 Background

The *Guidance Manual and Sample NPDES Permit for Concentrated Animal Feeding Operations* (the Guidance) provides information to Federal and State National Pollutant Discharge Elimination System (NPDES) permit writers on permitting requirements for concentrated animal feeding operations (CAFOs) under the current Federal regulations. The guidance replaces the *Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations* issued in 1995 and reflects changes that have taken place in the livestock industry. The existing regulations are expected to be revised in December 2002, at which time the U.S. Environmental Protection Agency (EPA) will develop a revised permit guidance based on the new regulations.

The guidance is consistent with the President's Clean Water Action Plan (CWAP), released in February 1998, and the final United States Department of Agriculture (USDA)-EPA Unified National Strategy for Animal Feeding Operations (AFO Strategy), released in March 1999. The AFO Strategy is a major component of the CWAP and reflects an extensive public outreach effort by USDA and EPA. The Strategy sets forth a framework of actions that USDA and EPA plan to take, under existing legal, regulatory authority and through voluntary incentive-based approaches, to minimize water quality and public health impacts from improperly managed animal manure and wastewater in a manner designed to preserve and enhance the long-term sustainability of livestock production. The AFO Strategy relies heavily on the stewardship ethic of producers. It is based on a national performance expectation that all AFO owners and operators should develop and implement technically sound, economically feasible, and site-specific comprehensive nutrient management plans (CNMPs) for properly managing the animal manure and wastewater produced at their facilities.

Voluntary and regulatory programs serve complementary roles. A variety of voluntary programs are available to provide technical and financial assistance for most of the approximately 376,000 AFOs in the United States. These programs help producers meet technical standards and remain economically viable. The regulatory program focuses permitting and enforcement priorities on high-risk operations, which represent about 5 percent of all AFOs (i.e., an estimated 15,000–20,000 operations) under the existing regulations.

The AFO Strategy describes a number of actions that USDA and EPA plan to take to meet the national goal of all AFO owners and operators taking actions to minimize water pollution from confinement facilities and the land application of manure and wastewater. The actions address:

- Building capacity for CNMP development and implementation;
- Accelerating voluntary, incentive-based programs;
- Implementing and improving the existing regulatory program for CAFOs;
- Coordinating research, technical innovation, compliance assistance, and technology transfer;
- Encouraging industry leadership;
- Coordinating data; and
- Measuring performance and accountability.

The AFO Strategy describes short- and long-term activities to implement and improve the existing regulatory program using a two-phase approach to permitting CAFOs. During Round I (2000-2005), EPA and State permitting authorities should use information contained in this guidance document to issue NPDES permits to CAFOs under the existing NPDES regulations, including permit conditions to ensure compliance with applicable water quality standards. During Round II, beginning in about 2005, EPA and States will reissue NPDES permits to CAFOs based on revisions to both the effluent limitation guideline for feedlots and the NPDES permitting regulations, as well as any other new information (e.g., new nutrient water quality criteria and standards). During both Round I and Round II, NPDES-authorized State permitting authorities will have flexibility to define specific permitting approaches within their existing programs. The executive summary for the AFO Strategy is included as Appendix A.

Many States have taken actions to address potential pollution and public health hazards from AFOs, and these programs may be broader in scope and/or include more stringent requirements (procedural and technical) for AFOs and CAFOs than those contained in the Federal regulations and discussed in this guidance. Where applicable, the permit writer should incorporate the State's more stringent CAFO requirements when developing an NPDES permit for a CAFO.

1.2 What Are the Round I Priorities for the NPDES Permitting Program?

While EPA and States retain broad authority to issue NPDES permits to CAFOs, during Round I of CAFO permitting (2000-2005), EPA and NPDES-authorized States will place the greatest emphasis on permitting CAFOs with significant manure production. In general, CAFOs with significant manure production are those with more than 1,000 animal units (AUs). EPA encourages States to issue NPDES general permits for these CAFOs by June 2001. Individual NPDES permits should generally be issued to certain CAFOs that meet other criteria described in

this guidance (see Section 4.2). This guidance and sample permit are intended to support this effort.

EPA and NPDES-authorized States should also issue NPDES permits to smaller CAFOs with unacceptable conditions or those with significant contributions to water quality impairment by no later than the end of 2002. Depending on State-specific circumstances, some States may be able to issue these NPDES permits to smaller CAFOs before 2002 and some States may need more time.

In implementing Round I NPDES permitting for CAFOs, EPA will work closely with USDA, State, and Tribal environmental and agricultural agencies and other key stakeholders to coordinate NPDES permit issuance for CAFOs with other AFO-related activities. Round I CAFO permitting should be coordinated with other regulatory programs as appropriate. Coordination with these programs is discussed in Chapter 5.0 of this guidance.

EPA is in the process of reviewing and revising the existing regulations related to CAFOs and expects to promulgate the new CAFO NPDES implementing regulations and effluent guidelines by the end of 2002. Any NPDES permits for CAFOs issued after the revised regulations are promulgated will need to reflect the revised regulations. Although this time frame represents the Agency's priorities in permitting CAFOs, any discharge from CAFOs without a permit continues to violate Section 301 of the Clean Water Act (CWA), even if the facility has not yet been targeted as a priority for permitting, and these discharges remain subject to Agency, State, and citizen enforcement action.

1.3 What Are the Purpose and Organization of this Guidance Manual?

This guidance manual is intended to provide guidance for EPA Regional and State permitting authorities as well as to animal feeding operations and the general public on how EPA intends to exercise its discretion in implementing Clean Water Act provisions and EPA regulations that concern animal feeding operations. The guidance is designed to implement national policy on these issues.

The CWA provisions and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decisionmakers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the statute and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation; EPA will, and States should, consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. This

guidance is a living document and may be revised periodically without public notice. EPA welcomes public comments on this document at any time and will consider those comments in any future revision of this guidance document.

This guidance focuses on permitting CAFOs during Round I and provides information that permitting authorities need to ensure that NPDES permits conform to the CWA and the current implementing regulations [40 CFR Part 122 (§122.23 and Appendix B) and Part 412]; the general information concerning CWA requirements that EPA will consider when reviewing the adequacy of State NPDES permits for CAFOs [40 CFR Part 123.44]; and the Agency's legal interpretation of certain existing statutory and regulatory authorities to regulate discharges from CAFOs. In addition, it is intended to clarify the circumstances under which producers should submit a Notice of Intent (NOI) to be covered under an NPDES general permit or apply for an NPDES individual permit.

The permit writer should have a working knowledge of how to develop NPDES permits. Permit writers should also be familiar with applicable State voluntary and regulatory programs, and how these programs relate to the Federal or State NPDES program. Appendix B lists a variety of potential sources that permit writers may wish to use as background for developing NPDES permits as well as increasing their understanding of agricultural practices related to AFOs.

The remainder of this guidance manual is divided into four chapters. Chapter 2.0 discusses the types of facilities covered by the existing NPDES regulations for CAFOs, and who is required to apply for an NPDES permit. Chapter 3.0 describes key elements the permit writers should include in NPDES permits for CAFOs, including (1) requirements to develop and implement CNMPs on enforceable schedules, including interim milestones, and (2) independently enforceable minimum standards, which the CNMP and implementation activities must achieve to protect water quality. Chapter 4.0 provides an explanation of general and individual NPDES permits for CAFOs, guidelines for determining when each type of permit should be used, and the process for developing and issuing each type. Chapter 5.0 discusses a variety of special issues and considerations related to developing and implementing NPDES permits for CAFOs. The manual also contains a number of appendices that are referenced throughout the text. Appendix F includes a sample permit for CAFOs. The sample permit is presented as a general permit along with a sample Notice of Intent (NOI) form and other related material, but it could also be readily adapted to be issued as an individual permit, where appropriate.

2.0 WHICH FACILITIES ARE CAFOS AND NEED AN NPDES PERMIT?

The NPDES program regulates the discharge of pollutants from point sources to waters of the United States. CAFOs are point sources, as defined by the CWA [Section 502(14)].

It is important for the permit writer to have a thorough understanding of the type of facility that EPA defines as a CAFO under the NPDES program. This section provides the permit writer with the information needed to determine whether a facility is a CAFO. It also explains who has to apply for an NPDES permit for CAFOs.

AFO Definition

[40 CFR Part 122.23(b)(1)]:

Lot or facility where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period;

AND

Where crops, vegetation forage growth, or post-harvest residues are not sustained over any portion of the lot or facility in the normal growing season.

2.1 What Is an Animal Feeding Operation (AFO)?

To be considered a CAFO, a facility must first meet the AFO definition. AFOs are enterprises where animals are kept and raised in confined situations. AFOs concentrate animals, feed, manure and urine, dead animals, and production operations on a small land area. Feed is brought to the animals rather than the animals only grazing or otherwise seeking feed in pastures, in fields, or on rangeland.

The first part of the regulatory definition for an AFO states that animals must be kept on the lot or facility for a minimum of 45 days in a 12-month

period. If an animal is on a facility for any portion of a day, it is considered to be on the facility for a full day. However, this does not mean that the same animals must remain on the lot for 45 days or more, only that some animals are fed or maintained¹ on the lot or facility for 45 days out of any 12-month period. The 45 days do not have to be consecutive, and the 12-month period does not have to correspond to the calendar year. For example, June 1 to the following May 31 would constitute a 12-month period.

¹EPA interprets “maintained” to mean that the animals are confined in an area where waste is generated and/or concentrated. Maintained can also mean that the animals in the confined area are watered, cleaned, groomed, or medicated. This interpretation gives the NPDES permitting authority the ability to regulate animal operations such as dairy farms, stockyards, and auction houses where animals may not be fed, but are confined temporarily. The important consideration in this interpretation is that waste is generated in an area where animals are concentrated.

The second part of the regulatory definition of an AFO is intended to distinguish facilities that have feedlots (confinement areas) from facilities that have only pasture or grazing land. Facilities that have feedlots with constructed floors or metal slots satisfy this element of the definition. If a facility maintains animals in an area without vegetation, including dirt lots, the facility also meets this part of the definition. Facilities that have dirt lots with nominal vegetative growth while animals are present or during months when animals are kept elsewhere are also considered by EPA to meet the second part of the AFO definition. Facilities that employ grazing and winter feeding of animals on pasture or rangeland do not normally fall within the AFO definition.

It also is important to recognize that an AFO owner or operator may also engage in other activities that result in point source discharges from the facility that may be subject to separate permitting under the NPDES program. Examples include discharges of noncontact cooling water, truck wash waters, filter backwash waters, and storm water discharge during construction. These other activities are not addressed in this guidance.

2.2 How Do You Determine the Size of an AFO?

Once a facility meets the AFO definition, its size, based on the total number of animals confined, is a fundamental factor in determining whether it is a CAFO. The animal livestock industry is diverse and includes a number of different types of animals that are kept and raised in confined situations. To define these various livestock sectors, the concept of an “animal unit”² was established in the EPA regulations [40 CFR Part 122, Appendix B]. An “animal unit” varies according to animal type; one animal is not necessarily equal to one animal unit (AU). Each livestock type, except poultry, is assigned a multiplication factor to help determine the total number of AUs at a given facility. Multiplication factors defined in the regulation are provided in Table 2–1.

²EPA and USDA both use the concept of “animal unit” however, it is important to recognize that there are differences in how the two agencies use the term with respect to swine and poultry.

Table 2–1. Multiplication Factors to Calculate Animal Units

Animal Type	Multiplication Factor
Beef Cattle (slaughter and feeder)	1.0
Mature Dairy Cattle	1.4
Swine (weighing more than 55 lb)	0.4
Sheep	0.1
Horses	2.0
Poultry	There are currently no animal unit conversions for poultry operations. However the NPDES Regulations for CAFOs [40 CFR Part 122, Appendix B] define the total number of animals (subject to waste handling technology restrictions: continuous overflow watering and liquid manure system) for specific poultry types that make these operations subject to regulation.

Source: 40 CFR Part 122, Appendix B.

These factors are also used to determine the total number of animal units at a facility with multiple animal types. Multiplication factors are applied to the total for each type of animal to determine the AU for that animal type. The AUs for each are then totaled for the operation. Figure 2–1 presents a hypothetical AFO with multiple animal types and the calculation to determine the total number of animals confined at the facility.

Figure 2–1. Animal Unit Determinations for AFOs with Multiple Animal Types

Situation:	An AFO is being evaluated to determine if it meets the animal unit criteria for being defined as a CAFO. The facility confines 200 horses, 300 sheep, and 500 beef cattle.		
Animal Unit Calculation:	200 horses x 2.0 =		400 AUs
	300 sheep x 0.1=		30 AUs
	<u>500 beef cattle x 1.0 =</u>		<u>500 AUs</u>
		Total	930 AUs

Under the NPDES regulations for CAFOs, two or more AFOs under common ownership are considered one operation if they adjoin each other, including facilities that are separated by a right-of-way or public road, or if they use a common waste disposal system [40 CFR Part 122.23(b)(2)]. For example, facilities are deemed to have a common waste disposal system if the wastes are commingled (e.g., stored in the same pond or lagoon or land applied on common fields) prior to or at the time of use or disposal. The combined number of AUs of these facilities is used to determine the size of the AFO. For example, many poultry feeding operations adjoin each other and often meet the definition of one facility.

2.3 Which AFOs Are CAFOs?

AFOs are CAFOs if they meet the regulatory definition [40 CFR Part 122, Appendix B] or if they have been designated on a case-by-case basis [40 CFR Part 122.23 (c)] by the NPDES permitting authority. This section provides the permit writer with additional guidance on how to determine whether an AFO meets the CAFO regulatory *definition* and whether an AFO can be *designated* as a CAFO.

2.3.1 Which AFOs Are Defined as CAFOs?

The NPDES regulations for CAFOs contain a specific definition used to determine whether an AFO is a CAFO.

The definition contains two categories of CAFOs based on the number of animals confined at the facility. All AFOs with more than 1,000 AUs are CAFOs [40 CFR Part 122, Appendix B(a)]. AFOs with 301 to 1,000 AUs are defined as CAFOs only if, in addition to the number of animals confined, they also meet one of the specific criteria addressing the method of discharge (see text box on the right) [40 CFR Part 122, Appendix B(b)]. AFOs with 300 AUs or fewer are not defined as CAFOs under the current regulations and are considered CAFOs only if they are designated by the permitting authority (see Section 2.3.5). Where States have adopted regulatory definitions for CAFOs that are more stringent than EPA's regulations, permit writers should issue NPDES permits consistent with those State requirements [CWA § 510, 40 CFR Part 123.25].

AFOs Are Defined as CAFOs if:

- More than 1,000 AUs are confined at the facility [40 CFR Part 122, Appendix B (a)];
- or*
- From 301 to 1,000 AUs are confined at the facility and:
 - Pollutants are discharged into waters of the U.S. through a man-made ditch, flushing system, or other similar man-made device; or
 - Pollutants are discharged directly into waters of the U.S. that originate outside of and pass over, across, or through the facility or come into direct contact with the confined animals.

2.3.2 All AFOs With More Than 1,000 Animal Units Are Defined As CAFOs

For individual animal types, the NPDES regulations for CAFOs contain the number of animals required for the facility to be defined as a CAFO. If the number of AUs for any one animal type exceeds the corresponding number indicated in Table 2–2 [40 CFR Part 122, Appendix B(a)] or if the cumulative number of animals exceeds 1,000 AUs, the facility is defined as a CAFO.

Table 2–2. Threshold Number of Animals by Animal Type to Meet the Definition of a CAFO (>1,000 AUs)

Animal Type	Number of Animal Units
Beef Cattle	1,000 slaughter and feeder cattle
Dairy Cattle	700 mature dairy cattle (whether milked or dry cows)
Swine	2,500 swine (each weighing over 25 kg—approximately 55 lb)
Horses	500 horses
Sheep	10,000 sheep or lambs
Turkeys	55,000 turkeys
Chickens	100,000 laying hens or broilers (if continuous overflow watering); 30,000 laying hens or broilers (if liquid manure handling system)
Ducks	5,000 ducks
Animal Units	1000 animal units as defined in 40 CFR Part 122, Appendix B

Source: 40 CFR Part 122, Appendix B(a).

2.3.3 AFOs With 301 to 1,000 Animal Units *May Be* Defined as CAFOs

AFOs with 301 to 1,000 AUs are defined as CAFOs only if, in addition to the number of animals confined, they *also* meet one of the specific criteria governing method of discharge. If the number of AUs for any one animal type exceeds the corresponding number indicated in Table 2–3, or if the cumulative number of animal types exceeds 300 AUs, **and** the facility meets the method of discharge criteria with respect to the feedlot and associated manure and wastewater storage and handling activities, the facility is defined as a CAFO.

The facility meets the “method of discharge” criteria if pollutants are discharged in one of the following ways [40 CFR Part 122, Appendix B(b)]:

- Into waters of the United States through a man-made ditch, flushing system, or other similar man-made device or
- Directly into waters of the United States that originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the confined animals.

Although the NPDES program generally covers discharges to surface waters, it also applies to discharges or seepage to groundwaters where there is a direct hydrologic connection between the groundwater and surface waters. In these cases, NPDES coverage of the discharges to groundwaters is necessary to prevent or reduce the addition of pollutants to the surface waters.

Table 2–3. Threshold Number of Animals by Animal Type to Meet the Definition of a CAFO (301-1000 AUs)

Animal Type	Number of Animal Units
Beef Cattle	300 slaughter and feeder cattle
Dairy Cattle	200 mature dairy cattle (whether milked or dry cows)
Swine	750 swine (over 25 kg—approximately 55 lb)
Sheep	3,000 sheep or lambs
Horses	150 horses
Chickens	30,000 laying hens or broilers (if continuous overflow watering); 9,000 laying hens or broilers (if liquid manure handling system)
Turkeys	16,500 turkeys
Ducks	1,500 ducks
Animal Units	300 as defined in 40 CFR Part 122, Appendix B

Source: 40 CFR Part 122, Appendix B(b).

The term “man-made” means constructed by man and used for the purpose of transporting wastes [40 CFR Part 122, Appendix B]. Man-made devices include pipes and man-made ditches and channels. If human action was involved in creating the device, it is man-made even if natural materials were used to form the device. A man-made channel or ditch that was not created specifically to carry animal waste but nonetheless does so during storm events is a man-made device. However, conservation practices developed and implemented as part of a CNMP (or other resource management system consistent with Natural Resources Conservation Service (NRCS) conservation practice standards) are not considered to create man-made devices where they are not used for the purpose of transporting waste to waters of the United States.

In Round I of NPDES permitting for CAFOs, EPA and NPDES-authorized States should issue NPDES permits for those CAFOs with from 301 to 1,000 AUs that have unacceptable conditions (i.e., those that meet one of the method of discharge criteria described above) by 2002, whenever possible. Some NPDES permitting authorities may be able to issue these permits before 2002, and other NPDES permitting authorities may need more time.

EPA expects that many AFOs of this size may be able to avoid permitting in Round I (absent designation) (see Section 2.3.3) by changing their operation so that they no longer meet one of the methods of discharge criteria that cause them to fall within the CAFO regulatory definition. Where this is the case, States should encourage these operations to adopt CNMPs voluntarily so that they do not become a priority for designation and NPDES permitting in the future.

2.3.4 Which Poultry Operations Are Defined as CAFOs?

Poultry operations are defined as CAFOs only if they meet the size thresholds in the regulation and use the watering or waste handling systems identified in Tables 2–2 and 2-3. However, consistent with its earlier interpretations³, EPA believes that poultry operations that remove dry litter waste from pens and stack it in areas exposed to rainfall or adjacent to a watercourse may be considered to have established a crude liquid manure system. Therefore, a poultry operation that engages in improper land application activities or stacks waste in this manner and confines the number of animals in Tables 2–2 and 2-3 may be a CAFO and subject to the NPDES program (see Section 2.4).

Egg washing is another example of a practice that should be considered to be a liquid manure system. As eggs are conveyed from the cages to the processing/packaging facility, the poultry manure that has been deposited on the eggs is removed and the resulting wastewater is often land applied in liquid form.

2.3.5 Which AFOs Can Be Designated as CAFOs?

The NPDES regulations for CAFOs [40 CFR Part 122.23(c)] set forth the process for the NPDES permitting authority to, on a case-by-case basis, designate any AFO as a CAFO, after determining that the facility is a significant contributor of pollution to waters of the U.S. However, no AFO with fewer than 300 AUs may be designated a CAFO unless it also meets the method of discharge criteria outlined in 40 CFR Part 122.23(c) and described in Section 2.3.3 above. AFOs that are designated as CAFOs are not eligible for the 25-year 24-hour rainfall event exemption in 40 CFR Part 122, Appendix B (see Section 2.3.6) because that exemption applies by its terms only to an operation that would otherwise be a CAFO under the definition in Appendix B.

When designating an AFO as a CAFO, an NPDES permit application may not be required until the NPDES permitting authority has conducted an on-site inspection of the operation and determined that the facility is a significant contributor of pollution to waters of the U.S. The inspection serves two primary objectives: (1) to confirm that the facility meets the AFO definition; and (2) to collect information related to the CAFO designation factors in the regulations. During Round I, in deciding whether to designate an AFO as a CAFO, NPDES permitting authorities should place priority on designating facilities where information from the inspection and other sources suggests that an AFO or collection of AFOs is a significant contributor to water quality impairment.

