

**PART 122—EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**Authority:** The Clean Water Act, 33 U.S.C. 1251 *et seq.*

**§ 122.21 Application for a permit (applicable to State programs, see § 123.25).**

(a) *Duty to apply.*

(1) Any person who discharges or proposes to discharge pollutants or who owns or operates a “sludge-only facility” whose sewage sludge use or disposal practice is regulated by part 503 of this chapter, and who does not have an effective permit, except persons covered by general permits under § 122.28, excluded under § 122.3, or a user of a privately owned treatment works unless the Director requires otherwise under § 122.44(m), must submit a complete application to the Director in accordance with this section and part 124 of this chapter. The requirements for concentrated animal feeding operations are described in § 122.23(d).

(2) Application Forms:

(i) All applicants for EPA-issued permits must submit applications on EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there. Application forms may be obtained by contacting the EPA water resource center at (202) 260-7786 or Water Resource Center, U.S. EPA, Mail Code 4100, 1200 Pennsylvania Ave., NW., Washington, DC 20460 or at the EPA Internet site [www.epa.gov/owm/npdes.htm](http://www.epa.gov/owm/npdes.htm). Applications for EPA-issued permits must be submitted as follows:

(A) All applicants, other than POTWs and TWTDS, must submit Form 1.

(B) Applicants for new and existing POTWs must submit the information contained in paragraph (j) of this section using Form 2A or other form provided by the director.

(C) Applicants for concentrated animal feeding operations or aquatic animal production facilities must submit Form 2B.

*[The remainder of § 122.21(a) through (h) is not specific to CAFOs and, therefore, is not included here.]*

(i) Application requirements for new and existing concentrated animal feeding operations and aquatic animal production facilities. New and existing concentrated animal feeding operations (defined in § 122.23) and concentrated aquatic animal production facilities (defined in § 122.24) shall provide the following information to the Director, using the application form provided by the Director:

(1) For concentrated animal feeding operations:

(i) The name of the owner or operator;

(ii) The facility location and mailing addresses;

(iii) Latitude and longitude of the production area (entrance to production area);

(iv) A topographic map of the geographic area in which the CAFO is located showing the specific location of the production area, in lieu of the requirements of paragraph (f)(7) of this section;

(v) Specific information about the number and type of animals, whether in open confinement or housed under roof (beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other);

(vi) The type of containment and storage (anaerobic lagoon, roofed storage shed, storage ponds, underfloor pits, above ground storage tanks, below ground storage tanks, concrete pad, impervious soil pad, other) and total capacity for manure, litter, and process wastewater storage(tons/gallons);

(vii) The total number of acres under control of the applicant available for land application of manure, litter, or process wastewater;

(viii) Estimated amounts of manure, litter, and process wastewater generated per year (tons/gallons);

(ix) Estimated amounts of manure, litter and process wastewater transferred to other persons per year (tons/gallons); and

(x) A nutrient management plan that at a minimum satisfies the requirements specified in § 122.42(e), including, for all CAFOs subject to 40 CFR part 412, subpart C or subpart D, the requirements of 40 CFR 412.4(c), as applicable.

*[The remainder of § 122.2 is not specific to CAFOs and, therefore, is not included here.]*

**§ 122.23 Concentrated animal feeding operations (applicable to State NPDES programs, see § 123.25).**

(a) *Scope.* Concentrated animal feeding operations (CAFOs), as defined in paragraph (b) of this section or designated in accordance with paragraph (c) of this section, are point sources, subject to NPDES permitting requirements as provided in this section. Once an animal feeding operation is defined as a CAFO for at least one type of animal, the NPDES requirements for CAFOs apply with respect to all animals in confinement at the operation and all manure, litter, and process wastewater generated by those animals or the production of those animals, regardless of the type of animal.

(b) Definitions applicable to this section:

(1) *Animal feeding operation* (“AFO”) 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.

(2) *Concentrated animal feeding operation* (“CAFO”) means an AFO that is defined as a Large CAFO or as a Medium CAFO by the terms of this paragraph, or that is designated as a CAFO in accordance with paragraph (c) of this section. Two or more AFOs under common ownership are

considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

(3) The term *land application area* means land under the control of an AFO owner or operator, whether it is owned, rented, or leased, to which manure, litter or process wastewater from the production area is or may be applied.

(4) *Large concentrated animal feeding operation* (“Large CAFO”). An AFO is defined as a Large CAFO if it stables or confines as many as or more than the numbers of animals specified in any of the following categories:

- (i) 700 mature dairy cows, whether milked or dry;
- (ii) 1,000 veal calves;
- (iii) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
- (iv) 2,500 swine each weighing 55 pounds or more;
- (v) 10,000 swine each weighing less than 55 pounds;
- (vi) 500 horses;
- (vii) 10,000 sheep or lambs;
- (viii) 55,000 turkeys;
- (ix) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
- (x) 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
- (xi) 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
- (xii) 30,000 ducks (if the AFO uses other than a liquid manure handling system); or
- (xiii) 5,000 ducks (if the AFO uses a liquid manure handling system).

(5) The term *manure* is defined to include manure, bedding, compost and raw materials or other materials commingled with manure or set aside for disposal.

