TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AGENDA ITEM REQUEST

for Rulemaking Adoption

AGENDA REQUESTED: July 2, 2014

DATE OF REQUEST: June 13, 2014

INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Patricia Durón, (512) 239-6087

CAPTION: Docket No. 2009-1016-RUL. Consideration of the adoption of the amendments to Sections 321.32 - 321.34, 321.36 - 321.40, 321.44, 321.46, and 321.47 of 30 TAC Chapter 321, Control of Certain Activities by Rule.

The adoption would implement the new federal Concentrated Animal Feeding Operation Regulations and Effluent Guidelines in accordance with the Texas Memorandum of Agreement with the United States Environmental Protection Agency regarding delegation of the federal National Pollutant Discharge Elimination System Program. The proposed rulemaking would also incorporate requirements and concepts from the existing CAFO General Permit and relocate and update certain requirements. The proposed rules were published in the March 14, 2014, issue of the *Texas Register* (39 TexReg 1868).
(Chris Ulmann, Robert Brush) (Rule Project No. 2009-011-321-OW)

L'Oreal Stepney, P.E.
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Copy to CCC Secretary? NO YES X

Texas Commission on Environmental Quality
Interoffice Memorandum

To: Commissioners **Date:** June 13, 2014

Thru: Bridget C. Bohac, Chief Clerk
Richard A. Hyde, P.E., Executive Director

From: L'Oreal W. Stepney, P.E., Deputy Director
Office of Water

Docket No.: 2009-1016-RUL

Subject: Commission Approval for Rulemaking Adoption
Chapter 321, Control of Certain Activities by Rule
Revisions to 30 TAC Chapter 321 Related to Revised EPA CAFO Rules
Rule Project No. 2009-011-321-OW

Background and reason(s) for the rulemaking:
The purpose of this rulemaking is to implement the new federal Concentrated Animal Feeding Operation (CAFO) regulations and effluent guidelines. The commission originally adopted this subchapter in July 2004 for National Pollutant Discharge Elimination System (NPDES) purposes and to make the Texas rules consistent with federal regulations. The commission modified the rules in October 2006 to allow dry litter poultry operations located in a sole-source surface drinking water protection zone to obtain authorization under the CAFO general permit rather than by individual permit, to remove the duty to apply for permit coverage for other dry litter poultry CAFOs based on a potential to discharge, and to add a requirement for all CAFOs to develop and implement a Nutrient Management Plan (NMP). The United States Environmental Protection Agency (EPA) adopted changes to the federal CAFO regulations and effluent guidelines in response to the order issued by the United States Court of Appeals for the Second Circuit in *Waterkeeper Alliance, et al. v. EPA*, 399 F.3d 486 (2d Cir. 2005). The federal rules became effective on December 22, 2008. Due to court challenges that successfully vacated portions of the rules, EPA did not finalize these rules until July 19, 2012. The finalized rules changed requirements to operate CAFOs as described below.

Scope of the rulemaking:

A.) Summary of what the rulemaking will do:
The amendments will incorporate changes in 40 Code of Federal Regulations (CFR) Parts 122 and 412, as required by 40 CFR §123.62(e) and the Memorandum of Agreement between the TCEQ and EPA Region VI. The amendments also incorporate requirements/concepts from the existing CAFO general permit and relocate certain rule requirements to other sections to improve organization, clarity and readability.

B.) Scope required by federal regulations or state statutes:

EPA made the following revisions to the CAFO rule:

1. Required an NMP to be included in permit applications. The federal regulation allows the permitting authority to select one of the two approaches for NMP development: linear rate or narrative rate. This rulemaking incorporates the narrative rate approach, as agreed upon with stakeholders.
2. Required permitting authorities to review the NMPs and provide the public with an opportunity for meaningful public review and comment;
3. Required incorporation of the terms of the NMP into the NPDES permit;
4. Established a list of changes to the NMP that would constitute a substantial change to the terms of a facility's NMP, thus requiring permit amendment and public notice. For more information on the proposed web-based public notice (*See* Effect on the Regulated Community below);
5. Deleted the provision that allowed CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement for new source swine, veal calf, and poultry operations. This was replaced with a requirement that the permittee demonstrate through a rigorous modeling analysis that it has designed a containment system that will comply with the no discharge requirement; and
6. Deleted the voluntary superior performance new source performance standard for new swine, veal calf, and poultry operations, which allowed discharges when certain innovative technologies were utilized instead of the 100-year, 24-hour design standard.

C.) Additional staff recommendations that are not required by federal rule or state statute:

The agency is also adopting the following revisions as a result of stakeholder input:

1. Incorporate requirements/concepts from the CAFO general permit;
2. For large CAFOs outside the North Bosque River Watershed, eliminate the requirement to develop and submit a Nutrient Utilization Plan (NUP) when the critical phosphorus level is exceeded, but retain the requirement to limit application to the crop removal rate under these circumstances, since the NUP requirement is superseded by the new federal NMP requirements;
3. Replace the 0-2", 2-6", and 6-24" soil sampling depth requirements with only a 0-6" sample, except in the North Bosque River Watershed, based on recommendations made by the Natural Resources Conservation Service and Texas AgriLife Extension Service that the 0-6" sample is more representative of field conditions; and
4. Relocate certain rule requirements to other sections to improve organization, clarity and readability.

Statutory authority:

The amendments are adopted under Texas Water Code (TWC), §5.102, which provides the commission with the general authority necessary to carry out its duties and general powers under its jurisdiction; TWC, §5.103 and §5.105, which provide the commission with the general authority to adopt rules; TWC, §26.011, regarding the commission's authority over water quality in the state; TWC, §26.027, regarding the commission's authority to issue

permits for discharges into or adjacent to water in the state; TWC, §26.0286 regarding the procedures applicable to permits for certain CAFOs; TWC, §26.040, which provides the commission the authority to issue general permits to authorize the discharge of waste into or adjacent to water in the state; TWC, §26.041, which allows the commission to use any means provided by TWC, Chapter 26 to prevent a discharge of waste that is injurious to public health; and TWC, §26.121, which prohibits the discharge of waste into or adjacent to any water in the state except as authorized with a commission permit or other authorization.

Effect on the:

A.) Regulated community:
All Texas Pollutant Discharge Elimination System (TPDES) CAFOs will be required to submit NMPs with their applications and notices of intent (NOI), which will result in additional public notice for NMPs. However, with this new NMP requirement, large CAFOs outside the North Bosque Watershed will no longer be required to submit a NUP. TPDES CAFOs that change their NMPs significantly will have additional review and public notice requirements as a result of the federal changes. These will be web-based notices. State-only CAFOs will not be affected by the new NMP requirements. CAFOs that apply for new source swine, veal, or poultry CAFO authorizations will have additional no discharge requirements imposed by the adopted rules. Operators located outside the North Bosque River Watershed will be required to take fewer soil samples.

B.) Public:
The public benefit anticipated from the changes in the adopted rules will be greater opportunity for public participation in the permitting process for permitted TPDES CAFOs.

C.) Agency programs:
The proposed rules will require the agency to review NMPs for all TPDES applications and NOIs, approximately 600, and provide notice for substantial changes. Current rules already require NMPs to be submitted with individual permit applications, but NMPs for general permits are only required to be maintained at the facility and updated annually instead of being submitted with the NOI and reviewed by the agency at the time of submission as required by the proposed rules. The agency plans to utilize available resources to implement the increased NMP reviews required by the proposed rules. In contrast, operators of TPDES CAFOs located outside the North Bosque River Watershed will no longer be required to submit a NUP to TCEQ for approval.