The AFO Strategy describes a one-time “good faith” incentive that should be considered when making the decision whether to designate an AFO as a CAFO. Many AFOs may be taking

³ EPA *Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations*, 1995 (page 6, footnote).

early voluntary actions in good faith to properly manage manure and wastewater. In some cases, an AFO that is voluntarily conducting proper manure and/or wastewater management practices may have a discharge that could lead the NPDES permitting authority to consider designating it as a CAFO. In these cases, the NPDES permitting authority should consider providing a one-time opportunity for these AFOs to address the cause of the discharge through voluntary actions before designating these facilities as CAFOs.

What Is the Procedure for Making a Case-by-Case Designation?

An AFO *cannot* be designated a CAFO on a case-by-case basis until the NPDES permitting authority has conducted an on-site inspection of the facility and determined that the facility is a significant contributor of pollution. The designation is based on the factors listed in 40 CFR Part 122.23(c) and reiterated in Table 2-4. This determination may be based on visual observations, as well as water quality monitoring. Table 2-4 also identifies example case-by-case designation factors for the inspection focus related to each factor.

Following the on-site inspection for designation, the NPDES permitting authority should prepare a brief report that (1) identifies findings and any follow-up actions, (2) determines whether the facility should be designated as a CAFO, and (3) documents the reasons for that determination. Regardless of the outcome, a letter should be prepared and sent to inform the facility that it (1) has been designated a CAFO and must obtain an NPDES permit or (2) has not been designated as a CAFO at this time. In those cases where a facility has not been designated as a CAFO but the NPDES permitting authority has identified areas of concern, these areas should be noted in the letter. The letter should state that if these concerns are not corrected, the facility may be designated in the future. It should also include a date for a follow-up inspection to determine whether the concerns have been adequately addressed. Samples of letters that would be used at the conclusion of a designation inspection are included in Appendix D.

Table 2–4. Example Factors for Case-by-Case CAFO Designation

Designation Factor [40 CFR Part 122.23(c)]	Example Factors for Inspection Focus
<input type="checkbox"/> Size of the Operation and Amount of Wastes Reaching Waters of the United States	<ul style="list-style-type: none"> • Number of animals • Type of feedlot surface • Feedlot design capacity • Waste handling/storage system design capacity
<input type="checkbox"/> Location of the Operation Relative to Waters of the United States	<ul style="list-style-type: none"> • Location of water bodies • Location of floodplain • Proximity to surface waters • Depth to groundwater, direct hydrologic connection to surface water • Located in an impaired watershed
<input type="checkbox"/> Means of Conveyance of Animal Wastes and Process Wastewaters into Waters of the United States	<ul style="list-style-type: none"> • Identify existing or potential man-made (includes natural and artificial materials) structures that may convey waste • Direct contact between animals and surface water
<input type="checkbox"/> Slope, Vegetation, Rainfall, and Other Factors Affecting the Likelihood or Frequency of Discharge of Animal Wastes and Process Wastewaters	<ul style="list-style-type: none"> • Slope of feedlot and surrounding land • Type of feedlot (concrete, soil, etc.) • Climate (e.g., arid or wet) • Type and condition of soils • Drainage controls • Storage structures • Amount of rainfall • Volume and quantity of runoff • Buffers
<input type="checkbox"/> Other Relevant Factors	<ul style="list-style-type: none"> • Waste handling and storage • History of non-compliance

2.3.6 Which AFOs Are Eligible for the 25-Year, 24-Hour Rainfall Event Exemption?

The NPDES regulations for CAFOs [40 CFR Part 122, Appendix B] contain an exemption for any AFO from being *defined* as a CAFO if it discharges only in the event of a 25-year, 24-hour storm event. Facilities that are CAFOs by virtue of designation are not eligible for this exemption.⁴ However, to be eligible for the exemption, the facility must be designed, constructed, and operated to prevent discharges during dry weather and due to storms up to and including the 25-year, 24-hour storm. The capacity of any containment or storage structures for manure and/or wastewater should be based on the amount of process wastewater generated by the facility and the volume of the expected runoff from a 25-year, 24-hour storm for all the contributing drainage areas (including open lot surfaces, roofed areas, and areas between lots and

⁴Section 122.23(b)(3) states that an AFO may become a CAFO *either* by meeting the definitions in Appendix B or by designation under §122.23(c). The 25 year, 24-hour storm exemption appears within Appendix B itself and applies by its terms only to an operation that would otherwise be a CAFO under the definitions of Appendix B. It does not exempt facilities that are CAFOs by designation.

retention structures). Facilities that can demonstrate that they do not discharge from the feedlot but who nevertheless may have discharges due to improper land application of manure and/or wastewater would not qualify for this exemption (see Section 2.4).

2.4 Who Must Apply for an NPDES Permit for CAFOs?

Under EPA regulations at 40 CFR Part 122.21(a), any person who discharges or proposes to discharge pollutants to the waters of the United States from a point source is required to apply for an NPDES permit. CAFOs are point sources by definition [40 CFR Part 122.2]. Thus, any CAFO that “discharges or proposes to discharge” pollutants must apply for a permit.

EPA believes that all or virtually all large CAFOs (more than 1000 AUs) fit the language of this regulation and therefore must apply for a permit. Large CAFOs (more than 1000 AUs) pose a risk of discharge in a number of different ways. For example, a discharge of pollutants to surface waters can occur through a spill from the waste handling facilities or a breach or overflow of those facilities or through runoff from the feedlot area. A discharge can also occur through runoff of pollutants from improper application of manure and associated wastewaters to the land or through seepage to groundwaters where there is a direct hydrologic connection between groundwater and surface water. Given the large volume of manure these facilities generate and the variety of ways they may discharge, and based on EPA’s and the States’ own experience in the field, EPA believes that all or virtually all large CAFOs have had a discharge in the past, have a current discharge, or have a reasonable potential to discharge in the future. A CAFO that meets any one of these three criteria would be a facility that “discharges or proposes to discharge” pollutants and would therefore need to apply for a permit.

Where a large CAFO (more than 1000 AUs) has not discharged in the past, does not now discharge pollutants, and does not expect to discharge pollutants in the future, the owner or operator of that facility should apply for a permit and should demonstrate during the NPDES permit application process that it is, in fact, a “no discharge” facility. For example, a large CAFO that uses advanced technologies to store and handle waste and does not engage in land application of its CAFO-generated manure and/or wastewater might be able to make such a demonstration. EPA anticipates that very few large CAFOs will be able to successfully demonstrate that they do not discharge pollutants and do not have a reasonable potential to discharge in the future. EPA strongly encourages NPDES permitting authorities to closely scrutinize claims by these facilities that they do not have a past or present discharge or potential for a future discharge. The NPDES permitting authority should issue an NPDES permit unless it determines that the facilities do not now discharge pollutants, have never discharged pollutants, and do not have a potential to discharge pollutants in the future.

2.4.1 Duty to Apply May be Based on Land Application Discharge

A CAFO owner or operator's obligation to apply for an NPDES permit is based not only on discharges from the feedlot area but also on discharges from the land application areas under the control of the CAFO operator. More specifically, discharges of CAFO-generated manure and/or wastewater from such land application areas should be viewed as discharges from the CAFO itself. Otherwise, a CAFO could simply move its wastes outside the area of confinement, and improperly apply those wastes to its crop fields, which would render the CWA prohibition on unpermitted discharges of pollutants from CAFOs meaningless. Of course, this analysis applies only where the owner or operator has improperly applied the wastes (e.g., in excessive amounts, at inappropriate times, etc.) to the land application areas (as discussed in Section 3.3.3 below). Where the CAFO wastes have been applied according to proper agricultural practices, discharges of those wastes from land application areas via stormwater are exempt from point source requirements because they qualify for the CWA exemption for agricultural stormwater discharges [§502(14)].

Moreover, the pipes and other manure-spreading equipment that convey CAFO manure and/or wastewater to land application areas under the control of the CAFO operator are an integral part of the CAFO. This equipment should be considered part of the CAFO, and discharges from this equipment that reach the waters of the United States should be considered discharges from the CAFO for this reason as well. In recent litigation brought by citizens against a dairy farm, a federal court reached a similar conclusion; see *CARE v. Sid Koopman Dairy, et al.*, (No. CY-98-3003-EFS, U.S. Dist. Ct., E.D. Wash., May 17, 1999). Again, the agricultural stormwater exemption should be taken into account, where appropriate, as discussed above.

2.4.2 The Relationship Between Growers and Producers and the Duty to Apply

Corporate entities that exercise substantial operational control over a CAFO are considered "operators" of the CAFO and should be held jointly responsible under the CWA for complying with NPDES permits.⁵ In these cases (e.g., where operational control is shared by more than one entity), two (or more) entities may be responsible for adding pollutants to the waters, and the permitting authority should require both parties to be permitted because both are responsible for the addition of pollutants to the waters.

The decision of whether a corporate entity exercises substantial operational control of the facility should be made on a case-by-case basis by the NPDES permitting authority. In the event that a corporate entity exercises substantial operational control over one or more CAFOs, the

⁵ "Trends in farm organization and operation include...vertical integration as farmers enter contracts with processors or integrators. Under these contracts, which can vary widely, producers [may] raise the livestock while integrators actually own the animals, assume the marketing risks, and may provide medicine, feed, and technical expertise, as well." *Animal Waste Management and the Environment: Background for Current Issues*, Congressional Research Service Report for Congress, Updated May 12, 1998, p. 6.

permit authority has the discretion to issue a permit to the corporate entity or to the individual CAFOs or both. In the case where a permit is issued to the corporate entity, one permit may contain site-specific conditions that apply appropriate NPDES requirements to one or more CAFOs.

The following are examples of factors that should be considered relevant when determining whether a corporate entity exercises substantial operational control over a CAFO: (1) whether the corporate entity directs the activity of persons working at the CAFO either through a contract or direct supervision of, or on-site participation in, activities at the facility; (2) whether the corporate entity owns the animals; or (3) whether the corporate entity specifies how the animals are grown, fed, or medicated. The permitting authority may identify other factors that may also be used to determine substantial control over the operations of a specific CAFO. The greater the degree to which one or more of these factors is present, the more likely it is that the corporate entity is exercising substantial operational control, and, thus, the more important it is that the corporate entity is permitted. EPA will be available to assist NPDES permitting authorities in making case-specific decisions regarding whether a corporate entity is exerting control such that it should be permitted.

Regardless of whether corporate entities are permitted, the NPDES permitting authority should encourage them to establish a corporate environmental program for their contract growers. Such a program could assist the contract growers by developing CNMPs (see Section 3.1), providing environmental audits, and encouraging sound environmental practices, and it could be established as a condition of the contract with the growers.

3.0 WHAT ARE THE KEY ELEMENTS OF AN NPDES PERMIT FOR A CAFO?

This section describes the key elements that should be included in all NPDES permits for CAFOs. NPDES permits for CAFOs should have the same basic elements as other NPDES permits, which include effluent limitations; monitoring, record keeping, and reporting requirements; and special conditions, as appropriate (see Table 3-1 for a summary of key NPDES permit elements). For additional details on the elements of an NPDES permit, refer to the *U.S. EPA NPDES Permit Writers Manual* (EPA-833-B-96-003).

In addition to the effluent limitations (see Section 3.2), the principal substantive pollution control conditions that should be included in the NPDES permits issued to CAFOs are (1) the requirement for the permittee to develop and fully implement a CNMP on an enforceable schedule, including interim milestones, and (2) independently enforceable minimum standards, which the CNMP and implementation activities must achieve to protect water quality. This section describes the contents of a CNMP and its role in protecting water quality, the relationship between the CNMP and permit requirements, and other permit requirements for CAFOs that may be necessary to achieve the objectives of the CWA. Appendix F contains a sample general NPDES permit for CAFOs, which is intended to provide additional guidance to permitting authorities regarding the key elements that should be included in NPDES permits for CAFOs.

3.1 Comprehensive Nutrient Management Plans (CNMPs)

In the AFO Strategy, USDA and EPA articulated a joint goal for AFO owners and operators to take actions to minimize water pollution from confinement facilities and land application of manure and/or wastewater, as well as an expectation that all AFOs should develop and implement CNMPs to accomplish this goal. In general terms, a CNMP identifies actions or priorities for owners and operators to follow to meet clearly defined nutrient management goals at an animal feeding operation. As described later in this section, all NPDES permits for CAFOs should include, as special conditions, a requirement to develop and implement a CNMP on a schedule along with a requirement for the CNMP to achieve minimum standards to protect water quality that have been set forth independently and directly in the permit (see Section 3.3.).

In the near future (summer 2000), USDA is expected to publish its *Technical Guidance for Developing Comprehensive Nutrient Management Plans*.⁶ This guidance will provide the template for developing site-specific CNMPs designed to protect water quality from pollution

⁶ USDA issued its *Draft Technical Guidance for Developing CNMPs* on December 9, 1999. USDA's final guidance is expected to be released in the Summer 2000. Until the final guidance is available, permit authorities should use the draft guidance as a reference in conjunction with this guidance manual, recognizing that the technical guidance is a draft document and is subject to change.

Table 3-1 - Elements of an NPDES Permit

Element	Description
Cover Page	Serves as the legal notice of the applicability of the permit, provides the authority under which it is issued, and contains appropriate dates and signature(s).
Effluent Limitations	Serves as the primary mechanism for controlling discharges of pollutants to receiving waters (e.g., the specific narrative or numeric limitations applied to the facility and the point of application of these limits).
Monitoring and Reporting Requirements	Identifies all of the specific conditions related to the types of monitoring to be performed, the frequencies for collecting samples or data, and how to record, maintain, and transmit the data and information to the permitting authority. This information allows the NPDES permitting authority to determine compliance with permit requirements. Section 3.4 of this guidance provides suggested monitoring and reporting requirements for NPDES permits for CAFOs.
Record Keeping Requirements	Specifies the types of records to be kept on-site at the permitted facility (e.g., inspection and monitoring records; waste and soil sampling results; time, amount, and duration of land application activities; precipitation records; records of recipients of waste intended for application on land outside the operational control of the CAFO facility, etc.).
Special Conditions (including CNMP and minimum standards)	Used primarily to supplement effluent limitations and ensure compliance with the CWA. For NPDES permits issued to CAFOs, special conditions should include (1) the requirement to develop and fully implement a CNMP on a schedule, including interim milestones, and (2) minimum standards, which the CNMP and implementation activities must achieve to protect water quality. NPDES permits for CAFOs may include other special conditions such as those described in Section 3.3.
Standard Conditions	Preestablished conditions that apply to all NPDES permits.

impacts from animal confinement facilities and associated land application activities. USDA’s proposed guidance defines a CNMP as a group of conservation practices and management activities which, when combined into a system, will help to ensure that both production and natural resource goals are achieved. The guidance further describes CNMPs as plans that:

- Incorporate practices designed to promote use of animal manure and organic by-products as a beneficial resource;
- Address natural resource concerns associated with nutrient and organic by-products and the adverse impacts on water quality; and

- Combine management activities and conservation practices into a system that, when implemented, will minimize the adverse impacts of animal feeding operations on water quality.

Consistent with the AFO Strategy, USDA's draft guidance sets forth a set of essential elements that should be considered in developing a CNMP. These elements include the following areas of activity: animal outputs (e.g., manure and wastewater handling, storage, treatment, and transfer); site management (e.g., evaluation and treatment of sites proposed for land application); land application of manure and wastewater; record keeping (e.g., records of CNMP implementation); and other utilization activities (e.g., alternative uses of manure in cases where the potential for environmentally sound land application is limited at the point where it is generated). CNMPs should address these essential elements, as necessary and appropriate, and should promote implementation of new, improved technologies, sustainable agricultural systems, and new, improved approaches to proper manure and nutrient management.

EPA and USDA recognize that CNMPs will be site-specific and that the specific management measures in each CNMP may vary depending on the conditions at each facility. In particular, USDA and EPA recognize that, for certain impacted watersheds or water bodies, special management activities or conservation practices may be necessary to help the landowner/operator meet specific local, Tribal, State, or Federal regulations, including water quality standards. The primary technical reference for developing CNMPs is the Natural Resources Conservation Service (NRCS) *Field Office Technical Guide* (FOTG). This guide contains technical information on utilization and conservation of soil, water, air, plant, and animal resources. The FOTG used in an individual NRCS field office contains local information. Appendix B of this guidance contains references to support the development of CNMPs.

Although the content of each CNMP may vary, Table 3-2 contains a brief description of the typical elements of a CNMP, which are described in the AFO Strategy and should be addressed, as appropriate and necessary, based on the specific characteristics of the operation and the site.

Table 3-2. Components of a Comprehensive Nutrient Management Plan (CNMP)

<p>CNMP Component Number 1: Animal Outputs: Manure Handling and Storage: Manure needs to be handled and stored properly to prevent water pollution from operations. Manure and wastewater handling and storage practices should also consider odor and other environmental and public health concerns. Handling and storage considerations should include:</p> <ul style="list-style-type: none"> • Divert Clean Water: Siting and management practices should divert clean water from contact with feedlots and holding pens; animal manure; or manure storage systems. Clean water can include rainfall falling on roofs of facilities, runoff from adjacent lands, or other sources. • Prevent Leakage: Construction and maintenance of buildings, collection systems, conveyance systems and permanent and temporary storage facilities should prevent leakage of organic matter, nutrients, and pathogens to ground or surface water. • Provide Adequate Storage: Liquid manure storage systems should safely store the quantity and contents of animal manure and wastewater produced, contaminated runoff from the facility, and rainfall. Dry manure, such as that produced in certain poultry and beef operations, should be stored in production buildings or storage facilities or otherwise stored in such a way as to prevent polluted runoff. The location of manure storage systems should consider proximity to water bodies, floodplains, and other environmentally sensitive areas. • Manure Treatments: Manure should be handled and treated to reduce the loss of nutrients to the atmosphere during storage; to make the material a more stable fertilizer when land-applied; and reduce pathogens, vector attraction, and odors, as appropriate. • Management of Dead Animals: Dead animals should be disposed of in a way that does not adversely affect ground or surface water or create public health concerns. Composting, rendering, and other practices are common methods used to dispose of dead animals.
<p>CNMP Component Number 2: Land Application of Manure and Wastewater: Land application is the most common, and usually most desirable method of utilizing manure and wastewater because of the value of the nutrients and organic matter. Land application should be planned to ensure that the proper amount of nutrients are applied in a way that does not cause harm to the environment or to public health. Land application in accordance with the CNMP should minimize water quality and public health risk. Considerations for appropriate land application should include:</p> <ul style="list-style-type: none"> • Nutrient Balance: The primary purpose of nutrient management is to achieve the level of nutrients (e.g., nitrogen and phosphorus) required to grow the planned crop by balancing the nutrients that are already in the soil and from other sources with those that will be applied in manure, biosolids, and commercial fertilizer. At a minimum, nutrient management should prevent the application of nutrients at rates that will exceed the capacity of the soil and the planned crops to assimilate nutrients and prevent pollution. Soils, manure, and wastewater should be tested to determine nutrient content. • Timing and Methods of Application: Care must be taken when land-applying manure and wastewater to prevent it from entering streams, other water bodies, or environmentally sensitive areas. The timing and methods of application should minimize the loss of nutrients to ground or surface water and the loss of nitrogen to the atmosphere. Manure and wastewater application equipment should be calibrated to ensure that the quantity of material being applied is what is planned.
<p>CNMP Component Number 3: Site Management: Tillage, crop residue management, grazing management, and other conservation practices should be utilized to minimize movement to ground and surface water of soil, organic material, nutrients, and pathogens, from lands where manure and wastewater are applied. Forest riparian buffers, filter strips, field borders, contour buffer strips, and other conservation practices should be installed to intercept, store, and utilize nutrients or other pollutants that may migrate from the feedlot area or fields on which manure and wastewater are applied.</p>
<p>CNMP Component Number 4: Record Keeping: Operators should maintain records that indicate the quantity of manure produced and how the manure was utilized, including where, when, and the amount of nutrients applied. Soil and manure testing should be incorporated into the record keeping system. Records should be kept when the manure leaves the operation.</p>

Table 3-2. (Continued)

CNMP Component Number 5: Other Utilization Options:* Where the potential for environmentally sound application is limited, alternative uses of manure, such as the sale of manure to other farmers, centralized treatment, composting and sale of compost to other users, and using manure for power generation may also be appropriate. All manure utilization options should be designed and implemented to reduce the risk to the environment and public health and must comply with all Federal, State, Tribal, and local laws.

* On May 24, 1999, USDA-NRCS released the Policy for Nutrient Management and the revision to the conservation practice standard for Nutrient Management (Code 590). NRCS's directive and supporting technical guide establishes policy for nutrient management and sets forth guidance to NRCS personnel who provide nutrient management technical assistance, and for the revision of the NRCS nutrient management conservation practice standard. These two documents will provide the framework for all nutrient management plans developed by NRCS for the agricultural community, which will be tailored by State Conservationists within a two-year period. As a result of the new policy, some producers may determine that they do not have sufficient land available to spread manure at appropriate rates for nitrogen and phosphorus and so may decide to pursue off-farm utilization options. See Appendix H for the Policy for Nutrient Management and the revised Technical Standard.

