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An Agricultural Law Research Project

Nutrient Management Plans Statutes & Regulations

Louisiana

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Nutrient Management Plans

STATE OF LOUISIANA

1) La. R.S. §§ 30:2071, 2072, 2073, 2704(B)(3), (4), 2075, 2075.1; LAC 33:IX.2505, 2705(E)

The statutes and Constitution are current through the 2018 regular and special legislative sessions. The statutes are subject to changes by the Louisiana Law Institute Council.

1) La. R.S. §§ 30:2071, 2072, 2073, 2704(B)(3), (4), 2075, 2075.1; LAC 33:IX.2505, 2705(E)

§ 30:2071. Citation.

This Chapter shall be known and may be cited as the “Louisiana Water Control Law.”

§ 30:2072. Policy; purpose.

The legislature finds and declares that the waters of the state of Louisiana are among the state’s most important natural resources and their continued protection and safeguard is of vital concern to the citizens of this state. To insure the proper protection and maintenance of the state’s waters, it is necessary to adopt a system to control and regulate the discharge of waste materials, pollutants, and other substances into the waters of the state.

§ 30:2073. Definitions.

As used in this Chapter, the following terms shall have the meaning ascribed to them in this Section, unless the context clearly indicates otherwise:

(1) “Louisiana Pollutant Discharge Elimination System (LPDES)” means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Federal Water Pollution Control Act, otherwise known as the Clean Water Act, and for which Louisiana is the delegated authority. The LPDES specifically includes but is not limited to authority to issue all permits provided for under Sections 402 and 405 of the Federal Water Pollution Control Act, as well as the general permits program, the storm water discharge program, the pretreatment program, and the sewage sludge program.

(2) “LPDES variance” means any mechanism or provision which allows modification to or waiver of permit conditions of state regulatory requirements applicable to discharges of substances to waters of the state or to treatment works

but does not include those variances which under federal law may only be granted by the Environmental Protection Agency.

(3) "Treatment works" means any plant or other works which accomplishes the treating, stabilizing, or holding of wastes.

(4) "Untreated wastes" means wastes which have not been treated in treatment works.

(5) "Wastes" means any material for which no use or reuse is intended and which is to be discarded.

(6) "Water pollution", except for the purposes of the Louisiana Pollution Discharge Elimination System, means the introduction into waters of the state by any means, including but not limited to dredge and fill operations, of any substance in concentrations which tend to degrade the chemical, physical, biological, or radiological integrity of such waters, including but not limited to the discharge of brine from salt domes which are located on the coastline of Louisiana and the Gulf of Mexico into any waters off said coastline and extending therefrom three miles into the Gulf of Mexico. For the purposes of the Louisiana Pollutant Discharge Elimination System, as defined herein, "water pollution" includes but is not limited to any addition of any pollutant or combination of pollutants to waters of the state from any source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the Gulf of Mexico from any source other than a vessel or other floating craft which is being used as a means of transportation. For the purposes of the Louisiana Pollutant Discharge Elimination System, as defined in this Paragraph, the definition of "water pollution" further includes but is not limited to additions of pollutants into waters of the state from surface runoff, which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by the state, a municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by an indirect discharger to a publicly owned treatment works.

(7) "Waters of the state" means both the surface and underground waters within the state of Louisiana including all rivers, streams, lakes, groundwaters, and all other water courses and waters within the confines of the state, and all bordering waters and the Gulf of Mexico. However, for purposes of the Louisiana Pollutant Discharge Elimination System, "waters of the state" means all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending therefrom three miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds,

impoundments of waters within the state of Louisiana otherwise defined as “waters of the United States” in 40 CFR 122.2, and tributaries of all such waters. “Waters of the state” does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.

(8) “Bordering waters”, as used in Paragraph (7) of this Section, means any waters of the state as otherwise defined, any part of which is located within the confines of the state, and any waters which touch the coastline of Louisiana as it borders on the Gulf of Mexico, and includes the waters of the Gulf of Mexico.

(9) “Public sanitary sewerage system” means a privately or publicly owned system intended to provide for the collection, conveyance, or treatment of waste water and other sewage for the public or such facilities owned by the public, if the system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days out of the year. The term includes:

(a) Any collection, conveyance, treatment, storage, or discharge facilities under the control of the operator of the system and used primarily in connection with the system.

(b) Any collection or pretreatment storage facilities not under such control which are used primarily in connection with the system.

§ 30:2074. Water quality control; secretary of environmental quality; powers and duties.

[. . .]

B. The secretary shall have the following powers and duties:

[. . .]

(3) To adopt and promulgate rules and regulations consistent with the general intent and purposes of this Chapter to prevent water pollution, including but not limited to the following:

(a) Regulations requiring compliance by users of publicly owned treatment works in accordance with Sections 307 and 402 of the Federal Water Pollution Control Act.