(6) *Medium concentrated animal feeding operation* (“Medium CAFO”). The term Medium CAFO includes any AFO with the type and number of animals that fall within any of the ranges listed in paragraph (b)(6)(i) of this section and which has been defined or designated as a CAFO. An AFO is defined as a Medium CAFO if:

(i) The type and number of animals that it stables or confines falls within any of the following ranges:

- (A) 200 to 699 mature dairy cows, whether milked or dry;
- (B) 300 to 999 veal calves;
- (C) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
- (D) 750 to 2,499 swine each weighing 55 pounds or more;
- (E) 3,000 to 9,999 swine each weighing less than 55 pounds;
- (F) 150 to 499 horses;
- (G) 3,000 to 9,999 sheep or lambs;
- (H) 16,500 to 54,999 turkeys;
- (I) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
- (J) 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
- (K) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
- (L) 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or
- (M) 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system); and

(ii) Either one of the following conditions are met:

- (A) Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or

(B) Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(7) *Process wastewater* means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs or bedding.

(8) *Production area* means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

(9) *Small concentrated animal feeding operation* (“Small CAFO”). An AFO that is designated as a CAFO and is not a Medium CAFO.

(c) *How may an AFO be designated as a CAFO?* The appropriate authority (i.e., State Director or Regional Administrator, or both, as specified in paragraph (c)(1) of this section) may designate any AFO as a CAFO upon determining that it is a significant contributor of pollutants to waters of the United States.

(1) Who may designate?

(i) *Approved States.* In States that are approved or authorized by EPA under Part 123, CAFO designations may be made by the State Director. The Regional Administrator may also designate CAFOs in approved States, but only where the Regional Administrator has determined that one or more pollutants in the AFO's discharge contributes to an impairment in a downstream or adjacent State or Indian country water that is impaired for that pollutant.

(ii) *States with no approved program.* The Regional Administrator may designate CAFOs in States that do not have an approved program and in Indian country where no entity has expressly demonstrated authority and has been expressly authorized by EPA to implement the NPDES program.

(2) In making this designation, the State Director or the Regional Administrator shall consider the following factors:

- (i) The size of the AFO and the amount of wastes reaching waters of the United States;
- (ii) The location of the AFO relative to waters of the United States;
- (iii) The means of conveyance of animal wastes and process waste waters into waters of the United States;
- (iv) The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes manure and process waste waters into waters of the United States; and
- (v) Other relevant factors.

(3) No AFO shall be designated under this paragraph unless the State Director or the Regional Administrator has conducted an on-site inspection of the operation and determined that the operation should and could be regulated under the permit program. In addition, no AFO with numbers of animals below those established in paragraph (b)(6) of this section may be designated as a CAFO unless:

- (i) Pollutants are discharged into waters of the United States through a manmade ditch, flushing system, or other similar manmade device; or

(ii) Pollutants are discharged 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.

(d) *NPDES permit authorization.*

(1) *Permit Requirement.* A CAFO must not discharge unless the discharge is authorized by an NPDES permit. In order to obtain authorization under an NPDES permit, the CAFO owner or operator must either apply for an individual NPDES permit or submit a notice of intent for coverage under an NPDES general permit.

(2) *Information to submit with permit application or notice of intent.* An application for an individual permit must include the information specified in § 122.21. A notice of intent for a general permit must include the information specified in §§ 122.21 and 122.28.

(e) *Land application discharges from a CAFO are subject to NPDES requirements.* The discharge of manure, litter or process wastewater to waters of the United States from a CAFO as a result of the application of that manure, litter or process wastewater by the CAFO to land areas under its control is a discharge from that CAFO subject to NPDES permit requirements, except where it is an agricultural storm water discharge as provided in 33 U.S.C. 1362(14). For purposes of this paragraph, where the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, as specified in § 122.42(e)(1)(vi)-(ix), a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a CAFO is an agricultural stormwater discharge.

(1) For unpermitted Large CAFOs, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO shall be considered an agricultural stormwater discharge only where the manure, litter, or process wastewater has been land applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural



utilization of the nutrients in the manure, litter, or process wastewater, as specified in § 122.42(e)(1)(vi) through (ix).

(2) Unpermitted Large CAFOs must maintain documentation specified in § 122.42(e)(1)(ix) either on site or at a nearby office, or otherwise make such documentation readily available to the Director or Regional Administrator upon request.

(f) *By when must the owner or operator of a CAFO have an NPDES permit if it discharges?* A CAFO must be covered by a permit at the time that it discharges.

(g) *[Reserved]*

(h) *Procedures for CAFOs seeking coverage under a general permit.*

(1) CAFO owners or operators must submit a notice of intent when seeking authorization to discharge under a general permit in accordance with § 122.28(b). The Director must review notices of intent submitted by CAFO owners or operators to ensure that the notice of intent includes the information required by § 122.21(i)(1), including a nutrient management plan that meets the requirements of § 122.42(e) and applicable effluent limitations and standards, including those specified in 40 CFR part 412. When additional information is necessary to complete the notice of intent or clarify, modify, or supplement previously submitted material, the Director may request such information from the owner or operator. If the Director makes a preliminary determination that the notice of intent meets the requirements of §§ 122.21(i)(1) and 122.42(e), the Director must notify the public of the Director's proposal to grant coverage under the permit to the CAFO and make available for public review and comment the notice of intent submitted by the CAFO, including the CAFO's nutrient management plan, and the draft terms of the nutrient management plan to be incorporated into the permit. The process for submitting public comments and hearing requests, and the hearing process if a request for a hearing is granted, must follow the procedures applicable to draft permits set forth in 40 CFR 124.11 through 124.13. The Director may establish, either by regulation or in the general permit, an appropriate period of time for the public to comment and request a hearing that differs from the time period specified in 40 CFR 124.10. The Director must respond to significant comments received

during the comment period, as provided in 40 CFR 124.17, and, if necessary, require the CAFO owner or operator to revise the nutrient management plan in order to be granted permit coverage.