Source: USDA/EPA *Unified National Strategy for Animal Feeding Operations*, March 9, 1999, pages 8-11.

3.1.1 What Technical Assistance and Guidance Are Available for Developing a CNMP?

USDA's forthcoming *Technical Guidance for Developing Comprehensive Nutrient Management Plans* (see Section 3.1) provides the template for developing site-specific CNMPs. CAFO owners and operators should seek technical assistance for developing CNMPs from appropriate Federal agencies, such as the NRCS, as well as State and Tribal agricultural and conservation agency staff, Cooperative Extension Service agents and specialists, Soil and Water Conservation Districts, and Land Grant Universities. Assistance may also be available from integrators, industry associations, and private consultants who are certified as capable of developing CNMPs. In addition to the help of these experts, a number of computer-based tools are being developed to facilitate the CNMP development and implementation process. (See Appendix B.)

3.1.2 What is the Role of Certified Specialists in Developing CNMPs?

Although CAFO owners and operators are ultimately responsible for developing and properly implementing CNMPs, NPDES permits for CAFOs should require that CNMPs be developed, reviewed, and modified, as necessary, by a certified specialist. A certified specialist is a person who has a demonstrated capability to develop CNMPs in accordance with applicable USDA and State standards and is certified by USDA or a USDA-sanctioned organization. Certified specialists include qualified persons who have received certifications through a State or local agency, personnel from NRCS, and certification programs recognized as third party vendors of technical assistance, or other programs recognized by States. In addition, USDA will develop agreements with third-party vendors similar to the 1998 agreement with the Certified Crop Advisors (CCAs) and consistent with NRCS standards and specifications (or State standards if

more restrictive).⁷ CCAs will provide technical assistance to producers in nutrient management, pest management, and residue management. The purpose of using certified specialists is to ensure that CNMPs are developed, reviewed, and approved by persons who have the appropriate knowledge and expertise to ensure that plans fully and effectively address the five core components of CNMPs, as appropriate and necessary to meet the NPDES permit conditions, and that plans are appropriately tailored to the site-specific needs and conditions of the CAFO. Due to the multidisciplinary nature of CNMPs, it is likely that a range of expertise will be needed to develop an effective CNMP (e.g., professional engineer, crop specialist, soil specialist).

EPA recognizes that some States already have certification programs in place for nutrient management planning, which can provide an excellent foundation for CNMP certification programs. Other States may not have or will not be able to establish an appropriate certification program prior to development of CNMPs required by the permit. In these situations, EPA urges permitting authorities to establish a more rigorous review of a greater sample of CNMPs to ensure that an appropriate degree of quality and comprehensiveness is attained.

3.1.3 Periodic Review and Update of CNMPs

Permittees should be required to review their CNMPs annually to assess their adequacy in protecting water quality. At a minimum, NPDES permits should require permittees to update their CNMPs (1) when they make a substantive change in how they manage their operations, including the location, method, timing, or frequency of land application, and/or (2) when a discharge occurs in violation of their NPDES permit. Depending upon the scope and magnitude of the change that a permittee makes to the operation, the technical assistance of a certified specialist may be needed for the review and modification of the CNMP. In a watershed that is impaired due to excessive nutrients (including ammonia) or pathogen indicators, inadequate dissolved oxygen, or other causes that may be attributable to manure and/or wastewater, CNMPs should also be reviewed as part of the TMDL process and may need to be updated (see Section 5.1)

3.1.4 Availability of CNMPs to the Public

EPA recommends that the permitting authority ensure that NPDES permits contain requirements that the permittee maintain the CNMP on-site and make the CNMP available to the permitting authority during any on-site inspection of the CAFO and on request. The permitting authority should provide copies of the CNMP to the public when requested, with the exception of information considered protected by established procedures for restricting access to confidential business information (CBI). Where States fail to do so, EPA will ensure the availability of the

⁷ Third party vendor certification programs may include, but are not limited to, (1) American Society of Agronomy's certification programs, including Certified Crop Advisors (CCA) and Certified Professional Agronomists (CPAg), Certified Professional Crop Scientists (CPCSc), and Certified Professional Soil Scientists (CPSSc); (2) Land Grant University certification programs; (3) National Alliance of Independent Crop Consultants (NAICC); and 4) State certification programs.

appropriate portions of the CNMP to the public consistent with established procedures for public access and CBI protection. EPA does not believe that information in CNMPs related to land application rates is likely to qualify as CBI.

3.2 Effluent Limitations

Section 301 of the CWA prohibits the discharge of pollutants from a point source into waters of the United States except in accordance with an NPDES permit. The NPDES permit regulations at 40 CFR Part 122.44 implement Section 301 by requiring that each NPDES permit issued under CWA Section 402 include conditions that meet technology-based effluent limitations and standards, as well as water quality-based standards and State requirements.

3.2.1 Technology-based Effluent Limitations

The Effluent Limitation Guidelines (ELG) regulations for feedlots [40 CFR Part 412] establish the technology-based effluent limitations that are to be applied in NPDES permits for large CAFOs (those with more than 1,000 AUs) (Table 3–3). Under the ELGs, permits for large CAFOs are to prohibit discharges of process wastewater pollutants to waters of the United States from the CAFO, except when rainfall events, either chronic or catastrophic, cause an overflow of process wastewater from a facility designed, constructed, and operated to contain all process-generated wastewater plus the runoff from a 25-year, 24-hour rainfall event for the location of the CAFO [40 CFR Part 412.13(b)]. Discharges from secondary containment structures are also prohibited in less than a 25-year, 24-hour storm event. Feedlots include the confinement area and the storage and handling areas necessary to support the operation (e.g., waste storage areas).

For smaller CAFOs (fewer than 1000 AUs), EPA expects that in many cases permit writers will find that it is appropriate to develop best professional judgement (BPJ) effluent limitations for smaller CAFOs that are the same as the limitations for ELG. Permit writers may also establish different technology-based limitations based on BPJ.

Table 3–3. Facilities Covered by Subpart A of the Feedlots Point Source Category [40 CFR Part 412]

Animal Type	Type of Operation Subcategory	Number of Animal Units
Beef Cattle	Open lots	1,000 slaughter and feeder cattle
	Housed lots	
Dairy Cattle	Stall barn (with milk room)	700 mature dairy cattle (whether milked or dry cows)
	Free stall barn (with milking center)	
	Cowyards (with milking center)	
Swine	Open dirt lot or pasture lot	2,500 swine weighing over 55 pounds
	Housed, slotted floor	
	Solid concrete floor, open or housed lot	
Sheep	Open lots	10,000 sheep
	Housed lots	
Horses	Stables (race tracks)	500 horses
Chickens	Broilers, housed	<ul style="list-style-type: none"> ▶ 100,000 laying hens or broilers (if unlimited continuous flow watering system); ▶ 30,000 laying hens or broilers (if liquid manure system)
	Layers (egg production), housed	
	Layer breeding or replacement stock	
Turkeys	Open lots	55,000 turkeys
	Housed	

3.2.2 Water Quality-based Effluent Limitations

Where technology-based effluent limitations are not sufficient to meet water quality standards, the permit writer must develop more stringent water quality-based effluent requirements on a site-specific basis. For example, the ELG for feedlots may not be sufficient in all cases to meet water quality standards because the ELG allows a discharge during chronic rainfall events at a facility designed and operated to contain a 25-year, 24-hour storm. These discharges potentially contain very high pollutant loadings, which could cause a violation of water quality standards. In these cases, permitting authorities should use a water quality-based effluent limitation that will have the effect of prohibiting discharges except during catastrophic events. NPDES permits for CAFOs may also include water quality-based effluent limitations (or technology-based effluent limitations) in the form of narrative requirements to implement best management practices (BMPs) [see 40 CFR Part 122.44(k)].⁸

⁸ In addition to technology-based and water quality-based effluent limitations, EPA has authority under the CWA to impose other conditions in permits in the form of narrative requirements to implement best management practices (BMPs). [See §§ 402(a)(1)(B), 402(a)(2), 308(a) and 501(a) of the CWA].

3.3 Special Conditions for NPDES Permits for CAFOs

This section describes the special conditions that EPA expects NPDES permits for CAFOs will contain: (1) independently enforceable minimum standards, which the CNMP design and implementation must achieve in order to protect water quality (see Section 3.3.1); (2) the requirement to develop and fully implement a CNMP on an enforceable schedule, including interim milestones (see Section 3.3.2); and (3) any other special conditions the permit writer deems necessary to protect water quality. (See Section 3.3.4.)

3.3.1 Special Permit Conditions to Establish Minimum Standards to Protect Water Quality

As discussed above (Section 3.1), USDA and EPA agree that a well-prepared CNMP, developed in accordance with USDA's Technical Guidance, can minimize water quality impacts from CAFOs and associated land application activities. However, it is the responsibility of NPDES permitting authorities to issue NPDES permits that impose the provisions needed to meet the requirements of the CWA. To achieve this, EPA believes that CAFO permits should impose certain minimum standards in NPDES permits that are directly enforceable through the permit, independent of the CNMP. Permits should also require that the site-specific CNMPs be developed and implemented in ways that ensure that the CAFO meets these minimum standards.

The following table (Table 3-4) outlines the minimum standards that permitting authorities should include as special conditions in all NPDES permits for CAFOs, including certain minimum standards that should take effect upon the effective date of the permit. These minimum standards are intended to (1) serve as enforceable standards in NPDES permits to protect water quality; and (2) provide certified specialists with recommendations as they undertake development of site-specific CNMPs, which will enable these specialists to better determine the specific management measures and practices that need to be included in a site-specific CNMP and to tailor these measures to the site-specific needs and circumstances of the CAFO to ensure that the permittee is able to operate his/her CAFO on a day-to-day basis in compliance with its NPDES permit conditions. The CNMP itself would not relieve the CAFO from complying with all the minimum standards outlined in the permit.

Moreover, EPA's regulations at 40 CFR Part 122.44(k) specifically require permit writers to impose, where applicable, BMP permit conditions to control or abate the discharge of pollutants in any case when "[n]umeric effluent limitations are infeasible" or "[t]he practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of [the] CWA." At 40 CFR Part 122.44(k)(2) and (3). For example, permit writers may invoke these regulations by determining that it is not feasible to establish numeric limitations for the pollutants likely to be controlled by CNMPs because runoff and leaks and spills from CAFOs tend to be accidental, unpredictable releases and/or because EPA is unable to specify with any certainty the quantities of pollutants to be regulated.

Table 3-4. Minimum Standards to Protect Water Quality in NPDES Permits for CAFOs

<p>Each of the following minimum standards is designed to achieve the objective of preventing discharges of pollutants to waters of the U.S. from CAFOs and from land application activities under the operational control of the CAFO. Minimum standards or portions of minimum standards to be implemented on the effective date of the permit are identified with an asterisk (*). In addition to these minimum standards, permittees are also required to comply with other applicable technology-based and water quality-based effluent limitations (see Sections 3.2.1 and 3.2.2, respectively).</p>
<p>1. MINIMUM STANDARD: BUFFERS OR EQUIVALENT PRACTICES</p> <p>Provide and maintain buffer strips or other equivalent practices near feedlots, manure storage areas, and land application areas that are sufficient to minimize discharge of pollutants to waters of the United States (e.g., soil erosion and manure and wastewater). These practices may include but are not limited to residue management, conservation crop rotation, grassed waterways, strip cropping, vegetative buffers, forested riparian buffers, terracing, and diversion.</p>
<p>2. MINIMUM STANDARD: DIVERT CLEAN WATER</p> <p>*Design and implement management practices to divert clean water and floodwaters from contact with feedlots and holding pens; animal manure; or manure and/or process wastewater storage systems. Clean water includes rain falling on the roofs of facilities, runoff from adjacent land, or other sources.</p>
<p>3. MINIMUM STANDARD: PREVENT DIRECT CONTACT OF ANIMALS WITH WATERS OF THE UNITED STATES</p> <p>*Develop and implement appropriate controls to prevent direct access of animals in confinement to waters of the United States to protect water quality.</p>
<p>4. MINIMUM STANDARD: ANIMAL MORTALITY</p> <p>*Handle and dispose of dead animals in a manner that prevents contamination of surface waters of the United States (including contamination of groundwater with a direct hydrological connection to surface waters).</p>
<p>5. MINIMUM STANDARD: CHEMICAL DISPOSAL</p> <p>*Prevent introduction of chemicals into manure and wastewater storage structures for purposes of disposal. Examples include pesticides, hazardous and toxic chemicals, and petroleum products/by-products.</p>
<p>6. MINIMUM STANDARD: PROPER OPERATION AND MAINTENANCE</p> <p>*Implement an operation and maintenance program that involves periodic visual inspection and maintenance of all manure storage and handling equipment and structures and all runoff management devices (e.g., cleaning separators, barnyards, catch basins, screens, annual calibration of land application equipment, maintenance of filter strips) and to minimize discharges of pollutants to surface water and to groundwater that is hydrologically connected to surface water.</p> <p>All manure application equipment must be tested and calibrated annually to ensure proper application rates.</p>

Table 3-4. (CONTINUED)

7. MINIMUM STANDARD: RECORD KEEPING AND TESTING

*Maintain a log that documents the visual inspections, findings, and preventative maintenance activities.

*Document the date, rate, location, type of crops, and methods used for application of manure and wastewater as well as other nutrients to land under the control of the CAFO operator.

Where manure and wastewater are not applied on land under the operational control of the CAFO operator, maintain a record of the transfer of the manure off-site (see Section 3.3.3.2 of this guidance).

*Record the results of annual manure and wastewater sampling to determine nutrient content.

*Record the results of representative soil sampling and analyses conducted at least every three years to determine nutrient content.

8. MINIMUM STANDARD: MAINTAIN PROPER STORAGE CAPACITY

Maintain sufficient freeboard in liquid manure storage structures to ensure compliance with the permit conditions.

*Store dry manure in production buildings or in storage facilities or otherwise store in such a way as to prevent polluted runoff (e.g., located on relatively flat land, away from water bodies, wetlands, and wells, and/or surrounded by a berm or buffer).

Provide adequate storage capacity so that land application occurs only during periods when land or weather conditions are suitable for manure and wastewater application. (See Minimum Standard 9 below.)

9. MINIMUM STANDARD: RATES AND TIMING OF LAND APPLICATION OF MANURE AND WASTEWATER

*Land apply manure and/or wastewater in accordance with proper agricultural practices.

Land apply manure and/or wastewater in accordance with land application rates developed on a site-specific basis as needed to protect water quality. At a minimum, land application rates should (1) prevent application of nutrients at rates that will exceed the capacity of the soil and the planned crops to assimilate nutrients and minimize water pollution; and (2) be quantified and based on the most limiting nutrient in the soil (e.g., phosphorus or nitrogen), type of crop, realistic crop yields, soil type, and all nutrient inputs in addition to those from manure and wastewater.

* Manure and wastewater should not be applied on land that is flooded, saturated with water, frozen or snow covered at the time of land application where the manure and wastewater may enter waters of the United States.

*Land application of manure and wastewater is prohibited during rainfall events and should be delayed if precipitation with the potential to create manure and/or wastewater runoff into waters of the United States is forecast within 24 hours of the planned application.

3.3.2 Special Permit Conditions to Establish Schedules for CNMPs

The schedule for developing and implementing a CNMP by a specified date should be established in the NPDES permit, including interim milestones. In establishing schedules, permitting authorities should consider the State's specific circumstances and constraints. Large CAFOs (more than 1,000 AUs) should be required to develop and fully implement a CNMP as expeditiously as possible, but no later than 2003. To achieve this, the permitting authority should issue a general NPDES permit for large CAFOs by June 2001. For other CAFOs, NPDES general permits should contain schedules that require CAFOs to develop and implement CNMPs as expeditiously as possible, but no later than the end of 2005.⁹ These schedules would reflect, as a matter of identifying the best available technologies, the minimum time necessary to develop and implement controls.

The NPDES permit issued to a CAFO should contain a requirement that the CNMP be maintained on-site and updated, as needed. The permit should require that within 30 days of completion of the CNMP the CAFO submit a report indicating that the CNMP has been developed and is being fully implemented. The notice submitted by the CAFO should also identify the certified specialist who developed the CNMP and any other important summary information.

3.3.3 How Is Land Application of Manure and Wastewater Handled in the Permit?

In the AFO Strategy, USDA and EPA recognized that animal manure and wastewater from CAFOs are commonly applied to the land, and that proper land application of these resources has agricultural benefits. USDA and EPA also recognized the need to ensure that the proper amounts of all nutrients are applied to the land in a manner that protects water quality and public health.

As noted above, where a CAFO applies its waste to the land, NPDES permits should contain conditions that require proper land application of CAFO-generated manure and/or wastewater as an independent minimum standard and as a component of the CNMP. The minimum standard should specify that the rate and timing of land application of manure and wastewater must ensure that it protects water quality (see Minimum Standard #9 in Table 3-4); the CNMP will add detail concerning what the permittee should do on a site-specific basis to achieve the minimum standard. It is important to note, however, that the permit does not protect the CAFO from liability for discharges that result from: (1) a CNMP that is not properly developed and/or implemented (e.g., land application of CAFO wastes that is not in accordance with the CNMP or Minimum Standard #9 in Table 3-4); or (2) other deficiencies resulting from improper operation or maintenance (e.g., hose or pipe breaks, or equipment that is not correctly calibrated).

⁹ Exceptionally large CAFOs should be required to submit a completed CNMP to the permitting authority along with their permit application or NOI (see Section 4.2.1).

3.3.3.1 How Are Land Application Activities Under the Control of the CAFO Operator Addressed?

As discussed in Section 2.4, where a CAFO operator overapplies or otherwise improperly applies its manure or wastewater to land application areas under his or her control, discharge of pollutants from those areas to the surface waters is subject to NPDES permitting. Therefore, the NPDES permitting authority should ensure that land application activities are fully addressed in the NPDES permit by including both the minimum standard for land application and the requirement to develop and implement an appropriate CNMP to meet that minimum standard. This approach allows the NPDES permitting authority to ensure proper land application of CAFO-generated manure and/or wastewater in a manner that is consistent with the intent of the agricultural stormwater exemption contained in §502(14) of the CWA.

3.3.3.2 How Are Land Application Activities Not Under the Control of the CAFO Operator Addressed?

Responsibilities of the Permitted CAFO

In cases where CAFO-generated manure is sold or given away to be used for land application activities that are not under the operational control of the permitted CAFO, the specific manner of land application does not need to be addressed in the CAFO's CNMP. However, to ensure the environmentally acceptable use of the CAFO-generated manure, the permit writer should include minimum standards as special conditions in the NPDES permit that require the CAFO to do the following:

- Maintain records showing the date and the amount of manure and/or wastewater that leaves the operation;
- Record the name and address of the recipient(s);
- Provide the recipient(s) with representative information on the nutrient content of the manure and/or wastewater to be used in determining the appropriate land application rates; and
- Inform the recipient of his or her responsibility to properly manage the land application of the manure and/or to prevent discharge of pollutants to waters of the United States

The permit should require these records to be retained onsite, and to be submitted to the permitting authority upon request. (See Addendum C of the Sample Permit.)

Responsibilities of the Recipient of CAFO-generated Manure

The addition of pollutants to waters of the United States through a discrete conveyance is regulated under the CWA as a point source discharge. The CWA exempts “agricultural stormwater discharges” from the definition of a point source (§ 502(14)). Where the recipient of CAFO-generated manure and/or wastewater conducts land application activities according to proper agricultural practices, discharges of those wastes from land application areas via stormwater are exempt from point source requirements because they qualify for the CWA exemption for agricultural stormwater discharges [§502(14)]. However, where a recipient of CAFO-generated manure and/or wastewater does not apply manure and/or wastewater according to proper agricultural practices (e.g., applies in excessive amounts, at inappropriate times, etc.), any discharge to waters of the U.S. through a point source (i.e., discrete conveyance) is not entitled to the agricultural stormwater exemption and may be required to apply for an NPDES permit [40 CFR Part 122.2].

3.3.4 What Other Special Conditions Should Be Incorporated into NPDES Permits for CAFOs to Protect Water Quality?

The permitting authority may determine that additional special conditions beyond the minimum standards to protect water quality are necessary to ensure compliance with the CWA. For example, such additional requirements may address emergency discharge impact abatement, irrigation control, spills, measurement of rainfall, liner requirements to protect against discharges to surface waters and to groundwaters hydrologically connected to surface waters, endangered species and migratory birds, employee training, and facility closure.

3.4 Monitoring, Record Keeping, and Reporting Requirements

In general, monitoring should be focused on qualitative controls that:

- Ensure that the facility develops and implements an effective CNMP on a schedule established in the permit, including interim milestones, as appropriate; and
- Ensure that the permitted facility is complying with the minimum standards in the permit (Table 3-4), including submitting required documentation to the permitting authority.

The permit may also include requirements for visual inspection of storage areas, transportation equipment, land application areas, and/or other activities required to effectively implement the CNMP. For example, if the minimum standards require the operator to maintain a specific measure of freeboard in a storage lagoon, the permittee should be required to periodically

measure freeboard using a permanent marker in the lagoon. Similarly, to ensure accurate measurement of application rates for land application of manure, the permittee should be required to calibrate the manure spreading equipment annually. Refer to Part IV.C of the sample permit in Appendix F for examples of inspection and monitoring requirements.