(b) Regulations requiring compliance with pretreatment standards and requirements in accordance with Sections 307 and 402 of the Federal Water Pollution Control Act.

(c) Regulations requiring the treatment of wastes in treatment works.

(d) Regulations prohibiting the unpermitted discharge of untreated or improperly treated wastes.

(e) Regulations prohibiting improper sewage sludge use or disposal, including but not limited to general requirements, pollutant limits, management practices, operational standards, and monitoring, recordkeeping, transporting, and reporting requirements for the final use or disposal of sewage sludge, when such use or disposal is by land application, surface disposal, disposal in a permitted landfill, or incineration, in accordance with Section 405 of the Federal Water Pollution Control Act or state water quality and sewage sludge and biosolids use or disposal standards.

(f) Regulations requiring the training and the certification of generators and preparers of sewage sludge for the final use or disposal of sewage sludge, when such use or disposal is by land application, surface disposal, disposal in a permitted landfill or incineration, in accordance with Section 405 of the Federal Water Pollution Control Act or state water quality and sewage sludge and biosolids use or disposal standards.

(4) To develop permitting procedures and to require and issue permits, variances, LPDES variances, licenses, or compliance schedules for all waste water discharges, discharges of waste, or sources of water pollution to the surface waters of the state, and to require of and issue LPDES permits to any person who prepares sewage sludge, applies sewage sludge to the land, or fires sewage sludge in a sewage sludge incinerator, or to the owner or operator of a sewage sludge surface disposal site and, when the secretary deems it advisable, to delegate the power to issue or deny such permits, variances, LPDES variances, licenses, or compliance schedules to the appropriate assistant secretary subject to his continuing oversight. The authority to execute minor permit actions and to issue registrations, certifications, notices of deficiency, and notification of inclusion under a general permit may be delegated by the secretary or the appropriate assistant secretary to an authorized representative, notwithstanding the provisions of R.S. 30:2050.26. Nothing in this Subsection shall preclude the secretary from issuing compliance schedules or taking enforcement action to address unauthorized pollution of ground waters of the state.

[. . .]

§ 30:2075. Permits, variances, and licenses.

No person shall conduct any activity which results in the discharge of any substance into the waters of the state without the appropriate permit, variance, or license required under the regulations of the department adopted pursuant to this Chapter.

§ 30:2075.1. Permits and licenses; surcharge.

A. The legislature finds and declares that discharges of substances into the waters of the state have damaged and endangered the Louisiana molluscan shellfish industry and have increased the costs of molluscan regulation and sanitation in the state, and that it is in the best interests of the state to impose a surcharge on discharges permitted or licensed pursuant to R.S. 30:2075.

B. A surcharge at a flat rate of twenty percent of the department imposed permit fee, with a maximum of one hundred fifty dollars, shall be added to the fee for each water discharge permit issued pursuant to R.S. 30:2075 for discharges in the Atchafalaya, Terrebonne, Barataria, Lake Pontchartrain, and Mississippi River water quality management basins as defined by the department Water Quality Management Basin Plans.

C. The proceeds of the surcharge authorized in Subsection B of this Section shall be deposited into the Oyster Sanitation Fund, established in R.S. 40:5.10.

D. Nothing in this Section shall be construed to modify the rules adopted pursuant to this Subtitle.

§ 2505. Concentrated Animal Feeding Operations (CAFO)

A. Permit Requirement for CAFOs. Concentrated animal feeding operations (CAFO), as defined in Subsection B of this Section or designated in accordance with Subsection C of this Section, are point sources, subject to LPDES permitting requirements as provided in this Chapter. Once an animal feeding operation is defined as a CAFO for at least one type of animal, the LPDES 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 Animal Feeding Operation (AFO)—a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

a. 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

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

Concentrated Animal Feeding Operation (CAFO)—an AFO that is defined as a Large CAFO or as a Medium CAFO by the terms of this Subsection, or that is designated as a CAFO in accordance with Subsection 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.

Land Application Area—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.

Large Concentrated Animal Feeding Operation (Large CAFO)—an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

- a. 700 mature dairy cows, whether milked or dry;
- b. 1,000 veal calves;
- c. 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.);
- d. 2,500 swine, each weighing 55 pounds or more;
- e. 10,000 swine, each weighing less than 55 pounds;
- f. 500 horses;
- g. 10,000 sheep or lambs;
- h. 55,000 turkeys;
- i. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
- j. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
- k. 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
- l. 30,000 ducks, if the AFO uses other than a liquid manure handling system; or
- m. 5,000 ducks, if the AFO uses a liquid manure handling system.

Manure—includes manure, bedding, compost, and raw materials or other materials commingled with manure or set aside for disposal.