Stakeholder meetings:
TCEQ conducted initial stakeholder meetings in order to solicit advanced feedback on these rules. Stakeholders included the Agricultural Advisory Committee, which is composed of CAFO industry representatives, environmental groups, consultants, and local governments. Draft rules were made available and two stakeholder meetings were held on

March 17, 2009 and September 5, 2012. The agency received a total of 13 comments on the draft rules, which were considered in developing the proposed rules included with this Executive Summary.

Public comment:
The commission held a public hearing on April 8, 2104 in Austin, Texas. The comment period closed on April 14, 2104. The commission received comments from the: Texas Association of Dairymen, Texas Cattle Feeders Association, Texas Farm Bureau, Texas Pork Producers Association and Texas Poultry Federation (CAFO Industry Groups).

Generally, the CAFO Industry Groups supported the rule. The CAFO Industry Groups suggested specific changes to the rulemaking as noted in the Response to Comments section of this preamble.

Significant changes from proposal:
Section 321.36(c)(1)(C) was revised to update the reference to the NRCS practice code currently in use for calculating crop yields and allows CAFOs to use site-specific historic crop yield data, where appropriate.

Section 321.36(f)(2) was revised to clarify that TCEQ or its designee collects soil samples for dairy CAFOs in sole-source impairment zones.

Section 321.36(g) was revised to change the February 15 reporting deadline to March 31 of each year and the current annual reporting period from January 1 to December 31 was modified to allow the permittee to select the actual 12-month reporting period used by the CAFO.

Potential controversial concerns and legislative interest:
The federal requirements for NMP public participation were controversial at the national level. The TCEQ is working with stakeholders to develop NMP review and public participation processes at the state level. Some stakeholders may have concerns about requiring 0-6" soil sampling.

Does this rulemaking affect any current policies or require development of new policies?
Current process requires NMPs be submitted with individual permit applications for large CAFOs, but not with NOIs for authorization under the CAFO general permit. Public notice processes for the CAFO general permit will incorporate this requirement. Consistent with the federal changes, the current process will be incorporated into the rule for all permitted TPDES CAFOs, regardless of authorization type. State-only CAFOs will not be affected by the NMP provisions.

Re: Docket No. 2009-1016-RUL

What are the consequences if this rulemaking does not go forward? Are there alternatives to rulemaking?
The agency would not be able to fully implement the federal CAFO program and would not meet the NPDES delegation commitments under the memorandum of agreement with EPA. There is no alternative to implementing the amended federal rules.

Key points in the adoption rulemaking schedule:

***Texas Register* proposal publication date:** March 14, 2014
Anticipated Texas Register adoption publication date: July 25, 2014
Anticipated effective date: July 31, 2014
Six-month *Texas Register* filing deadline: September 14, 2014

Agency contacts:
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Attachments
Federal CAFO Rule

cc: Chief Clerk, 2 copies
Executive Director's Office
Marshall Coover
Tucker Royall
Pattie Burnett
Office of General Counsel
Chris Ulmann
Patricia Durón

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. 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 [1]	Maximum monthly average [1]	Maximum daily [2]	Maximum monthly average [2]
BOD_5	3.66	2.0	1.66	0.91
Fecal coliform	([3])	([3])	([3])	([3])

[1] Pounds per 1000 ducks.
[2] Kilograms per 1000 ducks.
[3] 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).

The Texas Commission on Environmental Quality (TCEQ, agency, commission) adopts the amendments to §§321.32 - 321.34, 321.36 - 321.40, 321.44, 321.46, and 321.47.

Sections 321.32 and 321.36 are adopted *with changes* to the proposed text as published in the March 14, 2014, issue of the *Texas Register* (39 TexReg 1868). Sections 321.33 - 321.34, 321.37 - 321.40, 321.44, 321.46, and 321.47 are adopted *without changes* to the proposed text and will not be republished.

Background and Summary of the Factual Basis for the Adopted Rules

These rules implement the federal Concentrated Animal Feeding Operation (CAFO) Regulations and Effluent Guidelines in accordance with the Texas Memorandum of Agreement (MOA) with the United States Environmental Protection Agency (EPA) regarding delegation of the federal National Pollutant Discharge Elimination System (NPDES) CAFO Program.

The primary purpose of the adopted amendments is to implement revised federal CAFO Regulations and Effluent Guidelines in this subchapter that were published in the *Federal Register* on November 20, 2008, and were effective on December 22, 2008, in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO Program. Due to court challenges that successfully vacated portions of the rules, EPA did not finalize these rules until July 19, 2012.

The commission adopted this subchapter in July 2004 for NPDES purposes and to make the Texas rules consistent with federal regulations. The commission modified the CAFO rules in October 2006 to allow dry litter poultry operations located in a sole-source surface drinking water protection zone to obtain authorization under the CAFO general permit rather than by individual permit, to remove the duty to apply for permit coverage for other dry litter poultry CAFOs based on a potential to discharge, and to add a requirement for all CAFOs to develop and implement a Nutrient Management Plan (NMP). The EPA adopted changes to the federal CAFO Regulations and Effluent Guidelines in response to the order issued by the United States Court of Appeals for the Second Circuit in *Waterkeeper Alliance, et al. v. EPA*, 399 F.3d 486 (2d Cir. 2005). The federal rules became effective on December 22, 2008, changing the requirements to operate CAFOs under the Federal Clean Water Act (See 73 *Federal Register* 70418 (November 20, 2008)(to be codified at 40 Code of Federal Regulations (CFR) Parts 9, 122, and 412)). Due to various court challenges that vacated portions of the new rules, the new CAFO rules were not finalized until July 19, 2012. Specifically, the new federal regulations: 1) require permitted CAFOs to submit their NMPs with their applications for individual permits or notices of intent for authorization under general permits; 2) require permitting authorities to review the NMPs and provide the public with an opportunity for meaningful public review and comment; 3) require incorporation of the terms of the NMP into the NPDES permit; 4) establish a list of changes to the NMP that would constitute a substantial change to the terms of a facilities NMP, thus triggering permit modification and public notice; 5) delete the provision that

allowed CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement for new source swine, veal calf, and poultry operations and replaced it with a requirement that the facility demonstrate through a rigorous modeling analysis that it has designed a containment system that will comply with the no discharge requirement; and 6) delete the voluntary superior performance new source performance standard (NSPS) for new swine, veal calf, and poultry operations.

Also, EPA adopted two approaches to determine rates of application of manure, litter, and wastewater in NMPs: the linear rate approach and the narrative rate approach. The commission incorporates only the narrative rate approach.

The EPA recognized in the NPDES delegation MOA with TCEQ that Subchapter B is the authority for the Texas Pollutant Discharge Elimination System (TPDES) CAFO program. The MOA requires that TCEQ adopt federal regulation changes into its state regulations and requirements. Therefore, amendments to the subchapter are necessary to establish the requirements that will allow TCEQ to continue to authorize CAFOs and for consistency with the federal CAFO rules.

The commission took into consideration the following state and federal actions in proposing these amendments to Subchapter B: 1) changes to the federal NPDES CAFO Regulations adopted December 22, 2008, under 40 CFR Parts 122 and 412 and finalized on

July 19, 2012; and 2) the NPDES MOA between TCEQ and EPA Region VI (September 14, 1998), which establishes policies, responsibilities, and program commitments to allow for continued assumption of the NPDES program by the TCEQ.