Records should be kept of the results of all required inspections, monitoring activities, and sampling. The permittee should also be required to keep records of CAFO-generated waste that is used for land application activities that are not under the control of the permitted CAFO operator consistent with Section 3.3.3.2 of this guidance manual.

Reporting requirements are generally linked to monitoring requirements and may include periodic reports, emergency reports for overflow events, and special reports. When the NPDES permit writer develops the monitoring and reporting requirements for the NPDES permit, he or she should address the routine operational characteristics of the facility and the minimum reporting requirements in the regulations at 40 CFR Part 122.41(l). The permit also should include monitoring and reporting requirements that address nonroutine activities. For example, discharges at a CAFO can occur because of an overflow during a catastrophic storm event (allowable discharge under the terms of the permit) or a leak, breach, overflow, or other structural failure of a storage facility due to improper operation or design (unauthorized discharges). Discharges may also occur due to manure releases related to the improper storage or handling of liquid or solid manure, or improper land application. The permit should require immediate notification of the permitting authority, specific data collection activities, and a follow-up report describing such discharges. The monitoring and reporting requirements should ensure that the permittee provides a description; identifies the time and duration of the event, as well as the cause(s); and presents an analysis (if required by the permitting authority) of the discharge.

4.0 HOW DO I DEVELOP AND IMPLEMENT NPDES PERMITS FOR CAFOs?

NPDES permitting authorities have two options for permitting CAFOs: general permits and individual permits. This section describes both permitting options, as well as situations in which one or the other is appropriate.

4.1 NPDES General Permits for CAFOs

A general NPDES permit is written to cover a category of point sources with similar characteristics for a defined geographic area. The majority of CAFOs may appropriately be covered under an NPDES general permit because CAFOs generally involve similar types of operations, require the same kinds of effluent limitations and permit conditions, and discharge the same types of pollutants. Section 4.2 discusses the circumstances where individual NPDES permits for CAFOs are more appropriate.

General permits offer a cost-effective approach for NPDES permitting authorities because they can cover a large number of facilities under a single permit. At the same time, the general permit can also provide the flexibility for the permittee to develop and implement pollution control measures that are tailored to the site-specific situation of the permittee. EPA strongly encourages NPDES permitting authorities to make ample provision for public involvement at key steps in the process of developing and issuing NPDES general permits for CAFOs.

The geographic scope of a general permit is flexible and can correspond to political or other boundaries. During Round I permitting of CAFOs, the statewide general permit offers the most expedient way to get CAFOs covered under an NPDES permit and to initiate development and implementation of CNMPs on a schedule.

In Round I, there may be situations where a State determines that a general NPDES permit may be more appropriate for a group of CAFOs located in a particular watershed. For example, the permitting authority may identify specific watersheds in which a group of CAFOs have been determined to be discharging pollutants that result in water quality impairment of a water body or in non-attainment of designed uses. In these situations, the permitting authority may choose to develop and implement a watershed general NPDES permit to tailor permit conditions to the site-specific needs and circumstances of the CAFOs in that watershed. The AFO Strategy encourages the use of watershed general permits as a way to tailor permit requirements to the manure and wastewater management practices in a given area and to promote more effective public participation in a defined geographic area. A watershed general permit for CAFOs may also be appropriate where development and implementation of a TMDL requires point sources, including CAFOs, to undertake more stringent requirements to protect water quality.

4.1.1 How Is an NPDES General Permit for CAFOs Developed and Implemented?

EPA and the States have extensive information and experience in developing and implementing NPDES general permits. These general permits can be developed to cover one or several animal livestock sectors. This guidance will, therefore, highlight only some of the unique features of permitting CAFOs under NPDES general permits. The procedures and requirements for issuing NPDES general permits are located at 40 CFR Part 122.28 and in the corresponding State regulations. At present (summer 2000), 43 states have been authorized to issue NPDES general permits.

In developing and issuing an NPDES general permit, the NPDES permitting authority develops a draft permit and a fact sheet that defines the following: the scope of the permit, the facilities that qualify for coverage under the permit, and the specific expectations of permittees. The permitting authority then makes the draft permit and fact sheet available for review through a public notice and comment period. After comments have been considered and a public hearing held, if necessary, the final permit is issued, usually for a five-year term. To apply for coverage, facilities should submit a Notice of Intent to be covered (NOI) in accordance with a schedule established in the permit. An owner or operator eligible for a general permit may request to be excluded from coverage under the NPDES general permit by applying for an NPDES individual permit. Consistent with provisions in the NPDES regulations [40 CFR Part 122.28(b)(3)], any interested party may petition the director of the NPDES permitting authority to require any specific facility to be covered under an individual permit.

NPDES general permits should contain special provisions that identify which facilities are more appropriately covered under individual NPDES permits (see Section 4.2). For example, States may develop their NPDES general permits in a way that limits coverage to facilities of a certain size, thereby requiring CAFOs above a certain threshold to apply for an individual NPDES permit. Alternatively, States may choose to develop their NPDES general permits so that they identify certain facilities as a separate class of CAFOs that need to meet additional permit conditions identified in the general permit.

Given the intense public interest in the issue of animal waste management and the permitting of CAFOs, EPA strongly encourages early and effective outreach during the preparation and public notice of draft NPDES general permits for CAFOs. For example, New York State issued a draft NPDES general permit for CAFOs for public comment and then conducted four public information meetings to explain the content and procedures for its draft permit. This kind of outreach can help address questions and concerns, promote effective public input in this stage of the process, and reduce the number of challenges to general permits.

4.1.2 How Do CAFOs Seek Permit Coverage Under an NPDES General Permit?

NPDES general permits for CAFOs should specify the deadlines for submitting Notices of Intent (NOIs) to be covered and the date(s) when a permittee is covered by the NPDES general permit. Any facility that seeks coverage under a general permit is required to submit a written NOI by a date certain (as identified in the final general permit) unless otherwise notified by the permitting authority [40 CFR Part 122.28(b)(2)]. A sample NOI is found in Addendum A of the sample NPDES permit for CAFOs, provided in Appendix F.

A complete and timely NOI indicates the owner/operator's intent to abide by all the conditions of the permit and fulfills the requirements for a permit application. The contents of the NOI should be clearly specified in the general permit, including the requirement to submit adequate information to determine whether coverage under the general permit is appropriate. NPDES general permits for CAFOs should require that the contents of the NOI include, at a minimum:

- Legal name and address of the owner and operator;
- Facility name and address and contact person;
- Physical location and longitude and latitude information;
- Type and number of animals at the CAFO;
- Receiving stream information; and
- Operator signature and certification.

[See 40 CFR Part 122.28(b)(2)]

4.1.3 How Does the Permitting Authority Manage NOIs?

The NOI serves as a permit application for CAFOs that seek coverage under the NPDES general permit. The general permit should specify whether the facility is authorized to discharge in accordance with the permit in one of the following ways: (1) immediately upon receipt of the NOI by the permitting authority; (2) after a specified waiting period, which is identified in the general permit; (3) on a specific date, as specified in the general permit; or (4) upon receipt of notification of inclusion by the permitting authority.

The permitting authority should make the NOI and the certification of CNMP development available to the public and other interested parties. Recognizing the constantly changing scope of facilities covered by general permits and the high cost of traditional public notice and access to information, EPA encourages States to develop and use Internet-based sites as a supplemental means to provide ready public access to CAFO general permits, facility NOIs, and other information. Some States, such as Kansas, have already made much of this information available on State-supported web sites.

The NOI also provides essential compliance information, and the permitting authority should ensure that the following information is entered into the Permit Compliance System: NPDES permit number; facility name; facility location; animal type(s), number of animals; the name and address of the contract holder (for contract operations); CNMP date of approval; and where a CNMP has not been developed, the schedule for developing and implementing a CNMP, including interim milestones.

4.2 Individual NPDES Permits for CAFOs

The permitting authority may require any discharger authorized by an NPDES general permit to apply for and obtain an individual NPDES permit [40 CFR Part 122.28(b)(3)]. In addition, any interested person may petition the permitting authority to take such action [40 CFR Part 122.28(b)(3)]. In Round I, the permitting authority should issue individual NPDES permits to certain CAFOs. This section describes which CAFOs are most appropriately covered by individual NPDES permits, as well as additional permit conditions that should be imposed on certain facilities.

4.2.1 Which CAFOs Should Be Covered by Individual NPDES Permits?

In Round I, individual NPDES permits are most appropriate for the following CAFOs:

- Exceptionally large operations (existing and new);
- Facilities undergoing significant expansion;
- Operations that have historical compliance problems; and
- Operations that have significant environmental concerns.

Individual NPDES permits for exceptionally large CAFOs should not be issued until the facility owner or operator prepares a CNMP that contains the site-specific information on how the CAFO intends to achieve the nine minimum standards (see Section 3.3.1), and submits the completed CNMP to the permitting authority along with an individual NPDES permit application. Permitting authorities should also include the methodology used to develop site-specific limitations to satisfy the nine minimum standards, including land application rates, in the individual permits issued to exceptionally large CAFOs.

EPA also encourages permitting authorities to advise these CAFOs as early as possible that the Agency is in the process of revising its effluent limitation guidelines for animal feeding operations and is actively exploring a range of improved technologies and practices for storing and treating animal waste, such as dry housing and bedding systems, anaerobic digesters with power generation, composting, and nutrient management practices that result in drier manure. Although

the final outcome of these analyses is not now known, owners and operators of new, exceptionally large or significantly expanding CAFOs should be encouraged to take advantage of opportunities they may have for early incorporation of such innovative technologies and practices.

4.2.2 How Are Individual NPDES Permits Developed?

An individual NPDES permit for a CAFO is developed in the same manner as an NPDES permit for a facility in any other sector. Upon receipt of the permit application, the permit writer develops a draft permit and fact sheet for a particular facility based on the information contained in the application submitted by the facility (e.g., type of activity, nature of discharge, quality of receiving water). The draft permit and fact sheet are made available for public review and comment and are subsequently issued in final form.

The NPDES regulations at 40 CFR Part 122.21(f) require all applicants for NPDES permits to provide general facility information (NPDES Form 1). The regulations at 40 CFR Part 122.21(i) require new and existing CAFOs to provide additional information using NPDES Application Form 2B for Concentrated Animal Feeding Operations and Aquatic Animal Production Facilities. Table 4–1 lists the information that must be provided on Forms 1 and 2B. Appendix E includes copies of Forms 1 and 2B. In addition, facility inspection report(s) may be used to supplement the development of permit conditions. Appendix B contains a list of possible references for the permit writer in support of NPDES permit development.

Given the potential environmental concerns associated with CAFOs to be covered under individual NPDES permits, the permitting authority should take special steps to ensure that it has all the necessary information needed to prepare the draft permit and fact sheet. The permitting authority is encouraged to use its CWA Section 308 authority or corresponding State authorities to obtain additional needed information or to conduct a site inspection while developing the draft permit.

Table 4–1. Information Required on NPDES Application Forms 1 and 2B

Form	Information Required
Form 1 (all NPDES permit applicants) (40 CFR Part 122.21(f))	Activities conducted by the applicant that require an NPDES permit
	Name, mailing address, and location of facility
	Standard Industrial Classification codes that best reflect the principal products or services provided (up to four)
	Operator’s name, address, and telephone number, and ownership status
	Whether the facility is located on Indian lands
	Listing of all other State and/or Federal permits or construction approvals received or applied for under CWA, RCRA, SDWA/UIC, PSD, NESHAP, etc.
	Topographic map extending 1 mile beyond the facility property boundaries of the source, depicting the facility and each of its intake/discharge structures; each TSD facility; each well where fluids from the facility are injected underground; and all wells, springs, and other surface water bodies and drinking water wells listed in public records or otherwise known in the area
Form 2B (new and existing CAFOs) (40 CFR Part 122.21(i))	Brief description of the nature of the business
	Type and number of animals in open confinement and housed under roof
	Number of acres used for confinement feeding Design basis for runoff diversion and control system, if one exists, including the number of acres contributing drainage, the storage capacity, and design safety factors

4.2.3 What Additional Conditions Should Be Included in Individual NPDES Permits for Exceptionally Large CAFOs?

NPDES permits for exceptionally large facilities should contain all the requirements and conditions outlined above for NPDES general permits. Because of the relatively larger environmental risk posed by these CAFOs, however, permitting authorities should consider including additional permit requirements. Depending on a State’s specific legal authorities, examples of such more stringent requirements include liners and covers for manure and wastewater storage facilities, and more frequent periodic water quality monitoring, with monitoring results submitted to the permitting authority.

5.0 OTHER CONSIDERATIONS

This chapter discusses several other important considerations for NPDES permitting authorities when developing and implementing NPDES permits for CAFOs.

5.1 How Should the Development of NPDES Permits for CAFOs Be Coordinated with Total Maximum Daily Loads (TMDLs)?

Under Section 303(d) of the CWA, States are required to identify and list water bodies that do not meet applicable State water quality standards and to include a priority ranking for establishment of Total Maximum Daily Loads (TMDLs) for all listed water quality limited segments. Section 303(d) further requires States to establish the TMDL for a pollutant at the level necessary to achieve applicable water quality standards in each listed water body. States are required to allocate the TMDL among the contributing sources (point and nonpoint sources). A Total Maximum Daily Load (TMDL) is defined as:

- The maximum amount of a pollutant that a water body can receive without violating water quality standards, and
- The sum of the wasteload allocations for point sources and load allocations for nonpoint sources and natural background plus a margin of safety (considers seasonal variation).

TMDLs are implemented through:

- NPDES permits;
- Nonpoint source programs; and
- Other Federal, State, and local laws and requirements.

During Round I permitting, EPA expects that most CAFOs will be covered by a statewide NPDES general permit that includes requirements to develop CNMPs and undertake implementation activities to meet the minimum standards outlined in Chapter 3.0. There may be situations, however, where CNMPs need to address the requirements of a TMDL for a particular water body segment or watershed. In these situations, the CNMP will need to be tailored to achieve the waste load allocation assigned to CAFOs by the TMDL. The permitting authority may want to use a watershed-specific NPDES permit for a group of CAFOs, where these point sources are essential to implementation of the TMDL.

5.2 How Do NPDES Permits for CAFOs Relate to CZARA Management Measures?

When Congress enacted the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), it identified nonpoint source pollution as a major factor in the continuing degradation of coastal waters and recognized that effective solutions to nonpoint source pollution could be implemented at the State and local levels. Congress added §6217, which calls on States with federally-approved coastal zone management programs to develop and implement coastal nonpoint pollution control programs. EPA and the National Oceanic and Atmospheric Administration (NOAA) jointly administer the §6217 program at the Federal level.

Section 6217(g) of CZARA called for EPA, in consultation with other agencies, to develop guidance on “management measures” for sources of nonpoint source pollution in coastal waters. In January 1993, EPA issued its *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, which addresses five major source categories of nonpoint pollution, including runoff from confined animal feeding operations. States are required by § 6217 to develop management measures that are “in conformity” with those established in EPA’s management measures guidance, including the AFO management measures.

CZARA management measures for AFOs are similar to EPA’s CAFO regulations. There are two management measures for confined animal facilities are presented in EPA’s CZARA guidance. The first management measure applies to all new operations and existing “large” operations (see Figure 5-1 below). This management measure applies to all new facilities regardless of size and to all existing confined animal facilities that contain more than a certain number of animals. As defined in EPA’s guidance, a large facility is one that contains the numbers of livestock or equivalent animal units listed below (see Table 5-1).

Figure 5-1: Management Measures for Facility Wastewater and Runoff from Confined Animal Facilities (New or Large Existing Facilities)

- Limit the discharge from confined animal facility to surface waters by:

 - Storing both the facility wastewater and the runoff from confined animal facilities that is caused by storms up to and including a 25 year, 24-hour frequency storm. Storage facilities should:
 - Have an earthen lining or plastic membrane lining, or
 - Be constructed with concrete, or
 - Be a storage tank;

and

 - Managing stored runoff and accumulated solids from the facility through an appropriate waste utilization system.

Source: *EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, January 1993, page 2-33

Table 5-1. CZARA Large Existing Facilities

Animal Type	Head	Animal Units
Beef Feedlots	300	300
Horses (Stabled)	200	400
Dairies	70	98
Layers	15,000	150 (liquid manure system) 495 (continuous flow watering system)
Broilers	15,000	150 (liquid manure system) 495 (continuous flow watering system)
Turkeys	13,750	2,475
Swine	200	80

Source: *EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, January 1993, page 2-33

These cutoffs were developed based on an economic analysis for CZARA, and the numbers of animals are different from the numbers of animals used in the definition of a CAFO under the NPDES regulations. This does not impede implementation of the NPDES program because EPA’s CZARA guidance states that any facility with an NPDES permit for CAFOs is exempt from CZARA requirements. If an AFO subject to CZARA requirements later becomes a CAFO (by definition or designation), that facility is no longer subject to the CZARA management measures. This means that an AFO will never be subject to both NPDES and CZARA requirements at the same time.

This CZARA management measure has the same goal as the NPDES requirements for CAFOs: no discharge of wastewater or runoff from feedlots during storms equal to or smaller than the 25-year, 24-hour storm event. Both programs envision facilities designed with sufficient storage capacity and management practices to contain all wastewater and runoff up to and including the 25-year, 24-hour storm event, although CZARA has more stringent requirements for waste storage structures to protect groundwater. In addition, the CZARA management measure calls for stored runoff and accumulated solids from the facility to be managed through an appropriate waste utilization system. This requirement can be met through implementation of an appropriate nutrient management plan.

The second management measure for feedlots in EPA’s CZARA guidance applies to “small existing units” as defined in CZARA and explained in Figure 5-2. This management measure for smaller existing operations applies to facilities that contain the number of livestock or animal units as shown in Figure Table 5-2. This management measure for small existing units calls for a somewhat less stringent level of control and was developed to minimize the economic impact on very small operations (i.e., systems should minimize as opposed to prevent discharges). This

management measure also calls for proper land application of waste. Feedlots containing fewer than the number of livestock animal units listed in Table 5-2 are not subject to the CZARA management measures.

Figure 5-2: Management Measures for Facility Wastewater and Runoff from Confined Animal Facilities (Small Existing Facilities)

- Minimize the discharge of pollutants by:
- Designing and implementing systems that collect solids, reduce containment concentrations, and reduce runoff to minimize the discharge of contaminants in both facility wastewater and in runoff that is caused by storms up to and including 25 year, 24-hour frequency storm. Implement these systems to substantially reduce significant increases in pollutant loading to groundwater.
 - Managing stored runoff and accumulated solids from the facility through an appropriate waste utilization system.

Source: *EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, January 1993, page 2-43*

Table 5-2. CZARA Small Existing Facilities

Animal Type	Head	Animal Units
Beef Feedlots	51-299	50-299
Horses (Stabled)	100-199	200-399
Dairies	20-69	28-97
Layers	5,000-14,999	50-149 (liquid manure system) 165-494 (Continuous flow watering system)
Broilers	5,000-14,999	50-149 (liquid manure system) 165-494 (continuous flow watering system)
Turkeys	5,000-13,749	900-2474
Swine	100-199	40-79

Source: *EPA Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, January 1993, page 2-43*

A separate CZARA management measure provides for producers to develop nutrient management plans to minimize damage to groundwater and surface water and to increase the efficiency of nutrient use by crops. The nutrient management measure is implemented through application of management practices and operation and maintenance requirements for nutrient

application to agricultural land. The appropriate nutrient management practices are those commonly suggested by the USDA and States for general use on agricultural lands, and each State, in implementing its CZARA program, may select the management practices most appropriate for its nutrient management needs. At a minimum, the nutrient management plans must conform to the management measure as described in Figure 5-3 below.

Figure 5 - 3. CZARA Nutrient Management Measures

Develop, implement, and periodically update a nutrient management plan that includes the following core components:

- **Maps:** Farm and field maps indicating acreage, crops, soils, and water bodies
- **Yield Expectation:** Realistic yield expectations for the crop(s) grown.
- **Nutrient Resources:** A summary of available nutrient resources, including soil test results for pH, phosphorus, nitrogen, and potassium; a nutrient analysis of manure or other effluent; nitrogen contribution to the soil from legumes grown in the rotation (if applicable); and information on other significant nutrient sources (e.g., irrigation water)
- **Field Limitations:** An evaluation of field limitations based on environmental hazards or concerns, such as sinkholes, shallow soils over fractured bedrock, and soils with high leaching potential; lands near surface water; highly erodible soils; and shallow aquifers.
- **Limited Nutrients:** Use of the limiting nutrient concept to establish the mix of nutrient sources and requirements for the crop based on realistic yield expectations.
- **Application and Timing Methods:** Identification of application and timing methods for nutrients in order to achieve realistic crop results, reduce losses to the environment, and avoid application to frozen soil during periods of leaching or runoff.
- **Calibrations:** Provisions for the proper calibration and operation of application equipment.

The practices that can be used to implement and fulfill these management measures are described in detail in EPA's *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. The practices described in this reference are useful for feedlots with NPDES permits as well.

5.3 How Can Smaller CAFOs Exit the Regulatory Program?

Smaller CAFOs (those with fewer than 1,000 AUs) should be allowed to exit the NPDES permitting program after the end of the five-year permit term if they meet certain conditions. To exit the program, a facility would be expected to demonstrate that it (1) has successfully addressed the conditions that caused it to be defined or designated as a CAFO; (2) is fully implementing its CNMP; and (3) is in full compliance with its permit at the end of the permit term. In the event a facility that has exited the program has a subsequent discharge, the permitting authority should again consider the facility subject to permitting and enforcement.