When the Director authorizes coverage for the CAFO owner or operator under the general permit, the terms of the nutrient management plan shall become incorporated as terms and conditions of the permit for the CAFO. The Director shall notify the CAFO owner or operator and inform the public that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

(2) *For EPA-issued permits only.* The Regional Administrator shall notify each person who has submitted written comments on the proposal to grant coverage and the draft terms of the nutrient management plan or requested notice of the final permit decision. Such notification shall include notice that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

(3) Nothing in this paragraph (h) shall affect the authority of the Director to require an individual permit under § 122.28(b)(3).

**§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).**

*[The first part of § 122.28 ((a) through (b)(2)) is not specific to CAFOs and, therefore, is not included here.]*

*[§ 122.28(b)(2) Authorization to discharge, or authorization to engage in sludge use and disposal practices]*(ii) The contents of the notice of intent shall be specified in the general permit and shall require the submission of 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). General permits for storm water discharges associated with industrial activity from inactive mining, inactive oil and gas operations, or inactive landfills occurring on Federal lands where an operator cannot be identified may contain alternative notice of intent requirements. All notices of intent shall be signed in

accordance with § 122.22. Notices of intent for coverage under a general permit for concentrated animal feeding operations must include the information specified in § 122.21(i)(1), including a topographic map.

*[§ 122.28(b)(2)(iii) through (vi) is not specific to CAFOs and, therefore, is not included here.]*

(vii) A CAFO owner or operator may be authorized to discharge under a general permit only in accordance with the process described in § 122.23(h).

*[The remainder of § 122.28 is not specific to CAFOs and, therefore, is not included here.]*

**§ 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25).**

*[The first part of § 122.42 ((a) through (d)) is not specific to CAFOs and, therefore, is not included here.]*

(e) *Concentrated animal feeding operations (CAFOs)*. Any permit issued to a CAFO must include the requirements in paragraphs (e)(1) through (e)(6) of this section.

(1) *Requirement to implement a nutrient management plan*. Any permit issued to a CAFO must include a requirement to implement a nutrient management plan that, at a minimum, contains best management practices necessary to meet the requirements of this paragraph and applicable effluent limitations and standards, including those specified in 40 CFR part 412. The nutrient management plan must, to the extent applicable:

- (i) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
- (ii) Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;
- (iii) Ensure that clean water is diverted, as appropriate, from the production area;
- (iv) Prevent direct contact of confined animals with waters of the United States;

- (v) Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;
- (vi) Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States;
- (vii) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;
- (viii) Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater; and
- (ix) Identify specific records that will be maintained to document the implementation and management of the minimum elements described in paragraphs (e)(1)(i) through (e)(1)(viii) of this section.

(2) *Recordkeeping requirements.*

(i) The permittee must create, maintain for five years, and make available to the Director, upon request, the following records:

(A) All applicable records identified pursuant paragraph (e)(1)(ix) of this section;

(B) In addition, all CAFOs subject to 40 CFR part 412 must comply with record keeping requirements as specified in § 412.37(b) and (c) and § 412.47(b) and (c).

(ii) A copy of the CAFO's site-specific nutrient management plan must be maintained on site and made available to the Director upon request.

(3) *Requirements relating to transfer of manure or process wastewater to other persons.* Prior to transferring manure, litter or process wastewater to other persons, Large CAFOs must provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis. The analysis provided must be consistent with the requirements of 40 CFR part 412. Large CAFOs must

retain for five years records of the date, recipient name and address, and approximate amount of manure, litter or process wastewater transferred to another person.

(4) Annual reporting requirements for CAFOs. The permittee must submit an annual report to the Director. The annual report must include:

- (i) The number and type of animals, whether in open confinement or housed under roof (beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other);
- (ii) Estimated amount of total manure, litter and process wastewater generated by the CAFO in the previous 12 months (tons/gallons);
- (iii) Estimated amount of total manure, litter and process wastewater transferred to other person by the CAFO in the previous 12 months (tons/gallons);
- (iv) Total number of acres for land application covered by the nutrient management plan developed in accordance with paragraph (e)(1) of this section;
- (v) Total number of acres under control of the CAFO that were used for land application of manure, litter and process wastewater in the previous 12 months;
- (vi) Summary of all manure, litter and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume;
- (vii) A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner; and
- (viii) The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraphs (e)(5)(i)(B) and (e)(5)(ii)(D) of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and, for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with paragraph (e)(5)(ii) of this section, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations

conducted in accordance with paragraph (e)(5)(ii)(D) of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.