Section by Section Discussion

The commission proposes administrative changes throughout the adopted rulemaking to reflect the agency's current practices and to conform to *Texas Register* and agency guidelines. These adopted changes include correcting rule structure, certain terminology, and grammatical errors. These changes are non-substantive and generally are not specifically discussed in this preamble.

§321.32, Definitions

Adopted §321.32 amends several definitions with slight modifications to enhance understanding and readability. The adopted amendment to §321.32 also adds definitions for Annual(ly); Bypass; Cooling pond; Design rainfall event; Dry litter poultry operation; Operational; Substantial change; and Upset, which are common terms used in the adopted amendments to this subchapter. The following terms are no longer used or needed in the adopted amendments and were deleted from this section: Air contaminant; 100-year, 24-hour rainfall event; and Waste.

§321.33, Applicability and Required Authorizations

The adopted amendment to §321.33 deletes subsection (g) that allowed CAFOs that filed an application for an individual permit before July 27, 2004, to continue to operate until the commission acts upon the application because this provision no longer applies to any CAFOs. The adopted amendment adds "increasing application acreage" and "using a crop or yield goal to determine maximum application rates for manure, sludge, or wastewater that is not authorized by the permit or authorization" in adopted subsection (g) (formerly subsection (h)), as activities that trigger a permit amendment. Section 321.33(j) was deleted from this section and moved to adopted §321.40(l) for organizational purposes. The provision in adopted §321.33(j) (formerly subsection (l)), relating to permits with no expiration date, was deleted because there are no longer any CAFO permits in the state without expiration dates.

§321.34, Permit Applications

The adopted amendment to §321.34(f)(3) revises the description of the recharge feature certification requirements to clarify that the recharge feature certification shall be developed in accordance with TCEQ guidance document RG-433 and to modify wording to be more consistent with use of the guidance documents.

§321.36, Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)

The adopted amendment to §321.36 deletes subsection (c) because the requirements are located in §321.37 and §321.38. The adopted amendment to §321.36(c)(1) (formerly subsection (d)(1)) deletes the deadline to develop and implement an NMP, as this date is already past. Subsection (c)(1) is also revised to clarify that only large CAFOs are required to develop and implement an NMP and identify who can certify an NMP. The adopted amendment modifies §321.36(c)(1) (formerly subsection (d)(1)) to incorporate the requirements of the narrative rate approach for developing application rates for manure, sludge, and wastewater. The adopted amendment also adds §321.36(c)(2) to incorporate terms of the NMP; §321.36(c)(3) to incorporate requirements for changes to the NMP; and §321.36(c)(4) - (6) to incorporate requirements for substantial and non-substantial changes to the NMP. Section 321.36(e)(1) and (4) were moved to adopted §321.40(m) and §321.36(e)(2) and (3) were moved to adopted §321.46(d)(2) for organizational consistency. Adopted §321.36(g) was modified to apply only to dairy CAFOs in sole-source impairment zones. Adopted §321.36(g)(3) was revised to reflect the correct name of RG-408. Section 321.36(h) was moved to adopted §321.46(c) for organizational consistency. Section 321.36(i) was moved to adopted §321.46(d) for organizational consistency. Adopted §321.36(g) was revised to add the following requirements to the annual report: actual crop(s) planted and actual yield(s) for each land management unit (LMU); analyses of manure, litter, and wastewater that were land applied; amount of any supplemental fertilizer applied during the reporting period; and results of application rate calculations for each LMU. In addition, the February 15 submission date for the annual report was

moved to March 31 and the reporting period from January 1 to December 31 was modified to reflect the actual 12-month reporting period used by the CAFO. Section 321.36(k) was moved to adopted §321.39(b); §321.36(l) was moved to adopted §321.39(g); and §321.36(m) was moved to adopted §321.39(h), all for organizational consistency.

§321.37, Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) Production Areas

Adopted §321.37 changes the title "Effluent Limitations for Discharges from Production Areas" to "Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) Production Areas." The adopted amendment to §321.37(c) replaces the 100-year, 24-hour design rainfall event as a design criteria for new source swine, veal, and poultry CAFOs with a no discharge design criteria, and would add a statement that the upset/bypass requirements in 40 CFR §122.41(m) and (n) apply to new source swine, veal, and poultry CAFOs. Section 321.37(g), which describes voluntary superior environmental performance standards for new source swine, veal, and poultry CAFOs, was deleted for consistency with the federal rule.

§321.38, Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)

Adopted §321.38(a) was revised to clarify that any CAFO operator that does not use a retention control structure (RCS) is not subject to §321.38(e) - (g). Adopted

§321.38(e)(7)(A) was reorganized to improve readability and delete the 100-year, 24-hour design criteria for new source swine, veal, and poultry CAFOs. Adopted §321.38(e)(7)(B) was added to provide the design and modeling criteria for new source swine, veal, and poultry CAFOs. Adopted §321.38(g) was revised to incorporate more detailed design, construction, and testing requirements for RCSs.

§321.39, Operational Requirements Applicable to Concentrated Feeding Operations (CAFOs)

Adopted §321.39 changes the title from "Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)" to "Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)." Adopted §321.39(a) was revised to clarify that any CAFO operator that does not use an RCS is not subject to §321.39(b) and (c). Adopted §321.39(b)(2) and (4) were revised to replace references to "25-year or 100-year," and "required rainfall event" with the newly defined term "design rainfall event." Adopted §321.39(b)(5) was revised to clarify liner recertification requirements. Adopted §321.39(b)(6) was moved from §321.36(k). Adopted §321.39(e) was revised to clarify requirements for temporary storage of manure and sludge. Adopted §321.39(g)(3) was moved from §321.36(l).

§321.40, Concentrated Animal Feeding Operation (CAFO) Land Application Requirements

The adopted amendment to §321.40(h) makes revisions for readability and to clarify that land application of manure, sludge, and wastewater into surface water in the state is not authorized even though buffers are not required in certain circumstances. The adopted amendment deletes §321.40(k) as the deadline has passed. Adopted §321.40(k) (formerly subsection (l)) was changed to "Nutrient requirement." Adopted §321.40(k) was also revised and reformatted for readability and to clarify that nutrient utilization plan (NUP) requirements remain in effect for state-only CAFOs and dairy CAFOs located in major sole-source impairment zones. All other TPDES CAFOs would no longer be required to develop a NUP due to new NMP requirements in adopted §321.36(c) superseding the NUP requirements. Adopted §321.40(l) was moved from §321.33(j). Adopted §321.40(m) was amended to require TPDES CAFOs other than those in a major sole source impairment zone to acquire soil samples at a 0-6-inch depth only.

§321.44, Concentrated Animal Feeding Operation (CAFO) Notification Requirements

The adopted amendment to §321.44(a) adds paragraph (6), which adds any upset that exceeds an effluent limitation to the required discharge notification for consistency with federal regulations. The adopted amendment to §321.44(b)(1) deletes the requirements to analyze for fecal and total coliform bacteria and replace it with a requirement to analyze for *Escherichia coli*. The adopted amendment also clarifies that samples must be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab. Adopted §321.44(b)(3) was added to clarify the procedures required in the event of a

discharge outside normal business hours when maximum hold times for certain parameters are exceeded.