5.4 What Will Happen in Round II Permitting?

The second round of CAFO permitting should begin in 2005. EPA is currently reviewing and revising the existing effluent limitation guideline regulations for feedlots, as well as the NPDES permit program regulations. Any general and individual NPDES permits for CAFOs issued after the revised regulations are promulgated in December 2002 must reflect the requirements in the revised regulations, and should address any refinements to site-specific CNMPs needed to address water quality goals and objectives (e.g., State water quality standards for nutrients, TMDLs) as well as any remaining water quality issues that were not resolved as a result of the initial Round I permits.

APPENDIX A

EXECUTIVE SUMMARY

USDA/EPA Unified National Strategy for Animal Feeding Operations
(March 1999)

UNIFIED NATIONAL AFO STRATEGY

EXECUTIVE SUMMARY

Over the past quarter century, the United States has made tremendous progress in cleaning up its rivers, lakes, and coastal waters. While pollution from factories and sewage treatment plants has been dramatically reduced, runoff from city streets, agricultural activities (including animal feeding operations or AFOs), and other sources continues to degrade the environment and puts drinking water at risk.

In February 1998, President Clinton released the Clean Water Action Plan (CWAP), which provides a blueprint for restoring and protecting water quality across the Nation. The CWAP identifies polluted runoff as the most important remaining source of water pollution and provides for a coordinated effort to reduce polluted runoff from a variety of sources. As part of this effort, the CWAP calls for the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA) to develop a Unified National Strategy to minimize the water quality and public health impacts of animal feeding operations (AFOs).

USDA and EPA issued a draft of this Strategy on September 16, 1998, and requested public comment during a 120-day period. In addition, 11 national “listening sessions” were held throughout the U.S. to discuss the draft Strategy and hear public feedback. The final Strategy reflects written comments received as well as issues raised during the listening sessions.

The Unified AFO Strategy discusses the relationships between AFOs and environmental and public health, is based on a national performance expectation for all AFO owners and operators, and presents a series of actions to minimize public health impacts and improve water quality while complementing the long-term sustainability of livestock production.

Background

AFOs are agricultural enterprises where animals are kept and raised in confined situations. Approximately 450,000 AFOs in the United States congregate animals, feed, manure and urine, dead animals, and production operations on a small land area. USDA data indicate that the vast majority of farms with livestock are small—about 85% of these farms have fewer than 250 animal units (AUs), where an AU is equal to roughly one beef cow (therefore 1,000 AUs is equal to 1,000 beef cows or an equivalent number of other kinds of animals). About 6,600 AFOs had more than 1,000 AUs in 1992 and are considered to be large operations.

As a result of domestic and export market forces, technological changes, and industry adaptations, the past several decades have seen substantial changes in the animal production industry. Despite USDA support for sustainable agricultural practices, these factors have promoted expansion of confined production units, with growth in both existing areas and new areas; integration and concentration of some of the industries; geographic separation of animal production

and feed production operations; and the concentration of large quantities of manure and wastewater on farms and in some watersheds.

AFOs can pose a number of risks to water quality and public health, mainly because of the amount of animal manure and wastewater they generate. Manure and wastewater from AFOs have the potential to contribute pollutants such as nutrients (e.g., nitrogen, phosphorus), organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, and ammonia to the environment. These pollutants can cause several types of water quality and public health impacts, such as contamination of drinking water supplies and fish kills. While there are other potential environmental impacts associated with AFOs (e.g., odor, habitat loss, ground water depletion), this Strategy focuses on addressing surface and groundwater quality problems. Once implemented, however, this Strategy will indirectly benefit other resources.

USDA and EPA's National Performance Expectation

To minimize water quality and public health impacts from AFOs and land application of animal waste, this Strategy is based on a national performance expectation that all AFO owners and operators develop and implement technically sound and economically feasible site-specific Comprehensive Nutrient Management Plans (CNMPs). A CNMP identifies actions that will be implemented to meet clearly defined nutrient management goals at an agricultural operation. The following components may be contained in a CNMP:

- **Feed Management**—Animal diets and feed may be modified to reduce the amounts of nutrients in manure.
- **Manure Handling and Storage**—Manure needs to be handled and stored properly to prevent water pollution from AFOs.
- **Land Application of Manure**—Land application is the most common and usually most desirable method of utilizing manure because of the value of the nutrients and organic matter. Land application in accordance with the CNMP should minimize water quality and public health risk.
- **Land Management**—Tillage, crop residue management, grazing management, and other conservation practices should be utilized to minimize movement to surface and ground water of soil, organic materials, nutrients, and pathogens from lands where manure is applied.
- **Record Keeping**—AFO operators should keep records that indicate the quantity of manure produced and how the manure was utilized, including where, when, and amount of nutrients applied.

- **Other Utilization Options**—Where the potential for environmentally sound land application is limited, alternative uses of manure, such as the sale of manure to other farmers, composting and sale of compost to home owners, and using manure for power generation may also be appropriate.

AFO owners and operators may seek technical assistance for the development and implementation of CNMPs from qualified specialists. These specialists should assist in implementation and provide ongoing assistance through periodic reviews and revisions of CNMPs, as appropriate. USDA and EPA recommend that certified specialists be used to develop and ensure the quality of CNMPs.

Relationship of Voluntary and Regulatory Programs

Voluntary and regulatory programs serve complementary roles in providing AFO owners and operators and the animal agricultural industry with the assistance and certainty they need to achieve individual business and personal goals, and in ensuring protection of water quality and public health.

Voluntary Program for Most AFOs

Voluntary programs provide an enormous opportunity to help AFO owners and operators and communities address water quality and public health concerns surrounding AFOs. For the vast majority of AFOs, voluntary efforts will be the principal approach to assist owners and operators in developing and implementing site-specific CNMPs, and in reducing water pollution and public health risks associated with AFOs. While CNMPs are not required for AFOs participating only in voluntary programs, they are strongly encouraged as the best possible means of managing potential water quality and public health impacts from these operations.

There are three types of voluntary programs to assist AFO owners and operators. USDA and EPA are both committed to promoting **locally led conservation** as one of the most effective ways to help AFO owners and operators achieve their conservation goals. **Environmental education** can bring an awareness of possible water quality problems and inform AFO owners and operators about practices that will address such problems. A variety of **financial and technical assistance** programs exist to provide AFO owners and operators advice in developing CNMPs and implementing solutions and to help defray the costs of approved/needed structures (e.g., waste storage facilities for small operations) or to implement other practices, such as installation of conservation buffers to protect water quality.

Regulatory Program for Some AFOs

Impacts from certain higher risk AFOs are addressed through National Pollutant Discharge Elimination System (NPDES) permits under the authority of the Clean Water Act. AFOs that meet

certain specified criteria in the NPDES regulations are referred to as concentrated animal feeding operations or CAFOs.

NPDES permits will require CAFOs to develop CNMPs and to meet other conditions that minimize the threat to water quality and public health and otherwise ensure compliance with the requirements of the Clean Water Act. NPDES permits will also ensure that the animal manure from CAFOs will be utilized properly and require reporting on whether the permittee has a CNMP including land application of animal manure and whether it is being implemented properly. The Strategy identifies three categories of CAFOs that are priorities for the regulatory program:

- **Significant Manure Production**—Large facilities (those with greater than 1,000 animal units) produce quantities of manure that can be a risk to water quality and public health.
- **Unacceptable Conditions**—Facilities that have man-made conveyances that discharge animal waste to waters or have a direct discharge to waters that pass through the facility or come into direct contact with animals represent a significant risk to water quality and public health.
- **Significant Contributors to Water Quality Impairment**—A facility that is significantly contributing to impairment of a water body or a watershed and nonattainment of a designated use is also a priority for the NPDES permitting program.

The Strategy supplements these regulatory program priorities with three types of incentives for some AFOs. Smaller CAFOs that meet certain conditions may exit the regulatory program at the end of their permit term if they correct the problem(s) that caused them to be covered by the regulatory program. The Strategy also describes a “good faith incentive” for some AFOs to avoid being covered by the regulatory program if they have and are implementing a CNMP. Finally, there are tax incentives that may be available to encourage AFOs owners and operators to develop and implement a CNMP.

Coordination with State and Tribal Programs

States and Tribes play a critical role in the development and implementation of national and State and Tribal resource protection programs. USDA and EPA expect to work with States and Tribes to implement effective programs to achieve the national goal and performance expectation of this Strategy. The Strategy includes actions to address a range of State and Tribal issues.

Strategic Issues

The Unified AFO Strategy addresses seven strategic issues. The discussion of each strategic issue identifies several action items.

- **Building Capacity for CNMP Development and Implementation**—The successful implementation of this Strategy depends on the availability of qualified specialists from either the private or public sectors to assist in the development and implementation of CNMPs. The Strategy describes actions to substantially increase AFO owners and operators’ access to technical assistance for developing and implementing CNMPs.
- **Accelerating Voluntary, Incentive-Based Programs**—The Strategy sets out a desired outcome that all AFOs will have CNMPs by 2009. Several actions, including review and revision of USDA’s practice standards, development of CNMP guidance, fair and equitable program delivery, and options for financial assistance, are directed toward achieving this objective.
- **Implementing and Improving the Existing Regulatory Program**—The Strategy describes the applicability and the requirements of the existing regulatory program, identifies permitting and enforcement priorities, recognizes State and Tribal CAFO permit programs, and describes EPA's plans to strengthen and improve existing regulations.
- **Coordinated Research, Technical Innovation, Compliance Assistance, and Technology Transfer**—USDA and EPA will establish coordinated research, technical innovation, and technology transfer activities, provide compliance assistance, and establish a single point information center. The two agencies are also committed to promoting sustainable agriculture and will support development of a livestock environmental issues curriculum for producers.
- **Encouraging Industry Leadership**—The animal agriculture industry can play a key role in helping to encourage adoption of CNMPs and in addressing water quality problems on individual AFOs. The Strategy includes possible actions that USDA and EPA may take to promote industry involvement.
- **Data Coordination**—Several kinds of data are useful in assessing and managing the water quality impacts of AFOs. USDA and EPA’s efforts to coordinate on data sharing will both protect the relationship of trust between USDA and farmers and provide regulatory authorities with information that is useful in protecting water quality and public health.
- **Performance Measures and Accountability**—USDA and EPA believe that it is critical to establish performance measures to gauge our success in implementing the Strategy and meeting relevant goals in each agency’s strategic plan established under the Government Performance and Results Act. USDA, EPA, States, Tribes, and other Federal agencies will work with other stakeholders to develop an approach for measuring the effectiveness of efforts to minimize the water quality and public health impacts of AFOs.

Printed copies of the Unified National Strategy for Animal Feeding Operations may be obtained by calling USDA at (202) 720-3210 or EPA at (202) 260-7786. An electronic version of the Strategy is available on the Internet at <http://www.epa.gov/owm>.

APPENDIX B

REFERENCES FOR AN NPDES PERMIT WRITER

DISCLAIMER

The documents and web sites referenced in this section are provided as a resource for permit writers. Their inclusion in this publication does not constitute endorsement or recommendation for use by the U.S. Environmental Protection Agency.

References

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Legislative, Policy, and Programmatic Tools

National

World Wide Web Pages

1996 Farm Bill Summary

<http://www.usda.gov/farmbill/title0.htm>

THE FEDERAL AGRICULTURE IMPROVEMENT AND REFORM ACT OF 1996

Title-by-Title Summary of Major Provisions of the Bill

Ag Environmental Programs

Summary of Major Existing EPA Laws and Programs That Could Affect Producers of Agricultural Commodities

<http://es.epa.gov/oeca/ag/aglaws/>

This information is designed to assist organizations and individuals who provide information and assistance to farmers by identifying and summarizing EPA's environmental requirements. Each requirement should be carefully reviewed and compared to a farmer's existing practices to determine whether the specific requirement applies to an individual farmer. Follow link to get links to requirements specific to Concentrated Animal Feeding Operations and manure holding ponds, lagoons, or tanks

Evaluation of the Experimental Rural Clean Water Program

<http://h2osparc.wq.ncsu.edu/info/rcwp/>

This publication presents the results of a comprehensive evaluation of the 10-year experimental Rural Clean Water Program (RCWP). The evaluation was conducted by the National Water Quality Evaluation Project (NWQEP) at North Carolina State University in cooperation with the U.S. Department of Agriculture (USDA), the U.S. Environmental Protection Agency (USEPA), and the 21 RCWP projects.

Farm*A*Syst and Home*A*Syst Home Page

<http://www.wisc.edu/farmasyst/index.html>

Our voluntary program is a partnership between government agencies and private business that enables individuals to prevent pollution on farms, ranches, and homes using confidential environmental assessments.

NRCS AFO Page

<http://www.nrcs.usda.gov/AFO.html>

USDA/EPA Unified National Strategy for Animal Feeding Operations

<http://www.epa.gov/owm/finafost.htm>

Online document, March 9, 1999



Using the Clean Water State Revolving Fund to Reduce Animal Feeding Operation Pollution
[DRAFT]

<http://www.epa.gov/owm/afosfact.pdf>

Fact sheet describing the Clean Water State Revolving Fund as it relates to AFOs.

Documents

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U.S. Environmental Protection Agency. 1998. Efforts to Improve Controls on Concentrated Animal Feeding Operations (CAFOs). Results of June 1998 Survey of States and Regions Compiled by G. Beatty, EPA, Office of Water, Washington, D.C.

U.S. Environmental Protection Agency. 1993. The Report of the EPA/State Feedlot Workgroup. Office of Wastewater Enforcement and Compliance, Washington, D.C.

New Dairy Waste Management Legislation. (1993, July). *Focus*. F-WQ-93-011.

Regional or State

World Wide Web Pages

Iowa AFO Programs

Iowa Ag Waste Management links

<http://www.ae.iastate.edu/waste.htm>

Rule summary, fact sheets, guidelines, and presentations.

Iowa Department of Natural Resources Environmental Protection Division.

<http://www.state.ia.us/government/dnr/organiza/epd/wastewtr/feedlot/feedlt.htm>

[November 6, 1997]. Provides a brief and simplified explanation of DNR's Environmental Protection Division's current regulation of confinement feeding operations.

Maine's Manure Law

<http://www.state.me.us/agriculture/oanrr/manurelaw.htm>

Minnesota Feedlot Program

http://www.pca.state.mn.us/programs/feedlots_p.html

MPCA—Water Quality Division, Feedlot Unit Program summary and links to information about Minnesota feedlots.

New Mexico Environment Department

<http://www.nmenv.state.nm.us/>

[May 6, 1998]. Questions & Answers about CAFO Regulations.

Oklahoma CAFO Info.

<http://www.oklaosf.state.ok.us/osfdocs/nr6497.html>

GOVERNOR SIGNS CONCENTRATED ANIMAL FEEDING OPERATIONS
LEGISLATION Press release—highlights state CAFO requirements

Idaho CAFO Info.

<http://www.oneplan.state.id.us>

Idaho OnePlan Website - "Livestock Topic"

Oregon CAFO program

http://www.oda.state.or.us/Natural_Resources/cafo.htm

Program overview, FAQs, and contacts.

Title 25. Environmental Resources Chapter 83. State Conservation Commission Subchapter D. Nutrient Management. (No date).

http://www.dep.state.pa.us/dep/SUBJECT/Proposed_regulations/Nutrient_Management.htm

Full text of Pennsylvania's Nutrient Management Act.

Veenhuizen, M. A., D. J. Eckhert, K. Elder, J. Johnson, W. F. Lyon, K. M. Mancl, and G. Schnitkey (eds.). Animal Waste Pollution Abatement Program. In *Ohio Livestock Manure and Wastewater Management Guide (Bulletin 604)*

http://www.ag.ohio-state.edu/~ohioline/b604/b604_30.html

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Iowa Department of Natural Resources. 1992. Environmental Regulations and Guidelines for Animal Feeding Operations in Iowa.

Illinois Department of Agriculture (IDOA). 1997. Livestock Management Facilities Act, Adopted May 20, 1997. State of Illinois Department of Agriculture, Bureau of Environmental Programs, Springfield, Illinois.

Kansas Department of Health and Environment. 1994. New Legislation Impacts on Kansas Livestock Operations: Registration & Permitting, Separation Distances, and Fees. Pamphlet describing rules and regulations regarding Senate Bill 800 effective July 1, 1994.

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National Association of State Departments of Agriculture (NASDA). 1997. Summary Matrix of State Survey on Waste and Manure Management Regulations.

North Carolina Division of Environmental Management (NCDEM). Water Quality Section. 1993. Major Nonpoint Source Management Programs in North Carolina: Agricultural Nonpoint Source Control Programs. Neuse River Basin wide Water Quality Management Plan.

Oklahoma Feed Yards Act 2 O.S. 1991, As Amended, Sections 9-201 et seq. And Rules 35:30-35-1 through 35:30-35-14. (1994, June) Oklahoma Department of Agriculture Plant Industry and Consumer Services.

State of Arkansas, Regulation No. 5, Liquid Animal Waste Management Systems, 1992.

Whittle, D. 1996. The Regulation of Animal Waste in North Carolina. (*In*) Environmental Law Update: A Pro Bono Initiative. Office of the Secretary, North Carolina Department of Environment, Health, and Natural Resources.

Technical and NPDES Permitting Tools

National

World Wide Web Pages

AgNIC Home Page

<http://www.agnic.org/>

AgNIC (Agriculture Network Information Center) is a distributed network that provides access to agriculture-related information, subject area experts, and other resources. It was established by an alliance of the National Agricultural Library, land-grant universities, and other organizations committed to facilitating public access to agricultural and related information.

Animal Waste and the Environment

<http://www.ces.uga.edu/pubcd/c827-w.html>

A paper by Cecil Hammond, former Extension Engineer

Certification Training for Operators of Animal Waste Management Systems

<http://ces.soil.ncsu.edu/certification/>

North Carolina State University site describing NCSU Animal Waste Management System Operator Training. Gives summary and course schedules. Also provides links to manuals designed for individuals involved in animal production and the waste management systems that are associated with these operations. The manuals explain waste system components, waste utilization plans, proper waste application, regulations, record keeping, safety and emergency action plans, and consequences of improper management.

Land Treatment—NRCS

<http://h2osparc.wq.ncsu.edu/info/idaho/landtrmt.html>

The objective of the land treatment program was to implement BMPs designed to reduce the amount of sediment, sediment-related pollutants, and animal waste discharging into Rock Creek from agricultural land. Best management practices were implemented to prevent sediment from entering the drains by controlling erosion within the farm fields and trapping sediment at field edges. The BMPs used in the project included: sediment retention structures, irrigation water management vegetative filter strips, cover crops, conservation tillage, and animal waste management. Describes processes used to define critical areas and select appropriate BMPs

Manure Master Decision Support Tool

<http://www.ftw.nrcs.usda.gov/ManureMaster/>

Online tool generates suggested BMPs based on the animal population of the facility and the type of crops to which the manure is applied.

NPS Management Measures Guidance

<http://www.epa.gov/OWOW/NPS/MMGI/>

Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA-840-B-93-001c, January 1993). Online copy.

NRCS Conservation Practice Standards

http://www.ftw.nrcs.usda.gov/practice_stds.html

NRCS descriptions and manuals for Best Management Practices.

NRCS Technical Tools

http://www.ncg.nrcs.usda.gov/tech_tools.html

NRCS tools for decision support, including animal waste management software, Manure Master decision support tool.

State of the Land—Concentrated Animal Production and Water Quality

<http://www.nhq.nrcs.usda.gov/land/env/wq5.html>

NRCS site linking to several documents related to CAFOs and water quality.

State Partners of the Cooperative State Research, Education, and Extension Service

<http://www.reeusda.gov/statepartners/usa.htm>

This section hosts the directory of land-grant universities which are state partners of the Cooperative State Research, Education, and Extension Service. Also included is the CSREES Online Directory of Professional Workers in Agriculture, the State Extension Service Directors and Administrators Directory as well as links to the websites of the schools of forestry, higher education, family and consumer sciences, veterinary science, and state extension services and state experiment stations.

Water Quality and Waste Management—NCSU

<http://www2.ncsu.edu/bae/programs/extension/publicat/wqwm/index.html>

North Carolina Cooperative Extension water quality and waste management publications available online.

Watershedss—Water, Soil, and Hydro-Environmental Decision Support System

<http://h2osparc.wq.ncsu.edu/>

The two primary objectives of WATERSHEDSS are to:

1. transfer water quality and land treatment information to watershed managers in order to assist them in making appropriate land management and land treatment decisions to achieve water quality goals
2. assess and evaluate sources, impacts, and potential management options for control of nonpoint source pollution in a watershed based on user-supplied information and decisions.

Documents

Association of State and Interstate Water Pollution Control Administrators (ASIWPCA). 1997. CAFO Standards for Pork Production, Survey. December 1997. ASIWPCA Washington, D.C.

University of Nebraska-Lincoln, Cooperative Extension, Institute of Agriculture and Natural Resources. 1996. Environmental Considerations for Manure Application System Selection. NebGuide. Electronic Version issued June 1996, G95-1266-A.