(5) *Terms of the nutrient management plan.* Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-specific nutrient management plan. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan determined by the Director to be necessary to meet the requirements of paragraph (e)(1) of this section. The terms of the nutrient management plan, with respect to protocols for land application of manure, litter, or process wastewater required by paragraph (e)(1)(viii) of this section and, as applicable, 40 CFR 412.4(c), must include the fields available for land application; field-specific rates of application properly developed, as specified in paragraphs (e)(5)(i) through (ii) of this section, to ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application. The terms must address rates of application using one of the following two approaches, unless the Director specifies that only one of these approaches may be used:

(i) *Linear approach.* An approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications:

(A) The terms include maximum application rates from manure, litter, and process wastewater for each year of permit coverage, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Director, in pounds per acre, per year, for each field to be used for land application, and certain factors necessary to determine such rates. At a minimum, the factors that are terms must include: the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses of a field such as pasture or fallow fields; the realistic yield goal for each crop or use identified for each field; the nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use

identified for each field; credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; and accounting for all other additions of plant available nitrogen and phosphorus to the field. In addition, the terms include the form and source of manure, litter, and process wastewater to be land-applied; the timing and method of land application; and the methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(B) Large CAFOs that use this approach must calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application; or

(ii) *Narrative rate approach*. An approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied, according to the following specifications:

(A) The terms include maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Director, in pounds per acre, for each field, and certain factors necessary to determine such amounts. At a minimum, the factors that are terms must include: the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in accordance with paragraph (e)(5)(ii)(B) of this section); the realistic yield goal for each crop or use identified for each field; and the nitrogen and phosphorus recommendations from sources specified by the Director for each crop or use identified for each field. In addition, the terms include the methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied: results

of soil tests conducted in accordance with protocols identified in the nutrient management plan, as required by paragraph (e)(1)(vii) of this section; credits for all nitrogen in the field that will be plant available; the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; the form and source of manure, litter, and process wastewater; the timing and method of land application; and volatilization of nitrogen and mineralization of organic nitrogen.

(B) The terms of the nutrient management plan include alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation. Where a CAFO includes alternative crops in its nutrient management plan, the crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan must include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources specified by the Director for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied must be determined in accordance with the methodology described in paragraph (e)(5)(ii)(A) of this section.

(C) For CAFOs using this approach, the following projections must be included in the nutrient management plan submitted to the Director, but are not terms of the nutrient management plan: the CAFO's planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the nutrient management plan.



(D) CAFOs that use this approach must calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in paragraph (e)(5)(ii)(A) of this section before land applying manure, litter, and process wastewater and must rely on the following data:

(1) a field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology required by paragraph (e)(5)(ii)(A) of this section, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Director; and

(2) the results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(6) *Changes to a nutrient management plan.* Any permit issued to a CAFO must require the following procedures to apply when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Director:

(i) The CAFO owner or operator must provide the Director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraphs (e)(5)(i)(B) and (e)(5)(ii)(D) of this section are not subject to the requirements of paragraph (e)(6) of this section.

(ii) The Director must review the revised nutrient management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 40 CFR part 412, and must determine whether the changes to the nutrient management plan necessitate revision to the terms of the nutrient management plan incorporated into the permit issued to the CAFO. If revision to the terms of the nutrient management plan is

not necessary, the Director must notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If revision to the terms of the nutrient management plan is necessary, the Director must determine whether such changes are substantial changes as described in paragraph (e)(6)(iii) of this section.

(A) If the Director determines that the changes to the terms of the nutrient management plan are not substantial, the Director must make the revised nutrient management plan publicly available and include it in the permit record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner or operator and inform the public of any changes to the terms of the nutrient management plan that are incorporated into the permit.

(B) If the Director determines that the changes to the terms of the nutrient management plan are substantial, the Director must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 40 CFR 124.11 through 124.13. The Director may establish, either by regulation or in the CAFO's permit, an appropriate period of time for the public to comment and request a hearing on the proposed changes that differs from the time period specified in 40 CFR 124.10. The Director must respond to all significant comments received during the comment period as provided in 40 CFR 124.17, and require the CAFO owner or operator to further revise the nutrient management plan if necessary, in order to approve the revision to the terms of the nutrient management plan incorporated into the CAFO's permit. Once the Director incorporates the revised terms of the nutrient management plan into the permit, the Director must notify the owner or operator and inform the public of the final decision concerning revisions to the terms and conditions of the permit.

(iii) Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include, but are not limited to:

- (A) Addition of new land application areas not previously included in the CAFO's nutrient management plan. Except that if the land application area that is being added to the nutrient management plan is covered by terms of a nutrient management plan incorporated into an existing NPDES permit in accordance with the requirements of paragraph (e)(5) of this section, and the CAFO owner or operator applies manure, litter, or process wastewater on the newly added land application area in accordance with the existing field-specific permit terms applicable to the newly added land application area, such addition of new land would be a change to the new CAFO owner or operator's nutrient management plan but not a substantial change for purposes of this section;
- (B) Any changes to the field-specific maximum annual rates for land application, as set forth in paragraphs (e)(5)(i) of this section, and to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph (e)(5)(ii) of this section;
- (C) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application expressed in accordance with paragraph (e)(5) of this section; and
- (D) Changes to site-specific components of the CAFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S.
- (iv) *For EPA-issued permits only.* Upon incorporation of the revised terms of the nutrient management plan into the permit, 40 CFR 124.19 specifies procedures for appeal of the permit decision. In addition to the procedures specified at 40 CFR 124.19, a person must have submitted comments or participated in the public hearing in order to appeal the permit decision.