§321.46, Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting

The adopted amendment revises §321.46(a) to improve readability and to clarify the requirements for what must be included in the pollution prevention plan. Adopted §321.46(c) was revised to incorporate inspection requirements moved from §321.36(h). Adopted §321.46(d) was revised to incorporate recordkeeping requirements moved from 321.36(i).

§321.47, Requirements for Animal Feeding Operations (AFOs) Not Defined or Designated A Concentrated Animal Feeding Operations (CAFOs)

Adopted §321.47(b)(3) was amended to include examples of alternative practices that may be used instead of a control facility, and §321.47(b)(3)(A) and (B) were deleted and their requirements incorporated into adopted §321.47(c). Section 321.47(c)(3) was moved to adopted §321.47(d)(2) and §321.47(d)(2) was moved to adopted §321.47(c)(3) for organizational consistency. Other provisions in adopted §321.47(c) and (d) were revised for consistency with adopted §321.38 and §321.40. Adopted §321.47(e)(3), (5), and (6) were revised to replace references to "25-year or 100-year," and "required rainfall event" with the newly defined term "Design rainfall event." Adopted §321.47(e)(6) was revised for

consistency with adopted §321.39. Adopted §321.47(f) was revised for consistency with adopted §321.40. Adopted §321.47(g) was revised for consistency with adopted §321.36(f) and §321.40(m). Adopted §321.47(k) was revised for consistency with §321.41. Adopted §321.47(l)(1) was revised to clarify that inspections of the control facility and land application equipment would be conducted on a weekly basis. Section 321.47(n) was revised for consistency with adopted §321.39(h).

Final Regulatory Impact Analysis Determination

The commission reviewed the rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rule changes are not subject to Texas Government Code, §2001.0225, because they do not meet the criteria for a "major environmental rule" as defined in that statute.

A "major environmental rule" means a rule that has the specific intent of protecting the environment or reducing risks to human health from environmental exposure; and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

These rules implement the federal CAFO Regulations and Effluent Guidelines in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO

Program.

The primary purpose of the adopted amendments is to implement revised federal CAFO Regulations and Effluent Guidelines in this subchapter that were published in the *Federal Register* on November 20, 2008, and were effective on December 22, 2008, in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO Program. Due to court challenges that successfully vacated portions of the rules, EPA did not finalize these rules until July 19, 2012.

The specific intent of the adopted rule changes is to implement revised federal CAFO Regulations and Effluent Guidelines in accordance with the MOA between the state of Texas and EPA delegating the NPDES program to the state. The federal CAFO rule revisions were originally effective on December 22, 2008, but due to various court challenges EPA did not finalize the rules until July 19, 2012. TCEQ is required by the MOA to adopt rule changes within one year or within two years if a statutory change is necessary to implement the rule changes.

These changes require CAFOs seeking permitting to submit an NMP with their applications for an individual permit or with their NOI for authorization under the CAFO general permit. The revised rules require TCEQ to review the NMPs, incorporate terms of the NMP into CAFO permits, and provide the public with an opportunity for public review

and comment. The amendments also revise the NSPSs for swine, veal, calf, and poultry CAFOs, so that these facilities must evaluate the design of their RCSs to show that there will not be a discharge from those structures under any conditions. Therefore, it is not anticipated that the rules will adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The commission concludes that this rulemaking does not meet the definition of a "major environmental rule."

Additionally, the rulemaking is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b) because it does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225(a) applies to rules adopted by an agency that: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, or adopt a rule

solely under the general powers of the agency.

The commission invited public comment regarding the draft regulatory impact analysis determination during the public comment period. No comments were received on the regulatory impact analysis determination.

Takings Impact Assessment

The commission evaluated this rulemaking and performed an assessment of whether the adopted rule changes constitute a taking under Texas Government Code, Chapter 2007. The specific purpose of the adopted rule changes are to incorporate the terms of the NMP into CAFO permits and increase public participation in the CAFO permitting process. Additionally, the rulemaking would require new source swine, veal, calf, and poultry operations to size their RCSs so that they do not discharge in any size rain event. The adopted rule changes would substantially advance this stated purpose by inserting and changing current rule language to comply with the stated purpose of the rulemaking.

Promulgation and enforcement of this rulemaking would be neither a statutory nor a constitutional taking of private real property because it only affects real property to the extent of requiring new source swine, veal, calf, and chicken CAFOs to have larger RCSs to prevent discharges of contaminated wastewater.

There are no burdens imposed on private real property, and the benefits to society are increased by preventing discharges from new source swine, veal, calf, and poultry CAFOs. The rule changes do not burden, restrict, or limit an owner's right to property or reduce its value by 25% or more beyond what would otherwise exist in the absence of the regulation. Therefore, these rule changes, if adopted, do not constitute a taking under the Texas Government Code, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the adopted rulemaking and found that it is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §33.201 *et. seq*., and therefore, it must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the adopted rules in accordance with Coastal Coordination Act Implementation Rules at 31 TAC §505.22 and found the adopted rulemaking is consistent with the applicable CMP goals and policies.

CMP goals applicable to the adopted rules include: to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas and to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone.

CMP policies applicable to the adopted rules include: that discharges must comply with water quality-based effluent limits; discharges that increase pollutant loadings to coastal waters must not impair designated uses of coastal waters and must not significantly degrade coastal water quality, unless necessary for important economic or social development; and to the greatest extent practicable, new wastewater outfalls must be located where they will not adversely affect critical areas.

These adopted rules are consistent with CMP goals and policies because these adopted rules do not allow a discharge or allow disposal of manure, litter, or wastewater from Animal Feeding Operations (AFOs) into or adjacent to water in the state, except in accordance with an individual permit, the CAFO general permit, or other authorization issued by the commission. Further, these adopted rules require that manure, litter, and wastewater generated by an AFO under these adopted rules be retained and used in an appropriate and beneficial manner as provided by commission rules, orders, authorizations, the CAFO general permit, or individual permits.

Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the adopted rules are consistent with these CMP goals and policies. These rules do not create or have a direct or significant adverse effect on any coastal natural resource areas because the adopted rules were developed to reduce the possibility of discharges into coastal waters by ensuring that

AFOs in all regions of the state, including coastal areas, are properly designed, constructed, operated, and maintained to protect all water bodies, including coastal waters.

The commission invited public comment regarding the consistency with the coastal management program during the public comment period. No comments were received on the CMP.

Public Comment

The commission held a public hearing on April 8, 2104 in Austin, Texas. The comment period closed on April 14, 2104. The commission received comments from the: Texas Association of Dairymen, Texas Cattle Feeders Association, Texas Farm Bureau, Texas Pork Producers Association and Texas Poultry Federation (CAFO Industry Groups).

Generally, the CAFO Industry Groups supported the rule. The CAFO Industry Groups suggested specific changes to the rulemaking as noted in the Response to Comments section of this preamble.

Response to Comments

The CAFO Industry Groups comment that the group appreciates the efforts of TCEQ staff to maintain consistency between the TCEQ CAFO General Permit and TCEQ CAFO rules, supports the current TCEQ permitting system and process for both TPDES individual

permits and the CAFO General Permit as both permitting programs have been effectively implemented by the TCEQ and the CAFO permittees for the past decade. The CAFO Industry Groups appreciate the ability to apply for permits based on regulatory provisions that are clearly articulated in writing, which minimizes the need for special permit conditions. The CAFO Industry Groups note that the proposed changes to the CAFO rule, while not insignificant, appear to be incorporated in a reasonable and effective manner.