U.S. Environmental Protection Agency. 1996. U.S. EPA Permit Writers' Manual. Office of Water, December 1996. EPA-833-B-96-003.

Wright, P. No date. NPDES Regulations for Concentrated Animal Feeding Operations. Prepared by Peter Wright Senior Extension Associate, Cornell University.

Regional or State

World Wide Web Pages

EPA Region 6—Water Enforcement Branch - Concentrated Animal Feeding Operations

<http://www.epa.gov/earth1r6/6en/w/cafo/home.htm>

Region 6 page containing links to various resources for the Region 6 CAFO permitting program.

Hutchinson, Heidi. (1996). *Guidelines for Livestock Producers*. Ohio Environmental Protection Agency.

<http://www.ag.ohio-state.edu/~ohioline/glp/index.html>

This booklet was developed by the Ohio Agricultural Service Team to assist farmers in planning for the future. The pages that follow will help you determine whether some type of animal waste permit or plan is needed for your farm operation. [1997, November 20].

Iowa Livestock systems links

<http://www.ae.iastate.edu/livestock.htm>

Guidelines and fact sheets.

Research & Extension Activities in Animal Waste Management

North Carolina State University

<http://www.ces.ncsu.edu/whpaper/REactivities.html>

A large number of diverse research and extension activities pertaining to the management of animal wastes are being conducted by Agricultural Research Service scientists and Cooperative Extension Service specialists and agents in the College of Agriculture and Life Sciences at North Carolina State University. These projects range from laboratory studies of waste degradation processes and odor control to field demonstration projects exploring ways of managing animal wastes that will protect the environment and, in some cases, even turn wastes into useful products. In addition, extension training and educational programs have emphasized sound waste management concepts. This compendium briefly describes many current and recently completed projects related to the management of swine production wastes and to the impact of those wastes on environmental quality. Although every effort has been made to include all projects with a direct or indirect relationship to swine waste and odor management, these topics involve many disciplines and a large number of faculty members, and thus some projects with only a peripheral connection to the subject may not be included.

Searle, B. (ed.). (1997, October). Confined Animal Feeding Operations (CAFO) In *Oregon Farmer's Handbook* (Fourth Edition). Oregon Department of Agriculture.

<http://www.oda.state.or.us/ODA/handbook.html.folder/CAFO.html>

Brief description of requirements, permit fees and exemptions, and contacts for technical assistance and cost-sharing information for Confined Animal Feeding Operation (CAFO) wastewater containment/disposal systems in Oregon.

Documents

Arkansas Department of Pollution and Control Ecology. 1993. Draft General Permit Requirements. Permit No. ARG010000.

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APPENDIX C

**EXCERPTS FROM THE REGULATIONS
AND EFFLUENT LIMITATIONS GUIDELINES
FOR CONCENTRATED ANIMAL FEEDING OPERATIONS
(Not Included in Electronic Version; No Changes from Existing Regulations)**

APPENDIX D

**SAMPLE LETTERS TO AFO OWNERS/OPERATORS
REGARDING INSPECTION RESULTS
AND CASE-BY-CASE DESIGNATION DETERMINATIONS**

Sample Letters to AFO Owners/Operators Regarding Inspection Results and Case-By-Case Designation Determinations

Sample Letter in Follow-up to an Inspection: Facility *Not Designated* as a CAFO D-1

Sample Letter in Follow-up to an Inspection: Facility *Designated* as a CAFO D-2

Example Factors for Case-by-Case CAFO Designation D-6

Sample Letter in Follow-up to an Inspection:
Facility *Not Designated* as a CAFO

[NAME & ADDRESS]

Dear Mr./Ms. _____:

An inspection of your facility, located at [ADDRESS], was conducted on [DATE] by representatives of the [PERMITTING AUTHORITY]. The purpose of the inspection was to determine if conditions or practices on your animal feeding operation (AFO)¹ warrant designating your facility as a concentrated animal feeding operation (CAFO) and, consequently, requiring a National Pollutant Discharge Elimination System (NPDES) permit for operation.

During the inspection, no conditions or practices were observed to warrant designation of your facility as a CAFO at this time. However, the following areas of potential concern were noted.

[NOTE AREAS OF POTENTIAL CONCERN, IF ANY]

We request that you evaluate and address these areas of potential concern to ensure that they do not become problems. Technical information and assistance is available through [LOCAL NRCS OR EXTENSION OFFICE, STATE DEPARTMENT OF AGRICULTURE, OR USEPA's AGRICULTURAL ASSISTANCE CENTER (888/663-2155)].

The [PERMITTING AUTHORITY] may inspect your facility again in the future. Please be advised that any illicit discharges² to surface water or to surface water through ground water are violations of the Clean Water Act and subject to enforcement action with penalties.

Sincerely,

¹ An animal feeding operation is defined by the [Permitting Authority] as a "lot or facility" where animals "have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility."

²In the absence of an NPDES Permit all discharges from the facility are prohibited.

Sample Letter in Follow-up to an Inspection:
Facility *Designated* as a CAFO

[NAME & ADDRESS]

Dear Mr./Ms. _____:

An inspection of your facility, located at [ADDRESS], was conducted on [DATE] by representatives of the [PERMITTING AUTHORITY]. The purpose of the inspection was to determine if conditions or practices on your animal feeding operation (AFO)¹ warrant designating your facility as a concentrated animal feeding operation (CAFO) and, consequently, requiring a National Pollutant Discharge Elimination System (NPDES) permit for operation.

During the inspection, the following conditions were observed:

[NOTE THE CONDITIONS THAT SUPPORT THE CAFO DESIGNATION]

Based on these conditions, the [PERMITTING AUTHORITY] has determined that your facility is or has the potential to be a contributor of pollutants to the waters of the United States. As such, the [PERMITTING AUTHORITY] designates your operation as a CAFO, with the requirement of applying for an NPDES permit and taking immediate steps to cease existing discharges and eliminate the potential for future discharges.

To meet the requirement of applying for a permit for your facility, [PROVIDE SPECIFIC INSTRUCTION AS TO WHETHER THEY ARE REQUIRED TO APPLY FOR AN INDIVIDUAL PERMIT OR SUBMIT AN NOI FOR A GENERAL PERMIT. INCLUDE STEPS AS TO HOW TO GET PERMITTED]

The [PERMITTING AUTHORITY] may inspect your facility again in the near future. Please be advised that discharges such as that observed on [DATE] are in violation of the Clean Water Act and as such can subject you to enforcement action with penalties.

Sincerely,

Attachment

¹ An animal feeding operation is defined as a "lot or facility" where animals "have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility" [or alternate definition by the Permitting Authority].

Attachment to Sample Letter

If you are small business as defined by the Small Business Administration (defined at 13 CFR 121.201; in most cases, this means a business with 500 or fewer employees), below is information you may find helpful.

The United States Environmental Protection Agency (EPA) offers small business a wide variety of compliance assistance resources and tools designed to assist businesses to comply with federal and state environmental laws. These resources can help businesses understand their obligations, improve compliance and find cost-effective ways to comply through the use of pollution prevention and other innovative technologies.

Websites

EPA offers a great deal of compliance assistance information and materials for small businesses on the following Websites, available through public libraries:

!	www.epa.gov _____	EPA's Home Page
!	www.smallbiz-enviroweb.org	EPA's Small Business Home Page
!	www.smallbiz-enviroweb.org/state.html	List of State Contacts
!	www.epa.gov/ttn/sbap	Small Business Assistance Programs
!	www.epa.gov/oeca/polguid/index.html	Enforcement Policy and Guidance
!	www.epa.gov/oeca/smbusi.html	Small Business Policy
!	www.epa.gov/oeca/oc	Compliance Assistance Home Page
!	www.epa.gov/oeca/ccsmd/commpull.html	Small Business and Commercial Services
!	www.epa.gov/oeca/ccsmd/mun.html	Small Communities Policy

Hotlines

EPA sponsors approximately 89 hotlines and clearinghouses that provide free and convenient avenues to obtain assistance with environmental requirements. EPA's Small Business Ombudsman Hotline can provide you with a list of all the hotlines and assist you with determining which hotline will best meet your needs. Key hotlines that may be of interest to you include:

!	EPA's Small Business Ombudsman.....	(800) 368-5888
!	RCRA/UST/CERCLA Hotline.....	(800) 424-9346
!	Toxics Substances and Asbestos Information.....	(202) 554-1404
!	Safe Drinking Water.....	(800) 426-4791
!	Stratospheric Ozone/CFC Information.....	(800) 296-1996
!	Clean Air Technical Center.....	(919) 541-0800
!	Wetlands Hotline.....	(800) 832-7828

Compliance Assistance Centers

EPA has established national compliance assistance centers, in partnership with industry, academic institutions, and other federal and state agencies, that provide online and fax assistance services in the following sectors heavily populated with small businesses:

- Access to All Centers (www.epa.gov/oeca/mfcac.html)
- Metal Finishing (1-800-AT-NMFRC or <http://www.nmfrc.org>)
- Printing (1-888-USPNEAC or <http://www.pneac.org>)
- Automotive (1-888-GRN-LINK or <http://www.ccar-greenlink.org>)
- Agriculture (1-888-663-2155 or <http://www.epa.gov/oeca/ag>)
- Printed Wiring Board Manufacturing or <http://www.pwbrc.org>)
- The Chemical Industry (1-800-672-6048 or <http://www.chemalliance.org>)
- The Transportation Industry (<http://www.transource.org>)
- The Paints and Coatings Center (<http://www.paintcenter.org>)
- Local Governments (1-877-TO-LGEAN or <http://www.lgean.org>)

State Agencies

Many state agencies have established compliance assistance programs that provide on-site as well as other types of assistance. Please contact your local state environmental agency for more information. EPA's Small Business Ombudsman can provide you with State Agency contacts by calling (800) 368-5888.

Compliance Incentive Policies

EPA's Small Business Policy and Small Communities Policy are intended to promote environmental compliance among small businesses by providing incentives such as penalty waivers and reductions for participation in compliance assistance programs, and encouraging voluntary disclosure and prompt correction of violations. These policies cannot be applied to an enforcement action that has already been initiated. Contact Ginger Gotliffe (202-564-2310) for information on the Small Business Policy and Ken Harmon (202-564-2310) for information on the Small Communities Policy.

In order to improve your understanding of and compliance with environmental regulations and avoid the need for future enforcement actions, we encourage you to take advantage of these tools. **However, please note that any decision to seek compliance assistance at this time does not relieve you of your obligation to respond to an EPA request, administrative or civil complaint in a timely manner, does not create any new rights or defenses, and will not affect EPA's decision to pursue this enforcement action.**

The Small Business and Agriculture Regulatory Enforcement Ombudsman and ten Regional Fairness Boards were established to receive comments from small businesses about federal agency enforcement actions. The Ombudsman will annually rate each agency's responsiveness to small businesses. If you believe that you fall within the Small Business Administration's definition of a small business (based on your SIC designation, number of employees or annual receipts, defined at 13 CFR 121.201) and wish to comment on federal enforcement and compliance activities, call 1-888-734-3247). **However, participation in this program does not relieve you of your obligation to respond to an EPA request, administrative or civil complaint or other enforcement action in a timely manner nor create any new rights or defenses under law. In order to preserve your legal rights, you must comply with all rules governing the administrative enforcement process. The ombudsman and fairness boards do not participate in the resolution of EPA's enforcement action.**

Dissemination of this information sheet does not constitute an admission or determination by EPA that your business organization or government jurisdiction is a small entity as defined by the Small Business Enforcement and Fairness Act (SBREFA) or related provisions nor does it create any new rights or defenses under law.

Example Factors for Case-by-Case CAFO Designation

Designation Factor	Inspection Focus
<input type="checkbox"/> Size of the Operation and Amount of Waste Reaching Waters of the United States	<ul style="list-style-type: none"> • Number of animals • Type of feedlot surface • Feedlot design capacity • Waste handling/storage system design capacity
<input type="checkbox"/> Location of the Operation Relative to Waters of the United States	<ul style="list-style-type: none"> • Location of water bodies • Location of floodplain • Proximity to surface waters • Depth to groundwater, direct hydrologic connection to surface water
<input type="checkbox"/> Means of Conveyance of Animal Waste and Process Wastewaters into Waters of the United States	<ul style="list-style-type: none"> • Identify existing or potential man-made (includes natural and artificial materials) structures that may convey waste • Direct contact between animals and surface water
<input type="checkbox"/> Slope, Vegetation, Rainfall and Other Factors Affecting the Likelihood or Frequency of Discharge	<ul style="list-style-type: none"> • Slope of feedlot and surrounding land • Type of feedlot (concrete, soil, etc.) • Climate (e.g., arid or wet) • Type and condition of soils • Drainage controls • Storage structures • Amount of rainfall • Volume and quantity of runoff • Buffers
<input type="checkbox"/> Other Relevant Factors	<ul style="list-style-type: none"> • Waste handling and storage • Land application timing, methods, rates and areas

APPENDIX E

FORM 1 AND 2B NPDES PERMIT APPLICATIONS
(Not Included in Electronic Version; No Changes from Existing Forms)

APPENDIX F

SAMPLE NPDES PERMIT FOR CAFOS

Sample NPDES CAFO General Permit.

**NPDES GENERAL PERMIT
FOR
CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOs)**

[INSERT - AUTHORIZED NPDES PERMITTING AUTHORITY]

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

[Note: The intent of this sample NPDES General Permit for CAFOs is to suggest specific, comprehensive permit requirements that are consistent with the Guidance Manual. EPA encourages permitting authorities to use the recommendations of this Guidance Manual as appropriate.]

In compliance with provisions of the Clean Water Act, 33 USC 1251 et seq., the “Act”. [INSERT STATE REGULATORY CITATION AS APPROPRIATE]

Owners and operators of concentrated animal feeding operations (CAFOs), except those CAFOs excluded from coverage in Part I of this permit, are authorized to discharge and must operate their facility in accordance with effluent limitations, monitoring requirements, and other provisions set forth herein.

A copy of this permit must be kept by the permittee at the site of the permitted activity.

This permit will become effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION (General permit) or SIGNATURE (Individual Permit)]

This permit and the authorization to discharge under the NPDES shall expire at midnight [INSERT DATE 5 YEARS AFTER THE DATE ABOVE].

Signed this (Day) of (Month) and (Year).

[Permitting Authority—Official]

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PART I. PERMIT AREA AND COVERAGE

A. Permit Area

[The permitting authority should insert language that identifies the geographic area covered by the permit being issued. In the case of a general permit, it should identify the type of facilities and/or the geographic area covered by the permit. If the general permit is restricted to specific animal types and/or to certain size facilities, these limitation should be identified here. When issuing individual permits, this section of the permit should identify the specific facility covered by the permit.]

B. Permit Coverage

1. Who needs to be covered under this permit?

A permit is required for any CAFO that has had a discharge in the past, has a current discharge, or has a reasonable potential for a future discharge of pollutants to waters of the United States (also see Parts I.C, D, and E).

2. What does the NPDES permit for CAFOs cover?

NPDES permits issued to CAFOs cover the confinement, storage, and handling areas, as well as the land application activities under the control of the permitted CAFO owner/operator.

3. What constitutes a discharge from a CAFO?

A discharge of waste/wastewater is the discharge of pollutants from the animal confinement or storage and handling areas of a CAFO, or from the land application area(s) under the control of the CAFO operator, which enters: (1) surface waters, such as a river, stream, creek, wetland, lake, or other waters of the United States and/or (2) ground waters that have a direct hydrologic connection to surface water. Discharges covered by this permit include, but are not limited to, the following:

- Contaminated runoff from corrals, stock piled manure, and silage piles;
- Overflow from manure storage facilities, including secondary containment;
- Discharges associated with improper land application of manure and/or wastewater activities under the control of the CAFO operator;

- Manure and/or wastewater discharges from retention ponds, manure storage facilities, or lagoons, including discharges from secondary containment;
- Discharges of manure and/or wastewater due to pipe breakage or equipment failure; and
- Leaks or seepage from retention ponds, manure storage facilities, lagoons to ground water that has a direct hydrologic connection to surface waters, including seepage that results from the improper land application of manure and/or wastewater.

4. How do you determine if an animal feeding operation is a CAFO?

Review the following questions to determine if your facility is a CAFO.

- a) Have you been notified by the permitting authority that your facility meets the regulatory definition of a CAFO? **If yes, your facility is a CAFO. If no, proceed to question (b).**
- b) Do you own or operate a facility where animals have been, are, or will be stabled, confined and fed or maintained for a total of 45 days or more in any 12 month period? **If yes, proceed to question (c). If no, your facility is not a CAFO.**
- c) Are crops, vegetation (more than nominal vegetative growth), forage growth, or post-harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are maintained? **If no, proceed to question (d). If yes, your facility is not a CAFO.**
- d) Does your facility confine greater than the following number of animals:
 - 1,000 slaughter or feeder cattle,
 - 700 mature dairy cattle (whether milked or dry cows),
 - 2,500 swine each weighing over 25 kilograms (approximately 55 pounds),
 - 500 horses,
 - 10,000 sheep or lambs,
 - 55,000 turkeys,
 - 100,000 laying hens or broilers (if the facility has continuous overflow watering),

- 30,000 laying hens or broilers (if the facility has a liquid manure handling system*),
- 5,000 ducks, or
- 1,000 animal units (mixed animal types, the cumulative number of which exceeds 1000. See Part VI for the definition of Animal Unit, which explains how to calculate this number.)

If yes, your facility is a CAFO. If no, proceed to question (e).

e) Does your facility confine more than the following number of animals:

- 300 slaughter or feeder cattle,
- 200 mature dairy cattle (whether milked or dry cows),
- 750 swine each weighing over 25 kilograms (approximately 55 pounds),
- 150 horses,
- 3,000 sheep or lambs,
- 16,500 turkeys,
- 30,000 laying hens or broilers (if the facility has continuous overflow watering),
- 9,000 laying hens or broilers (if the facility has a liquid manure handling system*),
- 1,500 ducks, or
- 300 animal units (same as above)

If yes, proceed to question (f). If no, your facility is not a CAFO.

*An egg washing system is considered to be a liquid manure system. As eggs are conveyed from the cages to the processing/packaging facility, the poultry manure that has been deposited on the eggs is removed and the resulting wastewater is often land applied in liquid form.

f) Does your facility discharge directly (or have the potential to discharge directly) into waters of the United States which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation?

If yes, your facility is a CAFO. If no, proceed to question (g).

g) Does your facility discharge (or have the potential to discharge) into waters of the U.S. through a man-made ditch, flushing system or other similar man-made device? **If yes, your facility is a CAFO. If no, proceed to question (h).**

- h) Have you been notified by EPA, after an inspection, that your facility has been designated a CAFO? (The Regulations state that “the Director may designate any animal feeding operation as a CAFO upon determining that it is a significant contributor of pollution to the waters of the United States.”). **If yes, your facility is a CAFO.**

If you answered **YES** to questions (a), (d), (f), (g), **or** (h) above, your facility is a **CAFO**.

See Part VI of this permit for more details on the definition of a CAFO.

C. Eligibility for Coverage

Unless excluded from coverage in accordance with Paragraph D or F below, owners/operators of existing, currently operating animal feeding operations that are defined as CAFOs (Part VI—Definitions) are eligible for coverage under this permit. Owners/Operators of existing, currently operating CAFOs are authorized, under the terms and conditions of this permit, and upon the submission of a notice of intent (NOI; see Addendum A) to gain coverage under this NPDES general permit. Permittees must retain, on site, a copy of the permit and the comprehensive nutrient management plan (CNMP) as required by this permit, and submit a copy of the CNMP to the permitting authority upon request by the permitting authority (see Part III). A permittee may request to be excluded from coverage under this permit by: (1) submitting to EPA and State/Tribe agency (see Part I.E) a completed notice of termination form (see Addendum B); (2) providing documentation during the permit application process that the facility is in fact a “no discharge” facility (does not have a past or current discharge and does not have a reasonable potential for a future discharge); or (3) applying for an individual NPDES permit in accordance with Part I.F (2).

[The permitting authority should specify an overall approach that defines how CAFOs are to be permitted. This requires determining those types of CAFOs that will be addressed under either general (Statewide or watershed) or individual permits. The approach presented above is EPA’s recommended approach for covering CAFOs under an NPDES general permit. The approach should be modified, as necessary, to reflect specific permitting authority programmatic priorities and constraints. The permitting authority should also define what it determines to be “exceptionally large” CAFO facilities and CAFO facilities undergoing “significant expansion” with respect to CAFOs.]

D. Limitations on Coverage

The following CAFOs are not eligible for coverage under this NPDES general permit, but must apply for an individual permit: *[Specific eligibility limitations for the general permit should be determined by the NPDES permitting authority.]*

1. CAFOs that have been notified by the **[Permitting Authority]** to apply for an individual NPDES permit in accordance with Part I.F (below) of this permit.
2. Exceptionally large CAFOs *[To be determined by the permitting authority]*
3. CAFOs undergoing significant expansion *[To be determined by the permitting authority]*
4. CAFOs with historical non-compliance problems.