Medium Concentrated Animal Feeding Operation (Medium CAFO)—includes any AFO with the type and number of animals that fall within any of the ranges listed in this definition and that has been defined or designated as a CAFO. An AFO is a Medium CAFO if:

- a. the type and number of animals that it stables or confines falls within any of the following ranges:
 - i. 200 to 699 mature dairy cows, whether milked or dry;
 - ii. 300 to 999 veal calves;
 - iii. 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.);
 - iv. 750 to 2,499 swine, each weighing 55 pounds or more;
 - v. 3,000 to 9,999 swine, each weighing less than 55 pounds;
 - vi. 150 to 499 horses;
 - vii. 3,000 to 9,999 sheep or lambs;
 - viii. 16,500 to 54,999 turkeys;
 - ix. 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
 - x. 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
 - xi. 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
 - xii. 10,000 to 29,999 ducks, if the AFO uses other than a liquid manure handling system; or
 - xiii. 1,500 to 4,999 ducks, if the AFO uses a liquid manure handling system; and
- b. either one of the following conditions are met:
 - i. pollutants are discharged into waters of the state through a manmade ditch, flushing system, or other similar manmade device;
or

- ii. pollutants are discharged directly into waters of the state that originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Process Wastewater—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 that comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

Production Area—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 that separate uncontaminated storm water. Also included in the definition of production area are any egg washing or egg processing facility and any area used in the storage, handling, treatment, or disposal of mortalities.

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 administrative authority 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 state.

1. Who may designate?

- a. Approved States. In states that are approved or authorized by EPA under 40 CFR Part 123, CAFO designations may be made by the state administrative authority. 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.

b. 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 administrative authority or the regional administrator shall consider the following factors:

a. the size of the AFO and the amount of wastes reaching waters of the state;

b. the location of the AFO relative to waters of the state;

c. the means of conveyance of animal wastes and process wastewaters into waters of the state;

d. the slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes, manure, and process wastewaters into waters of the state; and

e. other relevant factors.

3. No AFO shall be designated under this Subsection unless the state administrative authority 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 the definition of Medium CAFO in Subsection B of this Section may be designated as a CAFO unless:

a. pollutants are discharged into waters of the state through a manmade ditch, flushing system, or other similar manmade device; or

b. pollutants are discharged directly into waters of the state that 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. Who shall seek coverage under an LPDES permit?

1. The owner or operator of a CAFO shall seek coverage under an LPDES permit if the CAFO discharges a regulated wastewater. Specifically, the CAFO owner or operator shall either apply for an individual LPDES permit or submit a notice of intent for coverage under an LPDES general permit. If the state administrative authority has not made a general permit available to the CAFO, the CAFO owner or operator shall submit an application for an individual permit to the state administrative authority.

2. Information to Submit with Permit Application or Notice of Intent. An application for an individual permit shall include the information specified in LAC 33:IX.2501. A notice of intent for a general permit shall include the information specified in LAC 33:IX.2501 and 2515.

E. Land application discharges from a CAFO are subject to LPDES requirements. The discharge of manure, litter, or process wastewater to waters of the state 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 LPDES permit requirements, except where it is an agricultural storm water discharge as provided in 33 U.S.C. 1362(14). For purposes of this Subsection, 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 under LAC 33:IX.2703.E.1.f-i, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO is an agricultural storm water 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 storm water 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 LAC 33:IX.2703.E.1.f-i.

2. Unpermitted large CAFOs must maintain documentation specified in LAC 33:IX.2703.E.1.i either on site or at a nearby office, or otherwise make such documentation readily available to the state administrative authority upon request.

F. By when shall the owner or operator of a CAFO have an NPDES permit if it discharges?

1. A CAFO shall 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 LAC 33:IX.2515.B. The state administrative authority must review notices of intent submitted by CAFO owners or operators to ensure that the notice of intent includes the information required by LAC 33:IX.2501.I.1, including a nutrient management plan that meets the requirements of LAC 33:IX.2703.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 state administrative authority may request such information from the owner or operator. If the state administrative authority makes a preliminary determination that the notice of intent meets the requirements of LAC 33:IX.2501.I.1 and 2703.E, the state administrative authority must notify the public of the state administrative authority'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 that will 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 LAC 33:IX.3115, 3117, and 3119. The state administrative authority may establish, either by regulation or in the general permit, an appropriate period of time for the public to comment and/or request a hearing that differs from the time period specified in LAC 33:IX.3113. The state administrative authority must respond to significant comments received during the comment period, as provided in LAC 33:IX.3125, and, if necessary, require the CAFO owner or operator to revise the nutrient management plan in order to be granted permit coverage. When the state administrative authority 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 state administrative authority 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. Nothing in this Subsection shall affect the authority of the state administrative authority to require an individual permit under LAC 33:IX.2515.B.3.