The commission acknowledges these comments.

The CAFO Industry Groups comment that §321.36(c)(3) - (6) should be clarified in the CAFO rule as to what constitutes a substantial versus non-substantial change to the terms of the NMP.

The commission agrees that additional clarity would help provide CAFO owners/operators a better understanding of what constitutes a substantial versus non-substantial change to the terms of the NMP. In response to this comment the following changes were made. The definition of "Substantial change" was moved from §321.36(c)(4) to §321.32(56), so that it is grouped with the other definitions. The definition was also clarified by adding the phrase "other changes are considered non-substantial." Additionally, §321.36(c)(4) was revised to clarify a substantial versus non-substantial

change and now reads as follows: "(4) Substantial change vs. non-substantial change. Those changes that constitute a substantial change are defined in §321.32(56). Non-substantial changes include, but are not limited to, changes to the site-specific LMU information in the Phosphorus index Worksheet, changes to the maximum application rate of nitrogen or phosphorus to be land applied or changes in the phosphorus index rating."

The CAFO Industry Groups comment that since the NRCS no longer uses Code 633 for manure-related management activities, TCEQ should revise §321.36(c)(1)(C) to delete the reference to Code 633. In addition, the CAFO Industry Groups comment that since CAFOs have accurate and reliable site-specific historic crop yield data, TCEQ should allow CAFOs to use this data.

In response to the comment, §321.36(c)(1)(C) was revised and now reads as follows: "(C) determine the crop requirement or the crop removal rate, as appropriate, from the S Crops Table as contained in the Texas NRCS 590 software Tool, site-specific historic CAFO yield data, or other sources as approved by the executive director;..." This updates the applicable code currently in use for calculating crop yields and allows CAFOs to use site-specific historic crop yield data, where appropriate.

The CAFO Industry Groups comment that §321.36(f)(2) and (3)(B) describing soil sample collection procedures for dairy CAFOs in major sole-source impairment zones are not consistent and should be revised.

In response to the comment, §321.36(f)(2) of the rule was revised and now reads as follows: "(2) Annual sampling. The TCEQ or its designee shall annually collect soil samples according to the following procedures, for each LMU owned, operated, controlled, rented or leased by the CAFO operator where manure, litter, or wastewater was applied during the preceding year. The results of these analyses shall be used in determining the application rates for manure, sludge and wastewater."

The CAFO Industry Groups comment that on several occasions, it has proven to be difficult to meet the February 15 deadline for submission of annual reports to the TCEQ. This is especially true of those crop rotations that require collection of soil samples in December, where the delay in shipment and laboratory analysis can be significant during the holiday season. Also, the additional records and reporting requirements now required by EPA will increase the amount of time necessary to complete the TCEQ Annual Report. The CAFO Industry therefore requests that TCEQ revise the reporting deadline to be March 31 of each year. In addition, the reporting form should allow for the actual 12-month reporting period to be entered by the permittee.

In response to the comment, the reporting deadline was changed from February 15 of each year to March 31 of each year and the reporting period from January 1 to December 31 was modified to reflect the actual 12-month reporting period used by the CAFO.

The CAFO Industry Groups comment that in the years when no manure or wastewater is land applied, especially in drought years, there may not be a laboratory analysis to submit to TCEQ every year. Therefore, the CAFO Industry Groups recommend revising §321.36(g)(12) to add the phrase "that was land applied."

In response to the comment, §321.36(g)(12) was revised as suggested and now reads as follows: "(12) the actual nitrogen and phosphorus content of manure, sludge, or process wastewater that was land applied."

SUBCHAPTER B: CONCENTRATED ANIMAL FEEDING OPERATIONS

§§321.32 - 321.34, 321.36 - 321.40, 321.44, 321.46, 321.47

Statutory Authority

The amendments are adopted under Texas Water Code (TWC), §5.102, which provides the commission with the general authority necessary to carry out its duties and general powers under its jurisdiction; TWC, §5.103 and §5.105, which provides the commission with the general authority to adopt rules; TWC, §26.011, regarding the commission's authority over water quality in the state; TWC, §26.027, regarding the commission's authority to issue permits for discharges into or adjacent to water in the state; TWC, §26.0286, regarding the procedures applicable to permits for certain Concentrated Animal Feeding Operation; TWC, §26.040, which provides the commission the authority to issue general permits to authorize the discharge of waste into or adjacent to water in the state; TWC, §26.041, which allows the commission to use any means provided by TWC, Chapter 26 to prevent a discharge of waste that is injurious to public health; and TWC, §26.121, which prohibits the discharge of waste into or adjacent to any water in the state except as authorized with a commission permit or other authorization.

These amendments implement the TWC, §§5,103, 26.026, and 26.040 in addition to the Federal Clean Water Act, §303 (33 United States Code, §1313).

§321.32. Definitions.

All definitions in Texas Water Code (TWC), Chapter 26 and Chapter 3 and Chapter 305 of this title (relating to Definitions and Consolidated Permits) shall apply to this subchapter and are incorporated by reference. The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Agronomic rates--The land application of animal manure, sludge [litter], or wastewater at rates of application in accordance with a plan for nutrient management which will [designed to] enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth based upon a realistic yield goal.

[(2) Air contaminant--Particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor or any combination thereof produced by processes other than natural. Water vapor is not an air contaminant.]

(2) [(3)] Animal feeding operation (AFO)--A lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or post-

harvest [postharvest] residues in the normal growing season over any portion of the lot or facility. Two or more AFOs under common ownership are a single AFO if they adjoin each other, or if they use a common area or system for the beneficial use of manure, sludge, or wastewater [wastes]. A land management unit is not part of an AFO.

(3) Annual(ly)--Once per calendar year with required events not more than 18 months apart, unless approved in writing by the executive director on a case-by-case basis.

(4) Aquifer--A saturated permeable geologic unit that can transmit, store, and yield to a well, the quality and quantities of groundwater sufficient to provide for a beneficial use. An aquifer can be composed of unconsolidated sands and gravels, permeable sedimentary rocks such as sandstones and limestones, and/or heavily fractured volcanic and crystalline rocks. Groundwater within an aquifer can be confined, unconfined, or perched.

(5) Area land use map--A map that identifies property lines, permanent odor sources, and distances and direction to any occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park within a one-mile radius of the permanent odor sources at the animal feeding operation [AFO]. The map shall include the north arrow, scale of map,

buffer distances, and date that the map was generated and the date that the distances were verified.

(6) Beneficial use--Application of manure, sludge [litter], or wastewater to land in a manner that does not exceed the agronomic need or rate for a harvested or cover crop. Application of manure, sludge, or wastewater on the land at a rate below or equal to the optimal agronomic rate is considered a beneficial use.

(7) Best management practices (BMPs)--The schedule of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of water in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, land application, or drainage from raw material storage.

(8) Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

(9) [(8)] Catastrophic conditions--Conditions that cause structural or mechanical damage to the animal feeding operation [AFO] from natural events including high winds, tornadoes [tornados], hurricanes, earthquakes, or other natural disasters, other than rainfall events.

(10) [(9)] Certified nutrient management specialist--An organization in Texas or an individual who is currently certified as a nutrient management specialist through a United States Department of Agriculture-Natural Resources Conservation Service, Texas Certified Crop Advisor's Board or Texas AgriLife Extension Service recognized certification program.