**§ 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see § 123.25)**

*[§ 122.62(a)(1) through (16) is not specific to CAFOs and, therefore, is not included here.]*

*[§122.62(a) Causes for modification](17) Nutrient Management Plans.* The incorporation of the terms of a CAFO's nutrient management plan into the terms and conditions of a general permit when a CAFO obtains coverage under a general permit in accordance with §§ 122.23(h) and 122.28 is not a cause for modification pursuant to the requirements of this section.

*[The remainder of § 122.62 is not specific to CAFOs and, therefore, is not included here.]*

### **§ 122.63 Minor modification of permits.**

*[§ 122.63(a) through (g) is not specific to CAFOs and, therefore, is not included here.]*

(h) Incorporate changes to the terms of a CAFO's nutrient management plan that have been revised in accordance with the requirements of § 122.42(e)(6).

## **PART 412—CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFO) POINT**

### **SOURCE CATEGORY**

**Authority:** 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

#### **§ 412.1 General applicability.**

This part applies to manure, litter, and/or process wastewater discharges resulting from concentrated animal feeding operations (CAFOs). Manufacturing and/or agricultural activities which may be subject to this part are generally reported under one or more of the following Standard Industrial Classification (SIC) codes: SIC 0211, SIC 0213, SIC 0214, SIC 0241, SIC 0251, SIC 0252, SIC 0253, SIC 0254, SIC 0259, or SIC 0272 (1987 SIC Manual).

#### **§ 412.2 General definitions.**

As used in this part:

- (a) The general definitions and abbreviations at 40 CFR part 401 apply.
- (b) *Animal Feeding Operation (AFO)* and *Concentrated Animal Feeding Operation (CAFO)* are defined at 40 CFR 122.23.
- (c) *Fecal coliform* means the bacterial count (Parameter 1) at 40 CFR 136.3 in Table 1A, which also cites the approved methods of analysis.
- (d) *Process wastewater* means water directly or indirectly used in the operation of the CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.
- (e) *Land application area* means land under the control of an AFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied.
- (f) *New source* is defined at 40 CFR 122.2. New source criteria are defined at 40 CFR 122.29(b).
- (g) *Overflow* means the discharge of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or storm water can be contained by the structure.
- (h) *Production area* means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of

production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

(i) *Ten (10)-year, 24-hour rainfall event, 25-year, 24-hour rainfall event, and 100-year, 24-hour rainfall event* mean precipitation events with a probable recurrence interval of once in ten years, or twenty five years, or one hundred years, respectively, as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or State rainfall probability information developed from this source.

(j) *Analytical methods*. The parameters that are regulated or referenced in this part and listed with approved methods of analysis in Table 1B at 40 CFR 136.3 are defined as follows:

- (1) Ammonia (as N) means ammonia reported as nitrogen.
- (2) BOD5 means 5-day biochemical oxygen demand.
- (3) Nitrate (as N) means nitrate reported as nitrogen.
- (4) Total dissolved solids means nonfilterable residue.

(k) The parameters that are regulated or referenced in this part and listed with approved methods of analysis in Table 1A at 40 CFR 136.3 are defined as follows:

- (1) Fecal coliform means fecal coliform bacteria.
- (2) Total coliform means all coliform bacteria.

#### **§ 412.3 General pretreatment standards.**

Any source subject to this part that introduces process wastewater pollutants into a publicly owned treatment works (POTW) must comply with 40 CFR part 403.

#### **§ 412.4 Best management practices (BMPs) for land application of manure, litter, and process wastewater.**

(a) *Applicability*. This section applies to any CAFO subject to subpart C of this part (Dairy and Beef Cattle other than Veal Calves) or subpart D of this part (Swine, Poultry, and Veal Calves).

(b) *Specialized definitions.*

(1) *Setback* means a specified distance from surface waters or potential conduits to surface waters where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: Open tile line intake structures, sinkholes, and agricultural well heads.

(2) *Vegetated buffer* means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

(3) *Multi-year phosphorus application* means phosphorus applied to a field in excess of the crop needs for that year. In multi-year phosphorus applications, no additional manure, litter, or process wastewater is applied to the same land in subsequent years until the applied phosphorus has been removed from the field via harvest and crop removal.

(c) *Requirement to develop and implement best management practices.* Each CAFO subject to this section that land applies manure, litter, or process wastewater, must do so in accordance with the following practices:

(1) *Nutrient Management Plan.* The CAFO must develop and implement a nutrient management plan that incorporates the requirements of paragraphs (c)(2) through (c)(5) of this section based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.

(2) *Determination of application rates.* Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the technical

standards for nutrient management established by the Director. Such technical standards for nutrient management shall:

- (i) Include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters, and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters; and
- (ii) Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the Director.

(3) *Manure and soil sampling.* Manure must be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil analyzed a minimum of once every five years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater.

(4) *Inspect land application equipment for leaks.* The operator must periodically inspect equipment used for land application of manure, litter, or process wastewater.

(5) *Setback requirements.* Unless the CAFO exercises one of the compliance alternatives provided for in paragraph (c)(5)(i) or (c)(5)(ii) of this section, manure, litter, and process wastewater may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.

(i) *Vegetated buffer compliance alternative.* As a compliance alternative, the CAFO may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited.

(ii) *Alternative practices compliance alternative.* As a compliance alternative, the CAFO may demonstrate that a setback or buffer is not necessary because implementation of alternative



conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.