§ 2703. Additional Conditions Applicable to Specified Categories of LPDES Permits

The following conditions, in addition to those set forth in LAC 33:IX.2701, apply to all LPDES permits within the categories specified below.

[. . .]

E. Concentrated Animal Feeding Operations (CAFOs). Any permit issued to a CAFO must include the requirements in Paragraphs E.1-6 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:

- a. ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
- b. 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;
- c. ensure that clean water is diverted, as appropriate, from the production area;
- d. prevent direct contact of confined animals with waters of the state;
- e. 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 that is not specifically designed to treat such chemicals and other contaminants;
- f. 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 state;
- g. identify protocols for appropriate testing of manure, litter, process wastewater, and soil;
- h. 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
- i. identify specific records that will be maintained to document the implementation and management of the minimum elements described in Subparagraphs E.1.a-h of this Section.

2. Recordkeeping Requirements

- a. The permittee must create, maintain for five years, and make available to the state administrative authority, upon request, the following records:
 - i. all applicable records identified in accordance with Subparagraph E.1.i of this Section; and

ii. in addition, all CAFOs subject to 40 CFR Part 412 must comply with recordkeeping requirements as specified in LAC 33:IX.4903.

b. A copy of the CAFO's site-specific nutrient management plan must be maintained on-site and made available to the state administrative authority 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, the recipient's name and address, and the 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 state administrative authority. The annual report must include:

a. 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);

b. the estimated amount of total manure, litter, and process wastewater generated by the CAFO in the previous 12 months (tons/gallons);

c. the estimated amount of total manure, litter, and process wastewater transferred to other persons by the CAFO in the previous 12 months (tons/gallons);

d. the total number of acres for land application covered by the nutrient management plan developed in accordance with Paragraph E.1 of this Section;

e. the 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;

f. a 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; and

g. a statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a Natural

Resource Conservation Service (NRCS) certified nutrient management planner; and

h. 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 Clauses E.5.a.ii and 5.b.iv 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 Subparagraph E.5.b 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 Clause E.5.b.iv 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 state administrative authority 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 Subparagraph E.1.h 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 Subparagraphs E.5.a and b 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 state administrative authority specifies a particular one of the approaches that shall be used.

a. Linear Approach. A linear approach is an approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications.

i. The terms must 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 state administrative authority, 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 used in the 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 a pasture or fallow field; the realistic yield goal for each crop or use identified for each field; the nitrogen and phosphorus recommendations from sources specified by the state administrative authority 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 must 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.

ii. 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.

b. Narrative Rate Approach. A narrative rate approach is 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.

i. The terms must 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 state administrative authority, in pounds per acre, for each field, and certain factors necessary to determine such amounts. At a minimum, the factors used in the 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 Clause E.5.b.ii 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 state administrative authority for each crop or use identified for each field. In addition, the terms must 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 Subparagraph E.1.g 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.

ii. The terms of the nutrient management plan may 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 state administrative authority 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 Clause E.5.b.i of this Section.

iii. For CAFOs using this approach, the following projections must be included in the nutrient management plan submitted to the state administrative authority, 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.

iv. 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 Clause E.5.b.i of this Section before land applying manure, litter, and process wastewater, and must rely on the following data:

(a). 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 Clause E.5.b.i of this Section, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the state administrative authority; and

(b). 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 that was previously submitted to the state administrative authority.

a. The CAFO owner or operator must provide the state administrative authority 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 Clauses E.5.a.ii and 5.b.iv of this Section are not subject to the requirements of this Paragraph.

b. The state administrative authority 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 state administrative authority 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 state administrative authority must determine whether such changes are substantial changes as described in Subparagraph E.6.c of this Section.

i. If the state administrative authority determines that the changes to the terms of the nutrient management plan are not substantial, the state administrative authority 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.

ii. If the state administrative authority determines that the changes to the terms of the nutrient management plan are substantial, the state administrative authority 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 and hearing requests, and the hearing process, if a hearing is held, must follow the procedures applicable to draft permits set forth in LAC 33:IX.3115, 3117, and 3119. The state administrative authority 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 LAC 33:IX.3113. The state administrative authority must respond to all significant comments received during the comment period as provided in LAC 33:IX.3125, 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 state administrative authority incorporates the revised terms of the nutrient management plan into the permit, the state administrative authority must notify the owner or operator and inform the public of the final decision concerning revisions to the terms and conditions of the permit.

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

i. 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 LPDES 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 CAFO owner or operator's nutrient management plan, but not a substantial change for purposes of this Section;

ii. any changes to the field-specific maximum annual rates for land application, as set forth in Subparagraph E.5.a of this Section, and to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in Subparagraph E.5.b of this Section;

iii. 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

iv. 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 state.