(11) [(10)] Chronic or catastrophic rainfall event--A series of rainfall events that do not provide opportunity for dewatering a retention control structure and that are equivalent to or greater than the design rainfall event or any single rainfall event that is equivalent to or greater than the design rainfall event.

(12) [(11)] Certified water quality management plan--A site-specific plan for agricultural or silvicultural lands that includes appropriate land treatment practices, production practices, management measures, technologies, or combinations thereof that when implemented, will achieve a level of pollution prevention or abatement determined by the Texas State Soil and Water Conservation Board, in consultation with the local Soil and Water Conservation District, to be consistent with state water quality standards.

(13) [(12)] Comprehensive Nutrient Management Plan (CNMP)--A resource management plan containing a grouping of conservation practices and management activities that, when implemented in a conservation system, will help ensure that both

agricultural production goals are achieved, and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are minimized.

(14) [(13)] Concentrated animal feeding operation (CAFO)--Any animal feeding operation (AFO) defined as follows:

(A) Large CAFO--Any AFO that stables or confines and feeds or maintains for a total of 45 days or more in any 12-month period equal to or more than the numbers of animals specified in any of the following categories:

(i) 1,000 cattle other than mature dairy cattle or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs;

(ii) 1,000 veal calves;

(iii) 700 mature dairy cattle (whether milkers or dry cows);

(iv) 2,500 swine, each weighing [more than] 55 pounds or more; 10,000 swine, each weighing less than 55 pounds;

(v) 500 horses;

(vi) 10,000 sheep or lambs;

(vii) 55,000 turkeys;

(viii) 125,000 chickens (other than laying hens, if the operation does not use a liquid manure [waste] handling system);

(ix) 30,000 laying hens or broilers (if the operation uses a liquid manure handling system), or 82,000 laying hens (if the operation does not use a liquid manure handling system); or

(x) 5,000 ducks (if the operation uses a liquid manure handling system), or 30,000 ducks (if the operation does not use a liquid manure handling system). [;]

(B) Medium CAFO--Any AFO [with the following number of animals] that discharges pollutants into water in the state either through a man-made ditch, flushing system, or other similar man-made device, or directly into water in the state with the following number of animals [that originates outside of and passes over, across, or

through the facility or otherwise comes into direct contact with animals confined in the operation]:

(i) 300 to 999 cattle other than mature dairy cattle or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs;

(ii) 200 to 699 mature dairy cattle (whether milking or dry cows);

(iii) 300 to 999 veal calves;

(iv) 750 to 2,499 swine each weighing 55 pounds or more, or 3,000 to 9,999 swine each weighing less than 55 pounds;

(v) 150 to 499 horses;

(vi) 3,000 to 9,999 sheep or lambs;

(vii) 16,500 to 54,999 turkeys;

(viii) 37,500 to 124,999 chickens (other than laying hens if the operation does not use [and other than] a liquid manure handling system);

(ix) 9,000 to 29,999 laying hens or broilers (if the operation uses a liquid manure handling system), or 25,000 to 81,999 laying hens (if the operation does not use [other than] a liquid manure handling system); or

(x) 1,500 to 4,999 ducks (if the operation uses a liquid manure handling system), or 10,000 to 29,999 ducks (if the operation does not use [other than] a liquid manure handling system).

(C) Small CAFO--Any [An] AFO that is designated by the executive director as a CAFO because it is a significant contributor of pollutants into or adjacent to water in the state and is not a large or medium CAFO.

(D) State-only CAFO--An AFO that falls within the range of animals in subparagraph (B) of this paragraph and that is [either] located in the dairy outreach program areas or an AFO designated by the executive director as a CAFO because it is a significant contributor of pollutants into or adjacent to water in the state. A state-only CAFO is authorized under state law.

(15) [(14)] Control facility--Any system used for the collection and retention of manure, sludge [litter], or wastewater at [on] the permitted facility [premises] until their ultimate use or disposal. This includes all collection ditches, conduits, and swales for the collection of manure, sludge, or [runoff and] wastewater, and all retention control structures.

(16) Cooling Pond--A shallow man-made structure filled with water for the specific purpose to keep animals cool and promote animal comfort.

(17) [(15)] Crop removal--The amount of nutrients contained in and removed by harvest of the adopted crop.

(18) [(16)] Crop requirement--The amount of nutrients that must be present in the soil in order to ensure that the crop nutrient needs are met, while accounting for nutrients that may become unavailable to the crop due to adsorption to soil particles or other natural causes.

(19) [(17)] Dairy outreach program areas--The area including all of the following counties: [Erath,] Bosque, Comanche, Erath, Hamilton, Hopkins [Comanche], Johnson, [Hopkins, Wood, and] Rains, and Wood.

(20) Design rainfall event--A design parameter corresponding to precipitation frequency values for a given rainfall duration and return period based on United States Department of Commerce, Weather Bureau, Technical Paper 40 or 49, May 1961.

(21) Dry litter poultry operation--A poultry animal feeding operation that does not use a liquid manure handling system.

(22) [(18)] Edwards Aquifer--As defined in §213.3 of this title (relating to Definitions).

(23) [(19)] Edwards Aquifer recharge zone--As defined in §213.3 of this title (relating to Definitions).

(24) [(20)] Groundwater--Subsurface water that occurs below the water table in [saturated] soils and geologic formations that are saturated [, and is] other than underflow of a stream or an underground stream.

(25) [(21)] Historical waste application field--An area of land located in a major sole-source impairment zone that at any time since January 1, 1995, has been owned

or controlled by an operator of a concentrated animal feeding operation (CAFO), and on which agricultural manure [waste] or wastewater from a CAFO has been applied.

(26) [(22)] Hydrologic connection--The connection and exchange between surface water and groundwater.

(27) [(23)] Lagoon--A retention control structure used for the biological treatment of liquid organic manure [wastes]. Lagoons can be aerobic, anaerobic, or facultative depending on their design and can be used in a series to produce a higher quality effluent. Treatment volume must be included in the lagoon design.

(28) [(24)] Land application--The act of applying manure, sludge [litter], or wastewater associated with the animal feeding operation including distribution to, or incorporation into, the soil mantle primarily for beneficial use purposes.

(29) [(25)] Land management unit (LMU)--An area of land owned, operated, controlled, rented, or leased by an animal feeding operation (AFO) owner or operator where [to which] manure, sludge [litter], or wastewater from the AFO is or may be applied. This includes land associated with a single center pivot system or a tract of land where [on which] similar soil characteristics exist and similar management practices are being used. LMUs include historical waste application fields. The term "land management unit" does

not apply to any lands not owned, operated, controlled, rented, or leased by the AFO operator for the purpose of off-site land application of manure, where [wherein] the manure is given or sold to others for land application.

(30) [(26)] Letter of consent--A document signed by the owner or the authorized legal representative of the owner(s) of an occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park, or a document signed by the governmental entity or the authorized legal representative of the entity responsible for the operation of a school or public park. The document specifically consents to location and operation of permanent odor sources of an animal feeding operation within the minimum buffer distance required under §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFO)).

(31) [(27)] Liner--Any barrier in the form of a layer; membrane; or blanket; naturally existing, constructed, or installed, to prevent a significant hydrologic connection between wastewater [liquids] contained in retention control structures and water in the state.

(32) [(28)] Liquid manure [waste] handling system--A system in which freshwater or wastewater is used for transporting and land applying manure [waste].