### **Subpart A-Horses and Sheep**

#### **§ 412.10 Applicability.**

This subpart applies to discharges resulting from the production areas at horse and sheep CAFOs. This subpart does not apply to such CAFOs with less than the following capacities: 10,000 sheep or 500 horses.

#### **§ 412.12 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).**

(a) Except as provided in 40 CFR 125.30 through 125.32, and subject to the provisions of paragraph (b) of this section, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT: There shall be no discharge of process waste water pollutants to navigable waters.

(b) Process waste pollutants in the overflow may be discharged to navigable waters whenever rainfall events, either chronic or catastrophic, cause an overflow of process waste water from a facility designed, constructed and operated to contain all process generated waste waters plus the runoff from a 10-year, 24-hour rainfall event for the location of the point source.

#### **§ 412.13 Effluent limitations attainable by the application of the best available technology economically achievable (BAT).**

(a) Except as provided in 40 CFR 125.30 through 125.32 and when the provisions of paragraph (b) of this section apply, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BAT: There shall be no discharge of process waste water pollutants into U.S. waters.

(b) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the point source, any process wastewater pollutants in the overflow may be discharged into U.S. waters.

**§ 412.14 [Reserved]**

**§ 412.15 New source performance standards (NSPS).**

(a) Except as provided in paragraph (b) of this section, any new source subject to this subpart must achieve the following performance standards: There must be no discharge of process wastewater pollutants into U.S. waters.

(b) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the point source, any process wastewater pollutants in the overflow may be discharged into U.S. waters.

**Subpart B-Ducks**

**§ 412.20 Applicability.**

This subpart applies to discharges resulting from the production areas at dry lot and wet lot duck CAFOs.

This subpart does not apply to such CAFOs with less than the following capacities: 5,000 ducks.

**§ 412.21 Special definitions.**

For the purposes of this subpart:

(a) *Dry lot* means a facility for growing ducks in confinement with a dry litter floor cover and no access to swimming areas.

(b) *Wet lot* means a confinement facility for raising ducks which is open to the environment, has a small number of sheltered areas, and with open water runs and swimming areas to which ducks have free access.

**§ 412.22 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).**

(a) Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the (BPT):

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>	Maximum daily <sup>2</sup>	Maximum monthly average <sup>2</sup>
BOD <sub>5</sub> .....	3.66	2.0	1.66	0.91
Fecal coliform.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Pounds per 1000 ducks.

<sup>2</sup> Kilograms per 1000 ducks.

<sup>3</sup> Not to exceed MPN of 400 per 100 ml at any time.

(b) [Reserved]

**§ 412.25 New source performance standards (NSPS).**

(a) Except as provided in paragraph (b) of this section, any new source subject to this subpart must achieve the following performance standards: There must be no discharge of process waste water pollutants into U.S. waters.

(b) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the point source, any process wastewater pollutants in the overflow may be discharged into U.S. waters.

**§ 412.26 Pretreatment standards for new sources (PSNS).**

(a) Except as provided in 40 CFR 403.7 and in paragraph (b) of this section, any new source subject to this subpart must achieve the following performance standards: There must be no introduction of process waste water pollutants to a POTW.

(b) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the point source, any process wastewater pollutants in the overflow may be introduced to a POTW.

### **Subpart C-Dairy Cows and Cattle Other Than Veal Calves**

#### **§ 412.30 Applicability.**

This subpart applies to operations defined as concentrated animal feeding operations (CAFOs) under 40 CFR 122.23 and includes the following animals: mature dairy cows, either milking or dry; cattle other than mature dairy cows or veal calves. Cattle other than mature dairy cows includes but is not limited to heifers, steers, and bulls. This subpart does not apply to such CAFOs with less than the following capacities: 700 mature dairy cows whether milked or dry; 1,000 cattle other than mature dairy cows or veal calves.

#### **§ 412.31 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:

(a) For CAFO production areas. Except as provided in paragraphs (a)(1) through (a)(2) of this section, there must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area.

(1) Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into U.S. waters provided:

(i) The production area is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event;

(ii) The production area is operated in accordance with the additional measures and records required by § 412.37(a) and (b).

(2) Voluntary alternative performance standards. Any CAFO subject to this subpart may request the Director to establish NPDES permit effluent limitations based upon site-specific alternative technologies that achieve a quantity of pollutants discharged from the production area equal to or less than the quantity of pollutants that would be discharged under the baseline performance standards as provided by paragraph (a)(1) of this section.

(i) Supporting information. In requesting site-specific effluent limitations to be included in the NPDES permit, the CAFO owner or operator must submit a supporting technical analysis and any other relevant information and data that would support such site-specific effluent limitations within the time frame provided by the Director. The supporting technical analysis must include calculation of the quantity of pollutants discharged, on a mass basis where appropriate, based on a site-specific analysis of a system designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater, including the runoff from a 25-year, 24-hour rainfall event. The technical analysis of the discharge of pollutants must include:

(A) All daily inputs to the storage system, including manure, litter, all process waste waters, direct precipitation, and runoff.

(B) All daily outputs from the storage system, including losses due to evaporation, sludge removal, and the removal of waste water for use on cropland at the CAFO or transport off site.

(C) A calculation determining the predicted median annual overflow volume based on a 25-year period of actual rainfall data applicable to the site.

(D) Site-specific pollutant data, including N, P, BOD5, TSS, for the CAFO from representative sampling and analysis of all sources of input to the storage system, or other appropriate pollutant data.