E. Application for Coverage

1. Owners/operators of CAFOs seeking to be covered by this permit (see Part I) must: (1) submit an NOI within **[Insert number of days]** days of the effective date of this permit; (2) comply with the conditions of the permit; and (3) develop and implement a CNMP consistent with the schedule in Section III. Owners/operators of new CAFOs must submit NOI and have a complete comprehensive nutrient management plan (CNMP) **[Insert number of days]** prior to commencement of operation.
2. The NOI or individual permit application must be signed by the owner/operator or other authorized person in accordance with Part V.E of this permit. A corporate entity that exercises substantial operational control over a CAFO is considered an operator of the CAFO and should be identified in the NOI.

[The permitting authority has the discretion to issue a permit for corporate entities and a permit for individual CAFOs or to issue one permit for both. In the case where a permit is issued separately for corporate entities, the permit may contain conditions that apply appropriate NPDES requirements to one or more CAFOs.]

3. Signed copies of the NOI or individual permit application must be sent to:

[Permitting Authority Address]

F. Requiring an Individual Permit

1. The **[Permitting Authority]** may require any facility authorized by this permit to apply for, and obtain, an individual NPDES permit. **[Permitting Authority]** will notify the operator, in writing, that an application for an individual permit is required within **[specify timeframe for application submission]**. Coverage of the facility under this general NPDES permit is automatically terminated when: (1) the operator fails to submit the required individual NPDES permit application within the defined timeframe; or (2) the individual NPDES permit is issued by **[Permitting Authority]**.
2. Any owner/operator covered under this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner/operator shall submit an application for an individual permit (Form 1 and Form 2B) with the reasons supporting the application to the **[Permitting Authority]** no later than 90 days after **[publication by the Permitting Authority of the general permit in the Federal Register (EPA), or in accordance with State law (where the State is the Permitting Authority)]**. If a final, individual NPDES permit is issued to an owner/operator otherwise subject to this general permit, the applicability of this NPDES CAFO general permit to the facility is automatically terminated on the effective date of the individual NPDES permit. Otherwise, the applicability of this general permit to the facility remains in full force and effect (for example, if an individual NPDES permit is denied to an owner/operator otherwise subject to this general permit).

G. Permit Expiration

This permit will expire five (5) years from the effective date. All CAFOs with coverage under the expired permit will continue to operate under the conditions of the expired permit until the effective date of a new permit.

PART II. PERMIT REQUIREMENTS

A. Effluent Limitations

[The permit writer will include either (1) technology-based effluent limitations, or (2) more stringent water quality-based effluent limitations where necessary to prevent discharges that would cause or contribute to an exceedance of water quality standards.]

The following effluent limitations apply to facilities covered under this permit:

- (1) *Technology-based Effluent Limitations:* There shall be no discharge of process wastewater pollutants to waters of the United States from the feedlot(s) or manure storage areas except when rainfall events, either **chronic or catastrophic**, cause an

overflow of process wastewater from a facility designed, constructed, maintained, and operated to contain:

- a. All process generated wastewater resulting from the operation of the CAFO; **plus,**
- b. All runoff from a 25 year, 24-hour rainfall event for the location of the CAFO.

For discharges associated with land application of process wastewater and/or manure under the control of the CAFO operator, the permittee must ensure that such activities comply with the requirements of Minimum Standard 9, in Table III.A, in Part III.A of this permit.

[This provision applies to all facilities that are subject to the Effluent Limitation Guidelines for Feedlots (40 CFR Part 412). In other cases, the permit writer is to establish technology-based limitations based on best professional judgment (“BPJ”). Where determined appropriate by the permit writer, BPJ-based limitations may be similar to the limitations shown above.]

- (2) *Water Quality-based Effluent Limitations:* There shall be no discharge of process wastewater pollutants from the feedlot(s) or manure storage areas to waters of the United States **except when catastrophic rainfall events** cause an overflow of process wastewater from a facility properly designed, constructed, maintained, and operated to contain:

- a. All process generated wastewater resulting from the operation of the CAFO; **plus,**
- b. All runoff from a 25 year, 24-hour rainfall event for the location of the CAFO.

[This provision is only appropriate where necessary to meet State water quality standards.]

For discharges associated with land application of process wastewater and/or manure under the control of the CAFO operator, the permittee must ensure that such activities comply with the requirements of Minimum Standard 9, in Table III.A, in Part III.A of this permit.

The permittee is required to comply with the special conditions established in Part III of this permit. These special conditions consist of compliance with minimum standards to

protect water quality (Part III A), the development and implementation of a site-specific CNMP within [timeframe] (Part III B), and other special conditions established by the permitting authority (Part III C).

B. Discharge Prohibition

The effluent limitations above include, but are not limited to, the following discharge prohibition:

Discharge of manure and/or process wastewater pollutants from control structures, such as lagoons, to groundwater with a direct hydrologic connection to surface waters of the United States.

C. Other Legal Requirements

No condition of this permit shall release the permittee from any responsibility or requirements under other statutes or regulations, Federal, State/Indian Tribe or Local.

PART III. SPECIAL CONDITIONS

A. Minimum Standards to Protect Water Quality

This permit identifies (See Table III.A below) specific minimum standards that the permittee must meet to prevent pollutants from manure and/or wastewater from entering waters of the U.S., including standards that address proper land application of manure and wastewater. The minimum standards (or portions thereof) that must be implemented immediately upon issuance of this permit are indicated by an asterisk (*). The permittee must comply with the remaining minimum standards (or portions thereof) in accordance with the enforceable schedule for developing and implementing a CNMP, which is established in Section III. B. of this permit. All of the minimum standards to protect water quality must be incorporated into the site-specific CNMP developed and implemented for the permitted facility.

Table III.A. Minimum Standards to Protect Water Quality in NPDES Permits for CAFOs

<p>Each of the following minimum standards is designed to achieve the objective of preventing discharges of pollutants to waters of the U.S. from CAFOs and from land application activities under the operational control of the CAFO. Minimum standards or portions of minimum standards to be implemented on the effective date of the permit are identified with an asterisk (*). In addition to these minimum standards, permittees are also required to comply with other applicable technology-based and water quality-based effluent limitations (see Sections 3.2.1 and 3.2.2, respectively).</p>
<p>1. MINIMUM STANDARD: BUFFERS OR EQUIVALENT PRACTICES</p> <p>Provide and maintain buffer strips or other equivalent practices near feedlots, manure storage areas, and land application areas that are sufficient to minimize discharge of pollutants to waters of the United States (e.g., soil erosion and manure and wastewater). These practices may include but are not limited to residue management, conservation crop rotation, grassed waterways, strip cropping, vegetative buffers, forested riparian buffers, terracing, and diversion.</p>
<p>2. MINIMUM STANDARD: DIVERT CLEAN WATER</p> <p>*Design and implement management practices to divert clean water and floodwaters from contact with feedlots and holding pens; animal manure; or manure and/or process wastewater storage systems. Clean water includes rain falling on the roofs of facilities, runoff from adjacent land, or other sources.</p>
<p>3. MINIMUM STANDARD: PREVENT DIRECT CONTACT OF ANIMALS WITH WATERS OF THE UNITED STATES</p> <p>*Develop and implement appropriate controls to prevent direct access of animals in confinement to waters of the United States to protect water quality.</p>
<p>4. MINIMUM STANDARD: ANIMAL MORTALITY</p> <p>*Handle and dispose of dead animals in a manner that prevents contamination of surface waters of the United States (including contamination of groundwater with a direct hydrological connection to surface waters).</p>
<p>5. MINIMUM STANDARD: CHEMICAL DISPOSAL</p> <p>*Prevent introduction of chemicals into manure and wastewater storage structures for purposes of disposal. Examples include pesticides, hazardous and toxic chemicals, and petroleum products/by-products.</p>
<p>6. MINIMUM STANDARD: PROPER OPERATION AND MAINTENANCE</p> <p>*Implement an operation and maintenance program that involves periodic visual inspection and maintenance of all manure storage and handling equipment and structures and all runoff management devices (e.g., cleaning separators, barnyards, catch basins, screens, annual calibration of land application equipment, maintenance of filter strips) and to minimize discharges of pollutants to surface water and to groundwater that is hydrologically connected to surface water.</p> <p>All manure application equipment must be tested and calibrated annually to ensure proper application rates.</p>

Table III.A. (CONTINUED)

7. MINIMUM STANDARD: RECORD KEEPING AND TESTING

*Maintain a log that documents the visual inspections, findings, and preventative maintenance activities.

*Document the date, rate, location, type of crops, and methods used for application of manure and wastewater as well as other nutrients to land under the control of the CAFO operator.

Where manure and wastewater are not applied on land under the operational control of the CAFO operator, maintain a record of the transfer of the manure off-site (see Section 3.3.3.2 of this guidance).

*Record the results of annual manure and wastewater sampling to determine nutrient content.

*Record the results of representative soil sampling and analyses conducted at least every three years to determine nutrient content.

8. MINIMUM STANDARD: MAINTAIN PROPER STORAGE CAPACITY

Maintain sufficient freeboard in liquid manure storage structures to ensure compliance with the permit conditions.

*Store dry manure in production buildings or in storage facilities or otherwise store in such a way as to prevent polluted runoff (e.g., located on relatively flat land, away from water bodies, wetlands, and wells, and/or surrounded by a berm or buffer).

Provide adequate storage capacity so that land application occurs only during periods when land or weather conditions are suitable for manure and wastewater application. (See Minimum Standard 9 below.)

9. MINIMUM STANDARD: RATES AND TIMING OF LAND APPLICATION OF MANURE AND WASTEWATER

*Land apply manure and/or wastewater in accordance with proper agricultural practices.

Land apply manure and/or wastewater in accordance with land application rates developed on a site-specific basis as needed to protect water quality. At a minimum, land application rates should (1) prevent application of nutrients at rates that will exceed the capacity of the soil and the planned crops to assimilate nutrients and minimize water pollution; and (2) be quantified and based on the most limiting nutrient in the soil (e.g., phosphorus or nitrogen), type of crop, realistic crop yields, soil type, and all nutrient inputs in addition to those from manure and wastewater.

*Manure and wastewater should not be applied on land that is flooded, saturated with water, frozen or snow covered at the time of land application where the manure and wastewater may enter waters of the United States.

*Land application of manure and wastewater is prohibited during rainfall events and should be delayed if precipitation with the potential to create manure and/or wastewater runoff into waters of the United States is forecast within 24 hours of the planned application.

B. Comprehensive Nutrient Management Plan (CNMP)

1. Elements of a CNMP

Each CAFO covered by this permit shall develop and implement a site-specific CNMP that includes the following elements as appropriate to the needs and circumstances of the permitted facility: animal outputs; manure handling and storage; land application of manure and wastewater; site management; record keeping; and other manure utilization options. The CNMP must be developed and implemented to meet all of the minimum standards identified in Section A of this Part to protect water quality that are applicable to the permitted facility. **[Note: Consider additional requirements for the CNMP to address all relevant operation and maintenance activities in accordance with current State and United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) current technical standards and USDA’s CNMP technical guidance document.]** The CNMP must be designed and implemented to meet the requirements of the CWA.

Each CNMP shall specifically identify and describe practices that are to be implemented to assure compliance with the limitations and conditions of this permit. The CNMP shall identify a specific individual(s) at the facility responsible for its implementation. The activities and responsibilities of such personnel must be described in the CNMP. CNMPs are to be developed as a special condition of the NPDES permit, and must contain the following information:

- a) Existing Facility Plans: Where a facility has previously prepared information that supports one or more of the five elements of a CNMP as outlined in the “NRCS Technical Guidance for Developing CNMPs,” the CAFO may adopt this information for incorporation into the facility-specific CNMP.
 - b) Signatory Requirements: The CNMP shall be signed by the owner/operator (co-permittee) or other signatory authority in accordance with Part V.E (Signatory Requirements).
 - c) The **[Permitting Authority]** or authorized representative may notify the permittee, at any time, that the CNMP does not meet one or more of the minimum requirements of this Part. The permittee shall make changes to the CNMP within 90 days after such notification unless otherwise provided by the **[Permitting Authority]**.
- ### 2. Schedule for Developing, Submitting, and Implementing a CNMP

Following the submission of the NOI, any CAFO covered by this NPDES general permit shall develop and implement a CNMP **[Permitting Authority to insert schedule for developing and implementing the CNMP no later than the end of**

2003, including interim milestones as determined to be appropriate.]. The permittee must notify the permitting authority in writing within thirty days following the completed development of the site-specific CNMP.

3. Certified Specialists to Develop CNMPs

The CNMP must be developed or modified by a “certified specialist” defined by **[Permitting Authority to insert State or governmental agency]**. The **[Permitting Authority or other State agency]** will specify the requirements for certification. While the permittee may seek such assistance from an outside source, it is the permittee’s sole responsibility to assure that the effective implementation of the CNMP results in compliance with all permit conditions.

4. CNMP is to be Maintained On Site

A current copy of the CNMP shall be kept on site in accordance with Part V.C (Retention of Records) of this permit and provided to the permitting authority upon request of the permitting authority.

5. Duty to Amend the CNMP

The permittee must amend the CNMP whenever: (1) the facility makes a substantive change in how it manages its operations, including the location, method, timing or frequency of land application; or (2) a discharge occurs in violation of this NPDES permit. Where the facility is located in an impaired watershed, CNMPs should also be reviewed and amended, as needed, as part of the TMDL process. The facility must complete and submit to **[Permitting Authority]** an annual certification that the CNMP has been reviewed to assess its adequacy in protecting water quality (See Addendum C).

C. Additional Special Conditions

Emergency Discharge Impact Abatement: Discharges authorized by Part II.A(1) of this permit must, where practicable, be properly discharged to land application fields or held in secondary containment for filtering to minimize discharge to waters of U.S.

Irrigation Control: Irrigation systems shall be managed so as to reduce or minimize: (1) ponding or puddling of wastewater on land application fields; (2) contamination of ground and surface water; and (3) the occurrence of nuisance conditions such as odors and flies.

Spills: Appropriate measures necessary to prevent spills and to clean up spills of any toxic and other pollutants shall be taken. If possible spills are anticipated, materials handling

procedures and storage must be specified in the CNMP. Procedures for cleaning up spills shall be identified, and the necessary equipment to implement clean up shall be made available to facility personnel. All spills must be reported to EPA and State/Indian Tribe authorities.

Measurement of Rainfall: A rain gauge shall be kept on site and properly maintained. A log of all measurable rainfall events shall be kept by the CAFO operator/owner.

Liner Requirement: Where a direct hydrologic connection through ground water exists, the ponds, lagoons and basins of the retention structure must have a liner which will prevent the potential contamination of surface waters.

Employee Training: Where employees are responsible for work activities which relate to permit compliance, those employees must be regularly trained or informed of any information pertinent to the proper operation and maintenance of the facility and waste disposal. Training shall include topics as appropriate such as land application of wastes, proper operation and maintenance of the facility, good housekeeping and material management practices, necessary record-keeping requirements, and spill response and clean up. The permittee is responsible for determining the appropriate training frequency for different levels of personnel and the CNMP shall identify periodic dates for such training.

Facility Closure: The following conditions shall apply to the closure of lagoons and other earthen or synthetic lined basins and other manure handling and wastewater facilities:

a. Closure of Lagoons and Other Earthen Basins

No lagoon or other earthen or synthetic lined basin shall be permanently abandoned.

Lagoons and other earthen or synthetic lined basins shall be maintained at all times until closed in compliance with this section.

All lagoons and other earthen or synthetic lined basins must be properly closed if the permittee ceases operation. In addition, any lagoon or other earthen or synthetic lined basin that is not in use for a period of twelve consecutive months must be properly closed unless the facility is financially viable, intends to resume use of the structure at a later date, and either: (1) maintains the structure as though it were actively in use, to prevent compromise of structural integrity; or (2) removes manure and wastewater to a depth of one foot or less and refills the structure with clean water to preserve the integrity of the synthetic or earthen liner. In either case, the permittee shall notify the **[Permitting Authority]** of the action taken, and shall conduct routine inspections, maintenance, and record-keeping as though the structure were in use. Prior to restoration of use of the structure, the permittee shall notify the **[Permitting Authority]** and provide the opportunity for inspection.

All closure of lagoons and other earthen or synthetic lined basins must be consistent with [**Provide cite to NRCS standards, currently set forth in Field Technical Guide No. 998, Interim Standard for Closure of Abandoned Waste Treatment Lagoons and Waste Storage Ponds**]. Consistent with NRCS standards, the permittee shall remove all waste materials to the maximum extent practicable and dispose of them in accordance with the permittee's CNMP, unless otherwise authorized by the [**Permitting Authority**]. If the permittee plans to land apply lagoon sludge, the CNMP should have special conditions for such application based on the most limiting contaminant in the waste.

Unless otherwise authorized by the [**Permitting Authority**], completion of closure for lagoons and other earthen or synthetic lined basins shall occur as promptly as practicable after the permittee ceases to operate or, if the permittee has not ceased operations, 12 months from the date on which the use of the structure ceased, unless the lagoons or basins are being maintained for possible future use in accordance with the requirements above.

b. Closure Procedures for Other Manure and Wastewater Facilities

No other manure or wastewater control and retention structure shall be abandoned. Closure of all such structures shall occur as promptly as practicable after the permittee has ceased to operate, or, if the permittee has not ceased to operate, within 12 months after the date on which the use of the structure ceased. To close a manure or wastewater control and retention structure, the permittee shall remove all manure and wastewater and dispose of it in accordance with the permittee's CNMP, unless otherwise authorized by the [**Permitting Authority**].

D. Requirements for Land Application Activities Not Under the Control of the Permitted CAFO Operator.

In cases where CAFO-generated manure is sold or given away to be used for land application activities that are not under the operational control of the permitted CAFO, such land application does not need to be addressed in the permitted CAFO's CNMP. However, the permittee must ensure the environmentally acceptable use of the CAFO-generated manure by complying with the following conditions:

- Maintain records showing the date and amount of manure and/or wastewater that leaves the permitted operation;
- For quantities of greater than one pick-up truck load per recipient per day, record the name and address of the recipient;
- Provide the recipient(s) with representative information on the nutrient content of the manure and/or wastewater to be used in determining the appropriate land application rates; and

- Inform the recipient of his/her responsibility to properly manage the land application of the manure and/or wastewater to minimize the discharge of pollutants to waters of the U.S.

These records should be retained on-site, and should be submitted to the permitting authority upon request.

PART IV. DISCHARGE MONITORING AND NOTIFICATION REQUIREMENTS

A. Notification of Discharges from Retention Structures and Improper Land Application

If, for any reason, there is a discharge of pollutants to a water of the U.S., the permittee is required to make immediate oral notification within 24-hours to the **[Permitting Authority (Contact Number)]** and notify the **[Permitting Authority]** in writing within five (5) working days of the discharge from the facility. In addition, the permittee shall keep a copy of the notification submitted to the [Permitting Authority] together with the CNMP. The discharge notification shall include the following information:

1. Description of the discharge: A description of the discharge and its cause, including a description of the flow path to the receiving water body and an estimate of the flow and volume discharged.
2. Time of the discharge: The period of non-compliance, including exact dates and times, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the discharge.

B. Monitoring Requirements for Discharges from Retention Structures

In the event of any overflow or other discharge of pollutants from a manure and/or wastewater storage structure, the following actions shall be taken:

1. Analysis of the discharge: All discharges shall be sampled and analyzed. Samples must, at a minimum, be analyzed for the following parameters: fecal coliform bacteria; five-day biochemical oxygen demand (BOD₅); total suspended solids (TSS); total phosphorus as phosphorus; dissolved phosphorus as phosphorus; ammonia-nitrogen as nitrogen; TKN as nitrogen; nitrate; pH; metals; and temperature.
2. Estimate volume of the discharge: Record an estimate of the volume of the release and the date and time.
3. Sampling procedures: Samples shall consist of grab samples collected from the overflow or discharges from the retention structure. A minimum of one sample shall be collected from the initial discharge (within 30 minutes). The sample shall be collected and analyzed in accordance with EPA approved methods for water analysis listed in 40 CFR 136. Samples collected for the purpose of monitoring shall be representative of the monitored discharge. Monitoring results must be submitted to the permitting authority within 30 days.

4. Reasons for not sampling: If conditions are not safe for sampling, the permittee must provide documentation of why samples could not be collected. For example, the permittee may be unable to collect samples during dangerous weather conditions (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.). However, once dangerous conditions have passed, the permittee shall collect a sample from the retention structure (pond or lagoon) from which the discharge occurred.

C. General Inspection, Monitoring, and Record Keeping Requirements

The permittee shall inspect, monitor, and record the results of such inspection and monitoring in accordance with Table IV.C:

IV.C. PERIODIC INSPECTION AND MONITORING REQUIREMENTS

PARAMETER	UNITS	FREQUENCY
Facility inspection¹		
Review all facilities and land application areas addressed in the CAFO's CNMP to evaluate whether measures to reduce pollutant loadings identified in the CNMP are adequately and properly implemented in accordance with the terms of the permit or whether additional control measures are needed	NA	Annually
Lagoon or storage structure monitoring and inspection		
Freeboard ²	Feet	Weekly
Structural integrity (i.e., integrity of berms) ³	NA	Weekly
Integrity of liners and absence of a hydrologic connection ⁴	NA	Once/5 years
Sampling of waste/wastewater and land application soils⁵		
Sample waste and wastewater to determine available nutrient content (nitrogen and phosphorus)	ppm	Conduct initial sampling. Then sample at least once per year thereafter.
Sample land application soils to determine nutrient content (nitrogen and phosphorus)	Pounds per acre	Conduct initial sampling. Then sample at least once every three years thereafter.