(33) [(29)] Major sole-source impairment zone--A watershed that contains a reservoir:

(A) that is used by a municipality as a sole source of drinking water supply for a population, inside and outside of its municipal boundaries, of more than 140,000; and

(B) [which] at least half of the water flowing into is from a source that, on September 1, 2001, is on the list of impaired state waters adopted by the commission as required by 33 United States Code, §1313(d), as amended:

(i) at least in part because of concerns regarding pathogens and phosphorus; and

(ii) where [for which] the commission has developed [, at some time, prepared] and adopted [submitted] a total maximum daily load [standard].

(34) [(30)] Manure--Feces and/or urine excreted by livestock and poultry [animals]. Manure includes litter [manure], bedding, compost, feed, and other raw materials commingled with feces and/or urine.

(35) [(31)] New source--As defined in §305.2 of this title (relating to Definitions). The criteria for new source determination are located in §305.534(b) of this title (relating to New Sources and New Dischargers).

(36) [(32)] Nuisance--Any discharge of air contaminant(s), including[,] but not limited to[,] odors of sufficient concentration and duration that are or may tend to be injurious to or that adversely affects human health or welfare, animal life, vegetation, or property, or that interferes with the normal use and enjoyment of animal life, vegetation, or property.

(37) [(33)] Nutrient management plan (NMP)--A plan based on the [The] Natural Resources Conservation Service Practice Standard Code 590, for Texas, [plan. A plan] to address the amount, rate, source, placement, method of application, [form] and timing of the application of plant [all] nutrients, and soil amendments.

(38) [(34)] Nutrient utilization plan (NUP)--A nutrient management plan [developed] to evaluate and address site-specific characteristics of a land management unit to ensure that the beneficial use of manure, sludge [litter], or wastewater is conducted in a manner to prevent adverse impacts on water quality.

[(35) One-hundred-year, 24-hour rainfall event--The maximum rainfall event with a probable recurrence interval of once in 100 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments; or equivalent regional or state rainfall information.]

(39) [(36)] One-hundred-year flood plain--Any land area that is subject to a 1.0% or greater chance of flooding in any given year from any source.

(40) [(37)] Open lot--Pens or similar confinement areas with dirt, concrete, or other paved or hard surfaces wherein livestock or poultry are substantially or entirely exposed to the outside environment except for small portions of the total confinement area affording protection by windbreaks or small shed-type shade areas and that do not sustain crops, vegetation, forage growth, or postharvest residues in the normal growing season. For the purposes of this subchapter, the term "open lot" is synonymous with the terms "dirt lot" or "dry lot," for livestock or poultry, as these terms are commonly used in the agricultural industry.

(41) Operational--The facility is constructed such that animals may be stabled, confined, fed, and maintained in accordance with the permit or authorization. The

facility does not have to be operating at the maximum number of animals allowed in the permit or authorization.

(42) [(38)] Operator--The owner or person responsible for the overall operation of a facility or part of a facility, subject to the provisions of this subchapter.

(43) [(39)] Permanent odor sources--Those odor sources that may emit odors 24 hours per day. For the purposes of this subchapter, permanent odor sources include, but are not limited to, pens, confinement buildings, lagoons, retention control structures, manure stockpile areas, and solid separators. For the purposes of this subchapter, permanent odor sources shall not include any feed handling facilities, land application equipment, or land management units.

(44) [(40)] Permittee--Any person issued an individual permit or order or authorized under a general permit.

(45) [(41)] Pesticide--A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. Pesticide includes insecticides, nematicides, rodenticides, fungicides, and herbicides.

(46) [(42)] Playa--A flat-floored, clayey bottom of an undrained basin that is located in an arid or semi-arid part of the state, [that] is naturally dry most of the year, and [that] collects runoff from rain, but is subject to rapid evaporation.

(47) [(43)] Process-generated wastewater--Any water directly or indirectly used in [or generated by] the operation of an animal feeding operation (such as [, including] spillage or overflow from animal or poultry watering systems that comes in contact with manure [waste; water used or generated by] washing, cleaning, or flushing pens, barns, [and] manure pits; direct contact swimming, washing, or spray cooling of animals; and dust control) [; and] including water used in or resulting from the production of animals or poultry or direct products (e.g., milk, meat, or eggs).

(48) [(44)] Production area--That part of an animal feeding operation that includes, but is not limited to, the animal confinement area, the manure storage area, the raw materials storage area, and the control facilities.

(49) [(45)] Protection zone--The area within the watershed of a sole-source surface drinking water supply that is:

(A) within two miles of the normal pool elevation, as shown on a United States Geological Survey (USGS) 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir;

(B) within two miles of that part of a perennial stream that is:

(i) a tributary of a sole-source drinking water supply; and

(ii) within three linear miles upstream of the normal pool elevation, as shown on a USGS 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir; or

(C) within two miles of a sole-source surface drinking water supply river, extending three linear miles upstream from the sole-source water supply intake point.

(50) [(46)] Recharge feature--Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connection between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connections include, but are not

limited to: faults, fractures, sinkholes, or other macro pores that allow direct surface infiltration; a permeable or shallow soil material that overlies an aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer.

(51) [(47)] Retention control structure (RCS)--Any basin, pond, pit, tank, conveyance, or lagoon [basins, ponds, pits, tanks, conveyances, and lagoons] used to hold, store, [and/] or treat manure, [litter,] wastewater, and sludge. The term [This] RCS does not include conveyance systems such as irrigation piping or ditches that are designed and maintained to convey but not store any manure, or wastewater, nor does it include cooling ponds located in the production area [litter, or water].

(52) [(48)] Significant expansion of concentrated animal feeding operation (CAFO) [expansion]--Any change to a CAFO that increases the manure [waste] production at the CAFO by more than 50%, above the maximum operating capacity stated in the initial authorization for [notice of intent, during] the facility under TXG920000. [term of the general permit.]

(53) [(49)] Sludge--Solid, semi-solid, or slurry manure [waste] generated during the treatment of [and/]or storage of any manure or wastewater. The term includes material resulting from treatment, coagulation, or sedimentation of manure [waste] in a

retention control structure. Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation) rules covering sludge do not apply to this subchapter.

(54) [(50)] Soil Plant Air and Water (SPAW) Field Pond Hydrology--SPAW is a Natural Resources Conservation Service (NRCS) water budgeting tool for farm fields, ponds, and inundated wetlands. The SPAW model may be used to perform daily hydrologic water budgeting using the NRCS Runoff Curve Number method.

(55) [(51)] Sole-source surface drinking water supply--A body of surface water that is identified as a public water supply in §307.10 of this title (relating to Appendices A - E) and is the sole source of supply of a public water supply system, exclusive of emergency water connections.

(56) Substantial change--The following changes to the terms of the Nutrient Management Plan are considered substantial; other changes are considered non-substantial:

(A) changing animal type or authorized head count;

(B) adding Land Management Units or increasing application acreage; and

(C) using a crop or yield goal to determine maximum application rates for manure, sludge or wastewater that is not authorized by the permit or authorization.

(57) ~~(56)~~ [(52)] Technical service provider--An individual, entity, or public agency certified and placed on an approved list by the Natural Resources Conservation Service (NRCS) to provide technical services to program participants or the NRCS.