(E) Predicted annual average discharge of pollutants, expressed where appropriate as a mass discharge on a daily basis (lbs/day), and calculated considering paragraphs (a)(2)(i)(A) through (a)(2)(i)(D) of this section.

(ii) The Director has the discretion to request additional information to supplement the supporting technical analysis, including inspection of the CAFO.

(3) The CAFO shall attain the limitations and requirements of this paragraph as of the date of permit coverage.

(b) For CAFO land application areas. Discharges from land application areas are subject to the following requirements:

(1) Develop and implement the best management practices specified in § 412.4;

(2) Maintain the records specified at § 412.37 (c);

(3) The CAFO shall attain the limitations and requirements of this paragraph by December 31, 2006.

**§ 412.32 Effluent limitations attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BCT:

(a) For CAFO production areas: the CAFO shall attain the same limitations and requirements as § 412.31(a).

(b) For CAFO land application areas: the CAFO shall attain the same limitations and requirements as § 412.31(b).

**§ 412.33 Effluent limitations attainable by the application of the best available technology economically achievable (BAT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BAT:

(a) For CAFO production areas: the CAFO shall attain the same limitations and requirements as § 412.31(a).

(b) For CAFO land application areas: the CAFO shall attain the same limitations and requirements as § 412.31(b).

**§ 412.34 [Reserved]**

**§ 412.35 New source performance standards (NSPS).**

Any new point source subject to this subpart must achieve the following effluent limitations representing the application of NSPS:

(a) For CAFO production areas. The CAFO shall attain the same limitations and requirements as § 412.31(a)(1) and § 412.31(a)(2).

(b) For CAFO land application areas: The CAFO shall attain the same limitations and requirements as § 412.31(b)(1) and § 412.31(b)(2).

(c) The CAFO shall attain the limitations and requirements of this paragraph as of the date of permit coverage.

(d) Any source subject to this subpart that commenced discharging after April 14, 1993, and prior to April 14, 2003, which was a new source subject to the standards specified in § 412.15, revised as of July 1, 2002, must continue to achieve those standards for the applicable time period specified in 40 CFR 122.29(d)(1). Thereafter, the source must achieve the standards specified in § 412.31(a) and (b).

**§ 412.37 Additional measures.**

(a) Each CAFO subject to this subpart must implement the following requirements:

(1) *Visual inspections.* There must be routine visual inspections of the CAFO production area. At a minimum, the following must be visually inspected:

(i) Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channelling contaminated storm water to the wastewater and manure storage and containment structure;

(ii) Daily inspection of water lines, including drinking water or cooling water lines;

(iii) Weekly inspections of the manure, litter, and process wastewater impoundments; the inspection will note the level in liquid impoundments as indicated by the depth marker in paragraph (a)(2) of this section.

(2) *Depth marker.* All open surface liquid impoundments must have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. In the case of new sources subject to effluent limitations established pursuant to § 412.46(a)(1) of this part, all open surface manure storage structures associated with such sources must include a depth marker which clearly indicates the minimum capacity necessary to contain the maximum runoff and direct precipitation associated with the design storm used in sizing the impoundment for no discharge.

(3) *Corrective actions.* Any deficiencies found as a result of these inspections must be corrected as soon as possible.

(4) *Mortality handling.* Mortalities must not be disposed of in any liquid manure or process wastewater system, and must be handled in such a way as to prevent the discharge of pollutants to surface water, unless alternative technologies pursuant to § 412.31(a)(2) and approved by the Director are designed to handle mortalities.

(b) *Record keeping requirements for the production area.* Each CAFO must maintain on-site for a period of five years from the date they are created a complete copy of the information required by 40 CFR



122.21(i)(1) and 40 CFR 122.42(e)(1)(ix) and the records specified in paragraphs (b)(1) through (b)(6) of this section. The CAFO must make these records available to the Director and, in an authorized State, the Regional Administrator, or his or her designee, for review upon request.

- (1) Records documenting the inspections required under paragraph (a)(1) of this section;
- (2) Weekly records of the depth of the manure and process wastewater in the liquid impoundment as indicated by the depth marker under paragraph (a)(2) of this section;
- (3) Records documenting any actions taken to correct deficiencies required under paragraph (a)(3) of this section. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors preventing immediate correction;
- (4) Records of mortalities management and practices used by the CAFO to meet the requirements of paragraph (a)(4) of this section.
- (5) Records documenting the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;
- (6) Records of the date, time, and estimated volume of any overflow.

(c) *Recordkeeping requirements for the land application areas.* Each CAFO must maintain on-site a copy of its site-specific nutrient management plan. Each CAFO must maintain on-site for a period of five years from the date they are created a complete copy of the information required by § 412.4 and 40 CFR 122.42(e)(1)(ix) and the records specified in paragraphs (c)(1) through (c)(10) of this section. The CAFO must make these records available to the Director and, in an authorized State, the Regional Administrator, or his or her designee, for review upon request.

- (1) Expected crop yields;
- (2) The date(s) manure, litter, or process waste water is applied to each field;
- (3) Weather conditions at time of application and for 24 hours prior to and following application;
- (4) Test methods used to sample and analyze manure, litter, process waste water, and soil;
- (5) Results from manure, litter, process waste water, and soil sampling;

- (6) Explanation of the basis for determining manure application rates, as provided in the technical standards established by the Director.
- (7) Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;
- (8) Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;
- (9) The method used to apply the manure, litter, or process wastewater;
- (10) Date(s) of manure application equipment inspection.