Table IV.C (CONTINUED)		
Land application activities		
Duration of land application activities ⁵	Hours/day	Daily
Quantity of waste/wastewater applied to land application fields ⁵	Gallons/day or CubicFeet/day	Daily
Application rate ⁵	lb/acre	Daily
Application area ⁵	Acres	Daily
Precipitation		
Rainfall ⁶	Inches	Daily

Footnotes:

¹ A complete inspection of the facility shall be done and a report made annually.

² For lagoons or other liquid storage basins, report the water level as feet below the emergency overflow level. For solid manure storage structures, report the percentage of remaining storage capacity.

³ Documentation of compliance with this requirement must be compiled in an inspection report to be kept at the facility.

⁴ Permittee shall document compliance with this requirement by preparing a report that must be kept at the facility.

⁵ Monitor during periods of land application only. Land application practices must be conducted in accordance with the permittee's CNMP.

⁶ The permittee shall maintain a precipitation gauge at each permitted facility and record the rainfall for each 24-hour period.

D. Additional Monitoring Requirements

Additional analysis: Upon request by **[Permitting Authority]**, the permittee may be required to collect and analyze samples including but not limited to soils, surface water, ground water, and/or stored waste in a manner and frequency specified by **[Permitting Authority]**.

Additional monitoring for some high risk operations: Upon notification by **[Permitting Authority]**, the permittee may be required to conduct ambient monitoring of surface and/or groundwater. For example, facilities with historical compliance problems, especially large facilities, facilities with significant environmental concerns, or facilities impacting impaired water bodies. **[The permitting authority should establish appropriate ambient surface and groundwater monitoring requirements in the NPDES permit.]**

PART V. STANDARD PERMIT CONDITIONS

A. General Conditions

1. Introduction: In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the “Act”) as well as ALL applicable regulations.
2. Duty to Comply: The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation, and reissuance; for denial of a permit renewal application; and/or for requiring a permittee to apply for and obtain an individual NPDES permit.
3. Toxic pollutants: The permittee shall comply with effluent standards and prohibitions established under section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
4. Permit actions: This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
5. Property rights: The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State/Tribal or local laws or regulations.
6. Duty to provide information: The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
7. Criminal and Civil Liability: Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.
8. State/Tribal Laws: Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State/Tribal law or regulation under authority preserved by Section 510 of the Act.
9. Severability: The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. Proper Operation and Maintenance

1. Need to halt or reduce activity not a defense: It shall not be a defense for a permittee in an enforcement action to plead that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
2. Duty to mitigate: The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
3. Proper operation and maintenance: The permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

C. Monitoring and Records

1. Inspection and entry: The permittee shall allow the **[Permitting Authority]** or EPA, or an authorized representative of **[Permitting Authority]** or EPA, upon the presentation of credentials and other documents as may be required by law, to:
 - a) Enter the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
 - d) Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.
2. Representative sampling: Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
3. Retention of records: The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the permitting authority at any time.
4. Record content: Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.

5. Monitoring procedures:
 - a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
 - b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
 - c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

D. Reporting Requirements

1. Anticipated Noncompliance: The permittee shall give advance notice to the **[Permitting Authority]** of any planned physical alterations or additions or changes in activity which may result in noncompliance with requirements in this permit.
2. Transfers: This permit is not transferable to any person except after notice to the **[Permitting Authority]**. The **[Permitting Authority]** may require modification or revocation and reissuance of the permit to change the name or the permittee and incorporate such other requirements as may be necessary under the CWA.
3. Twenty-four hour reporting: The permittee shall report any noncompliance that may endanger human health or the environment. Any information must be provided orally to within 24 hours from the time that the permittee becomes aware of the circumstances to **[Insert Permitting Authority contact information]**. A written submission shall also be provided to **[Permitting Authority]** within five (5) days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:
 - a) A description of the noncompliance and its cause;
 - b) The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
4. Other information: Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the **[Permitting Authority]**, it shall promptly submit such facts or information to the **[Permitting Authority]**.

E. Signatory requirements

All applications, reports, or information submitted to the **[Permitting Authority]** shall be signed and certified consistent with 40 CFR §122.22:

1. **All permit applications** shall be signed as follows:

- a) For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; or
 - b) For a partnership or sole proprietorship: By a general partner for a partnership or the proprietor, respectively.
2. All reports required by the permit and other information requested by the **[Permitting Authority]** shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a) The authorization is made in writing by a person described above;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or any individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
 - c) The written authorization is submitted to the **[Permitting Authority]**.

F. Certification

Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G. Availability of Reports

Any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

H. Penalties for Violations of Permit Conditions

1. Criminal Penalties

- a) Negligent violations: The Act provides that any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act or any condition or limitation implementing those provisions in a permit issued under Section 402 is subject to a fine of not less than \$2,750 nor more than \$27,500 per day of violation, or by imprisonment for not more than one year, or both.
- b) Knowing violations: The Act provides that any person who knowingly violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act or any permit conditions implementing those provisions is subject to a fine of not less than \$5,500 nor more than \$55,000 per day of violation, or by imprisonment for not more than three years, or both.
- c) Knowing endangerment: The Act provides that any person who knowingly violates Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act or permit conditions implementing those provisions and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$275,000, or by imprisonment for not more than 15 years, or both.
- d) False statements: The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$11,000, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$22,000 per day of violation, or by imprisonment of not more than four years, or by both. [See Section 309(c)4 of the Clean Water Act]

2. Civil penalties

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation. [See Section 309(d)]

3. Administrative penalties

The Act provides that the Administrator may assess a Class I or Class II administrative penalty if the Administrator finds that a person has violated Sections 301, 302, 306, 307, 308, 318, or 405 of the Act or a permit condition or limitation implementing these provisions, as follows [See Section 309(g)]:

- a) Class I penalty: Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

- b) Class II penalty: Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

PART VI. DEFINITIONS

25-year, 24-hour rainfall event means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

Animal feeding operation means a lot or facility (other than an aquatic animal production facility) where the following conditions are met: (i) animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single animal feeding operation if they adjoin each other, or if they use a common area or system for the disposal of wastes.

Animal unit means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

Application means the EPA standard national forms for applying for an NPDES permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions [e.g. for NPDES general permits, a written "notice of intent" pursuant to 40 CFR 122.28; for NPDES individual permits, Form 1 and 2B pursuant to 40 CFR 122.1(d)].

Catastrophic rainfall event is equivalent to a 25-year, 24-hour storm event. Catastrophic events include tornadoes, hurricanes, or other catastrophic conditions that would cause an overflow from the waste retention structure that is designed, constructed, operated, and maintained to meet all the requirements of this permit.

Chronic rainfall is a series of wet weather conditions that precludes dewatering of properly maintained waste retention structures.

Concentrated animal feeding operation (CAFO) means an "animal feeding operation" which meets the criteria in 40 CFR Part 122, Appendix B, or which the Director designates (see definition of designation below) as a significant contributor of pollution pursuant to 40 CFR 122.23. Animal feeding operations defined as "concentrated" in 40 CFR 122 Appendix B are as follows:

- a. Operations that stable or confine and feed or maintain for a total of 45 days or more in any 12-month period more than the numbers of animals specified in any of the following categories:
 - 1. 1,000 slaughter or feeder cattle,

2. 700 mature dairy cattle (whether milked or dry cows),
 3. 2,500 swine each weighing over 25 kilograms (approximately 55 pounds),
 4. 500 horses,
 5. 10,000 sheep or lambs,
 6. 55,000 turkeys,
 7. 100,000 laying hens or broilers (if the facility has continuous overflow watering),
 8. 30,000 laying hens or broilers (if the facility has a liquid manure handling system),
 9. 5,000 ducks, or
 10. 1,000 animal units (see definition of Animal Unit above); or
- b. Operations where pollutants are discharged into waters of the U.S. either: (a) through a man-made ditch, flushing system, or other similar man-made device; or (b) directly into waters of the U.S. which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the confined animals, and which stable or confine and feed or maintain for a total of 45 days or more in any 12-month period more than the numbers or types of animals in the following categories:
1. 300 slaughter or feeder cattle,
 2. 200 mature dairy cattle (whether milked or dry cows),
 3. 750 swine each weighing over 25 kilograms (approximately 55 pounds),
 4. 150 horses,
 5. 3000 sheep or lambs,
 6. 16,500 turkeys,
 7. 30,000 laying hens or broilers (if the facility has continuous overflow watering),
 8. 9000 laying hens or broilers (if the facility has a liquid manure handling system),
 9. 1,500 ducks, or
 10. 300 animal units (see definition of Animal Unit above)

Provided, however, that no animal feeding operation is a concentrated animal feeding operation as defined above if such animal feeding operation discharges only in the event of a 25-year, 24-hour storm event.

Designation means that the permitting authority may designate any animal feeding operation as a concentrated animal feeding operation upon determining that it is a significant contributor of pollution to waters of the U.S.. In making this determination, the permitting authority shall consider the following factors:

1. The size of the animal feeding operation and the amount of wastes reaching waters of the United States,
2. The location of the animal feeding operation relative to waters of the United States,

3. The means of conveyance of animal wastes and process wastewater to waters of the United States,
4. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes and process wastewater into waters of the United States, and
5. Other relevant factors.

No animal feeding operation with less than the numbers of animals set forth in 40 CFR §122 Appendix B shall be designated as a concentrated animal feeding operation unless: (1) pollutants are discharged into waters of the U.S. through a manmade ditch, flushing system, or other similar manmade device; or (2) pollutants are discharged directly into waters of the U.S. which originate outside of the facility and pass over, across or through the facility or otherwise come into direct contact with the animals confined in the operation.

Ground water means water below the land surface in a zone of saturation (40 CFR §258.2)

Land application means the application of manure and/or wastewater onto or incorporation into the soil.

Liner means any barrier in the form of a layer, membrane or blanket, installed to prevent discharges to waters of the U.S.

Notice of Intent (NOI) is a form submitted by the owner/operator applying for coverage under a general permit. It requires the applicant to submit the information necessary for adequate program implementation, including, at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, and the receiving stream(s). [(40 CFR §128.28(b)(2)(ii)].

Nutrient Balance means determining the proper rate and timing of nutrients (e.g. nitrogen and phosphorous) required to grow the planned crop by balancing the nutrients that are already in the soil and from other sources with those that will be applied in manure, biosolids, and commercial fertilizer. At a minimum, a nutrient balance determination should be based on preventing the application of nutrients at rates that will exceed the capacity of the soil and planned crops to assimilate nutrients and prevent water pollution; and be quantified and based on the most limiting nutrient in the soil (e.g. phosphorous or nitrogen), type of crop, realistic crop yields, soil type, and all nutrient inputs in addition to those from manure and wastewater. CNMPs that establish the appropriate rate and timing for land application of manure and wastewater should be developed for the CAFO by the USDA-NRCS or any third party vendor certification programs that may include, but are not limited to: 1) American Society of Agronomy's certification programs, including Certified Crop Advisors (CCA) and Certified Professional Agronomists (CPAg), Crop Scientists (CPCSc), and Soil Scientists (CPSSc); 2) Land Grant University certification programs; 3) National Alliance of Independent Crop Consultants (NAICC); and State certification programs.

Process wastewater means any process-generated wastewater and any precipitation (e.g., rain or snow) which comes into contact with any manure, litter or bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animals or poultry or direct products (e.g., milk, eggs).

Process-generated wastewater means any water directly or indirectly used in the operation of a feedlot for any of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning or flushing pens, barns, manure pits, or other feedlot facilities; direct contact swimming, washing or spray cooling of animals; and dust control.

Qualified groundwater scientist means a scientist, or engineer who has received a baccalaureate or post-graduate degree in natural sciences, or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by State registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgements regarding ground-water monitoring, contaminant fate and transport, and corrective action [40 CFR 258.50 (g)]

Retention facilities or retention structures means all collection ditches, conduits and swales for the collection of runoff and wastewater, and all basins, ponds and lagoons used to store wastes, wastewater and manures.

Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

The Act means Federal Water Pollution Control Act as amended, also known as the Clean Water Act as amended, found at 33 USC 1251 et seq.

Toxic pollutants means any pollutant listed as toxic under Section 307(a)(1) of the Act.

Waters of the United States means: (1) all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; (2) all interstate waters, including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, and streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (a) which are or could be used by interstate or foreign travelers for recreational or other purposes; from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or, which are or could be used for industrial purposes by industries in interstate commerce; (4) all impoundments of waters otherwise defined as waters of the U.S.; (5) tributaries of waters identified in (1) through (4) of this definition; (6) the territorial sea; and (7) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items (1) through (6) of this definition.

PART VII. PERMITTING AUTHORITY SPECIFIC PERMIT CONDITIONS
[Insert any Permitting Authority Specific Permit Conditions]

ADDENDUM A - NOTICE OF INTENT FORM

**Concentrated Animal Feeding Operation (CAFO)
Notice of Intent to be Covered Under the National Pollutant Discharge Elimination System Permit**

Submission of this Notice of Intent with a completed Certification B constitutes notice that the party(ies) identified in Section I of this form intends to be authorized by an NPDES permit for waste water discharges associated with a Concentrated Animal Feeding Operation in the State identified in Section II of this form. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Contact Information

Operator Name: _____ Phone: () _____
 Address: _____ Fax: () _____
 City: _____ State: _____ ZIP Code: _____ - _____

Owner Name (if different from Operator): _____ Phone: () _____
 Address: _____ Fax: () _____
 City: _____ State: _____ ZIP Code: _____ - _____

Status of Owner/Operator: F = Federal; S = State; M = Public (other than federal or state); P = Private

Does a corporate entity either direct the activity of persons working at the facility identified in Section II of this NOI through a contract or direct supervision or participate in on-site activities?

No Yes - Name of corporate entity _____

Does a corporate entity own the animals confined at the facility identified in Section II?

No Yes - Name of corporate entity _____

Does a corporate entity specify how the animals confined at the facility identified in Section II are grown, fed, or medicated?

No Yes - Name of corporate entity _____

II. Facility Information

Name: _____ Phone: () _____
 Address: _____ Fax: () _____
 City: _____ State: _____ ZIP Code: _____
 County: _____ Latitude: _____ Longitude: _____

State Permit Number (if applicable): _____ Receiving Stream: _____

Is this facility located within a 303(d)- or state priority-listed watershed?

No Yes - Name of watershed: _____

III. Description of Operation

Number of Animals Managed

Give the maximum number of each type of animal in open confinement or housed under roof (either partially or totally) which are held at this facility for a total of 45 days or more in any 12 month period. Attach additional sheets if necessary.

Animal Type	Number of Animals	Animal Type	Number of Animals
_____	_____	_____	_____
_____	_____	_____	_____

Does this facility include a retention structure(s) designed to store process waste water and runoff flow from a 25-year, 24-hour storm event? No Yes

Area Available for Land Application
 _____ acres

How many? _____

Certifications

Certification A

I understand that the permit requires the preparation of a Comprehensive Nutrient Management Plan (CNMP) for the facility described in this NOI. I agree to prepare and implement a CNMP in accordance with the requirements and timelines specified in the permit.

Signature

Date

Print Name

Certification B

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date

Print Name

Co-Permittee Signature

Date

Print Name

Instructions—Concentrated Animal Feeding Operation (CAFO) Notice of Intent (NOI) to be Covered Under the National Pollutant Discharge Elimination System Permit

Who Must Fill Out a Notice of Intent (NOI) Form

Federal law 40 CFR Part 122 prohibits the release of any discharge associated with concentrated animal feeding operations (CAFOs) to any water body(ies) of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. Operators of a CAFO must obtain and submit a NOI form to be covered under the NPDES CAFO General Permit or to certify that the facility does not require permit coverage (the facility does not discharge). To obtain additional information regarding the NPDES CAFO permit, or to determine whether you require a permit, contact [insert permitting authority contact information].

Where To File the NOI Form

NOIs must be sent to the following address:

[insert NOI processing center address]

Completing the Form

NOI forms must be completed in type or print in the appropriate marked areas. If you have any questions about filling out this form, contact [insert permitting authority contact information].

Section I. Contact Information

Provide the legal name of the person, firm, organization, or any other entity which controls the operation of the facility in question. You must also provide the name of the facility owner, if different from that of the operator. Do not use a colloquial name. Enter the complete address and telephone number of the operator and owner. Enter the appropriate letter to indicate the legal status of the operator of the facility. If the owner or operator of the facility is a contract grower, please answer the questions regarding the nature of this contract and the legal name of the entity with whom the contract is held.

Section II. Facility Information

Provide the complete address for the facility, including street address, city, state, and ZIP code. Do not provide a P.O. Box number as the street address. Provide the phone and fax numbers for the facility. Indicate the county and the latitude and longitude to the nearest 15 seconds, or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site.

Enter a check in the appropriate box to indicate whether the site is located within a 303(d)- or state priority-listed watershed. These terms refer to impaired watersheds designated by the U.S. or state governments. If yes, enter the complete name of the listed watershed. To determine if the facility is located in a 303(d)- or state priority-listed watershed, contact [insert permitting authority contact information]

Section III. Description of Operation

Provide information regarding the number of each type of animal managed in open confinement and/or housed under roof (partially or totally) for 45 days or more within a 12 month period. An additional sheet may be attached if the information does not fit in the provided space.

Enter a check in the appropriate box regarding the facility's use of a waste water and runoff flow retention structure. In addition, provide the total acreage of the area available for land application.

Certifications

Federal statutes provide severe penalties for submitting false information on this NOI application form. Federal regulations require that this form be signed as follows:

For a corporation: by responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions;

For a partnership or sole proprietorship: by a general partner or the proprietor.

CAFO owners/operators who intend to obtain coverage under the CAFO NPDES permit should complete Certifications A and B. This includes CAFO facilities that do or have the potential to discharge.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average [insert estimated reporting burden] hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding these burden estimates, suggestions for improving this form, or any other aspect of the overall application process, including suggestions which may increase or reduce this burden to: Chief Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

ADDENDUM B—NOTICE OF TERMINATION FORM

**Notice of Termination (NOT) of Coverage Under a NPDES Permit
For Concentrated Animal Feeding Operations**

NPDES Permit Number: _____
State Permit Number: _____
Date NOI was submitted: _____
Name and location of facility (include County name): _____
Facility mailing address (if different from physical address):
Address: _____
City: _____ State: _____ ZIP Code: _____
Telephone Number: _____
Name of Operator: _____

The information in this section is required only if changes have been made since the submittal of the Notice of Intent:

Name and Address of Owner (if different): _____

Numbers and Type(s) of animals confined at the facility (e.g. feeder pigs, dairy cows, etc.): _____

Total acreage occupied by the facility: _____
Latitude and Longitude Location of the Facility:
LATITUDE ___ Degrees ___ Minutes ___ Seconds
LONGITUDE ___ Degrees ___ Minutes ___ Seconds
Receiving Stream (if known): _____

Reason for the termination of permit coverage: _____

_____ (Add attached sheets if necessary.)

Signature: _____ Date Signed: _____

Signature must be in accordance with Part V
of the General Permit.

ADDENDUM D - MANURE/WASTEWATER RECIPIENT FORM

**Concentrated Animal Feeding Operation (CAFO)
Manure/Wastewater Recipient Form**

All owners/operators of CAFOs that have been issued an NPDES Permit are responsible for maintaining a record of any sale or issuance of manure/wastewater that has been generated on the permitted facility to an outside party. This includes the name and address of the recipient. The CAFO owner/operator is responsible for providing the recipient with representative information on the nutrient content of the manure/wastewater to enable the recipient to properly apply the manure in accordance with the requirements of the Clean Water Act (CWA). The CAFO owner/operator is responsible for informing the recipient of his or her responsibility to properly manage the land application of the manure and/or to prevent discharge of pollutants to waters of the United States. The CAFO owners/operators are to retain manure/wastewater recipient information on-site for the term of the permit and provide them to the permitting authority upon request. A copy of the form should be provided to the recipient of the manure/ wastewater.

I. CAFO Facility Information

Owner/Operator Name(s) _____

Facility Address _____

City _____ State _____ ZIP Code _____ - _____

NPDES Permit Number _____ Date of Issuance ____/____/____

II. Sampling Information

The manure or wastewater being transferred from the above CAFO facility was collected on INSERT DATE and sampled on INSERT DATE. The characteristics of the manure or wastewater are as follows:

Phosphorus: _____ %
Nitrogen: _____ %
Potassium: _____ %

pH: _____
Amount Transferred _____ tons / gallons

III. Recipient Information

Recipient Name _____

Facility Address _____

City _____ State _____ ZIP Code _____ - _____

IV. Manure Recipient Responsibility

By accepting this CAFO-generated manure/wastewater, the recipient is advised and may have responsibilities to utilize this manure/wastewater in a manner that is consistent with the requirements of the Federal Clean Water Act and any other applicable regulations. Proper land application is best documented in a site-specific CNMP that covers the land to which this manure/wastewater is to be applied.

APPENDIX G

**NRCS POLICY FOR NUTRIENT MANAGEMENT
AND
NUTRIENT MANAGEMENT (Code 590)
CONSERVATION PRACTICE STANDARD**