#### **Subpart D-Swine, Poultry, and Veal Calves**

##### **§ 412.40 Applicability.**

This subpart applies to operations defined as concentrated animal feeding operations (CAFOs) under 40 CFR 122.23 and includes the following animals: swine; chickens; turkeys; and veal calves. This subpart does not apply to such CAFOs with less than the following capacities: 2,500 swine each weighing 55 lbs. or more; 10,000 swine each weighing less than 55 lbs.; 30,000 laying hens or broilers if the facility uses a liquid manure handling system; 82,000 laying hens if the facility uses other than a liquid manure handling system; 125,000 chickens other than laying hens if the facility uses other than a liquid manure handling system; 55,000 turkeys; and 1,000 veal calves.

##### **§§ 412.35-412.42 [Reserved]**

##### **§ 412.43 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:

(a) For CAFO production areas.

(1) The CAFO shall attain the same limitations and requirements as § 412.31(a)(1) through (a)(2).

(2) The CAFO shall attain the limitations and requirements of this paragraph as of the date of permit coverage.

(b) For CAFO land application areas.

(1) The CAFO shall attain the same limitations and requirements as § 412.31(b)(1) and (b)(2).

(2) The CAFO shall attain the limitations and requirements of this paragraph by December 31, 2006.

**§ 412.44 Effluent limitations attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BCT:

(a) For CAFO production areas: the CAFO shall attain the same limitations and requirements as § 412.43(a).

(b) For CAFO land application areas: the CAFO shall attain the same limitations and requirements as § 412.43(b).

**§ 412.45 Effluent limitations attainable by the application of the best available technology economically achievable (BAT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BAT:

(a) For CAFO production areas: the CAFO shall attain the same limitations and requirements as § 412.43(a).

(b) For CAFO land application areas: the CAFO shall attain the same limitations and requirements as § 412.43(b).

**§ 412.46 New source performance standards (NSPS).**

Any new source subject to this subpart must achieve the following effluent limitations representing the application of NSPS:

(a) For CAFO production areas. There must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area, subject to paragraphs (a)(1) through (a)(3) of this section.

(1) Any CAFO subject to this subpart may request that the Director establish NPDES permit best management practice effluent limitations designed to ensure no discharge of manure, litter, or process wastewater based upon a site-specific evaluation of the CAFO's open surface manure storage structure. The NPDES permit best management practice effluent limitations must address the CAFO's entire production area. In the case of any CAFO using an open surface manure storage structure for which the Director establishes such effluent limitations, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Director on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

(i) Information to be used in the design of the open manure storage structure including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the CAFO's Nutrient Management Plan, additional storage capacity for manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.

(ii) The design of the open manure storage structure as determined by the most recent version of the National Resource Conservation Service's Animal Waste Management (AWM) software.

CAFOs may use equivalent design software or procedures as approved by the Director.

(iii) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.

(iv) The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in paragraph (a)(1)(i) of this section.

Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.

(v) Site-specific predicted design specifications including dimensions of the storage facility, daily manure and wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.

(vi) An evaluation of the adequacy of the designed manure storage structure using the most recent version of the Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all inputs to SPAW including but not limited to daily precipitation, temperature, and evaporation data for the previous 100 years, user-specified soil profiles representative of the CAFO's land application areas, planned crop rotations consistent with the CAFO's Nutrient Management Plan, and the final modeled result of no overflows from the designed open manure storage structure.

For those CAFOs where 100 years of local weather data for the CAFO's location is not available, CAFOs may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Director may approve equivalent evaluation and simulation procedures.

(vii) The Director may waive the requirement of (a)(1)(vi) for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

(viii) Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (a)(1)(i) through (a)(1)(vii) of this section

and operated in accordance with the additional measures and records required by § 412.47(a) and (b), will fulfill the requirements of this section.

(ix) The Director has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.

(2) The production area must be operated in accordance with the additional measures required by § 412.47(a) and (b).

(3) Provisions for upset/bypass, as provided in 40 CFR 122.41(m)-(n), apply to a new source subject to this provision.

(b) For CAFO land application areas: the CAFO shall attain the same limitations and requirements as § 412.43(b)(1).

(c) The CAFO shall attain the limitations and requirements of this paragraph as of the date of permit coverage.

(d) Any source subject to this subpart that commenced discharging after April 14, 1993, and prior to April 14, 2003, which was a new source subject to the standards specified in § 412.15, revised as of July 1, 2002, must continue to achieve those standards for the applicable time period specified in 40 CFR 122.29(d)(1). Thereafter, the source must achieve the standards specified in § 412.43(a) and (b).

(e) Any source subject to this subpart that commenced discharging after April 14, 2003, and prior to **[insert date of 60 days after date of publication]**, which was a new source subject to the standards specified in § 412.46(a) through (d) in the July 1, 2008, edition of 40 CFR part 439, must continue to achieve those standards for the applicable time period specified in 40 CFR 122.29(d)(1).

**§ 412.47 Additional measures.**

(a) Each CAFO subject to this subpart must implement the requirements of § 412.37(a).

(b) Each CAFO subject to this subpart must comply with the record-keeping requirements of § 412.37(b).

(c) Each CAFO subject to this subpart must comply with the record-keeping requirements of § 412.37(c).