(58) ~~(57)~~ [(53)] Twenty-five-year, ten-day rainfall event--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of ten days, as defined by the National Weather Service in Technical Paper Number 49 United States [U.S.] Weather Bureau and United States Department of Agriculture [USDA], Two-to-Ten Day Precipitation for Return Periods of 2 to 100 Years in the Contiguous United States (1964)[" , and subsequent amendments]; or equivalent regional or state rainfall information.

(59) ~~(58)~~ [(54)] Twenty-five-year, 24-hour rainfall event--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961[, and subsequent amendments]; or equivalent regional or state rainfall information.

(60) ~~(59)~~ [(55)] United States Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS)--An agency of the United States Department of Agriculture that provides assistance to agricultural producers for planning and installation of conservation practices through conservation and technical programs.

[(56) Waste--Manure (feces and urine), litter, bedding, or feedwaste from animal feeding operations.]

(61) ~~(60)~~ Upset--An exceptional incident where there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(62) ~~(61)~~ [(57)] Wastewater--Any water, including process-generated wastewater and precipitation, which [that] comes into contact with any manure, sludge [litter], bedding, or any raw material or intermediate or final material or product used in or resulting from the production of livestock [animals] or poultry or direct products (e.g., milk, meat, or eggs).

(63) ~~(62)~~ [(58)] Water in the state--Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(64) ~~(63)~~ [(59)] Well--Any artificial excavation into [and/]or below the surface of the earth whether in use, unused, abandoned, capped, or plugged that may be further described as one or more of the following:

(A) an excavation designed to explore for, produce, capture, recharge, or recover water, any mineral, compound, gas, or oil from beneath the land surface;

(B) an excavation designed for the purpose of monitoring any of the physical or chemical properties of water, minerals, geology, or geothermal properties that exist or may exist below the land surface;

(C) an excavation designed to inject [for the injection] or place [placement of] any liquid, solid, gas, vapor, or any combination of liquid, solid, gas, or vapor into any soil or geologic formation below the land surface; or

(D) an excavation designed to lower a water or liquid surface below the land surface either temporarily or permanently for any reason.

§321.33. Applicability and Required Authorizations.

(a) Permit required. All concentrated animal feeding operations (CAFOs) are point sources that require owners and operators to seek and obtain authorization under a water quality general permit or individual permit, except as provided in subsection (f) of this section. CAFO owners and operators have a duty to seek coverage as described in this section.

(b) Individual permit required. A discharge from the following CAFOs may be authorized only under an individual water quality permit in accordance with §321.34 of this title (relating to Permit Applications). Except as provided by subsection [subsections (e) and] (f) of this section, any operator who is required to obtain an individual water quality permit under this subsection may not commence physical construction and/or operation of any new control facilities until an individual water quality permit is issued for

that CAFO, or unless otherwise authorized by the commission in accordance with Texas Water Code (TWC), §26.027(c).

(1) Any CAFO located within one mile of coastal natural resource areas as defined by Texas Natural Resources Code, §33.203, unless the CAFO was authorized by the commission prior to January 10, 1997.

(2) Any dairy CAFO located in a major sole-source impairment zone.

(3) Any CAFO where, on the date the executive director determines that the application is administratively complete, any part of the production area of the CAFO is located or adopted to be located within the protection zone of a sole-source surface drinking water supply, in accordance with TWC, §26.0286. This paragraph does not apply to a poultry operation that does not use a liquid manure [waste] handling system, which is commonly referred to as a dry litter poultry operation.

(4) Any CAFO where any part of the production area or land management units is located in a watershed of a segment listed on the current United States Environmental Protection Agency-approved §303(d) list of impaired water bodies, as required by 33 United States Code (USC), §1313(d), and where a total maximum daily load implementation plan has been adopted by the commission that established additional

water quality protection measures for CAFOs that are not required by the CAFO general permit.

(5) Any animal feeding operation (AFO) that the executive director designates and requires to be authorized by an individual water quality permit to achieve the policies and purposes enumerated in TWC, §5.120 and §26.003; Texas Health and Safety Code, Chapters 341, 361, or 382; or §321.31 of this title (relating to Manure, Litter, and Wastewater Discharge and Air Emission Limitations). Cases where [for which] the executive director may require an AFO to obtain an individual water quality permit include, but are not limited to, the following:

(A) the operation is located near surface or groundwater resources;

(B) compliance with standards in addition to those listed in this subchapter is necessary in order to protect water in the state from pollution;

(C) the operation is not or has not been in substantial compliance with the standards of this subchapter;

(D) the operation is under a formal commission enforcement order or has been referred to the commission for enforcement action by the Texas State Soil and Water Conservation Board;

(E) the operation does not qualify for a CAFO general permit under §205.4 of this title (relating to Authorizations and Notices of Intent);

(F) the production area or land management unit of any new CAFO is located in a watershed of a segment listed on the current §303(d) list of impaired water bodies for bacteria, nutrients, and/or pathogens as required by 33 USC, §1313(d); or

(G) the executive director determines that an individual water quality permit is appropriate considering other pertinent factors.

(c) Individual permit or general permit required. A discharge from any other CAFO shall be authorized either by an individual water quality permit or an applicable CAFO general permit. Except as provided by [either] subsection [(e) or] (f) of this section, any operator required to obtain an individual water quality permit or authorization under a CAFO general permit according to this subsection may not begin physical construction or operation of any new control facility until the CAFO operator receives an individual water

quality permit or authorization under a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

(d) New or expanding AFO. No [After the effective date of this subchapter, no] person may commence construction or operation of a new CAFO or alter any existing AFO such that it becomes defined as a CAFO without prior authorization through an individual water quality permit or a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c). This subsection does not apply to dry litter poultry operations specified in subsection (f) of this section.

(e) Newly defined CAFO. An existing AFO that becomes classified as a CAFO [after the effective date of this subchapter] may not begin physical construction or operation of any new control facility until the CAFO operator receives authorization through an individual water quality permit or a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

(f) Dry litter poultry operations. [Dry litter poultry CAFOs do not have a duty to apply for permit coverage for a potential to discharge manure or litter into or adjacent to water in the state.] A dry litter poultry CAFO shall only be required to obtain authorization by an individual water quality permit or a CAFO general permit in accordance with subsection (a), (b), or (c) of this section if it proposes to discharge or the executive director

determines that a permit is necessary due to an unauthorized discharge; the operation's failure to comply with, or timely obtain, a certified water quality management plan approved by the Texas State Soil and Water Conservation Board; or other pertinent factors. Any dry litter poultry CAFO is authorized to be constructed and operated if the operation has a certified water quality management plan approved by the Texas State Soil and Water Conservation Board or is otherwise in compliance with the plan implementation schedule set forth in the notes following codified TWC, §26.302.

[(g) Facilities operating under an existing authorization. A CAFO currently authorized by registration must apply for an individual water quality permit before July 27, 2004 in order to continue to operate. An application for renewal of a registration will be considered an application for an individual permit, so long as the application fee for an individual permit is paid. If such an application is timely filed, operation of the CAFO under the terms and conditions of the existing permit by rule will continue to be authorized, and authorization under the existing permit by rule does not expire, until final commission action on the permit application or until the CAFO qualifies for coverage under a general permit.]

(g) [(h)] Expansion or modification requirements. A CAFO operator authorized under an individual water quality permit shall comply with §305.62 of this title (relating to Amendments [Amendment]). Before the permittee begins physical construction or

operation of any new control facility, the operator must obtain commission authorization. Changes for which an individual [a] permit amendment is required include, but are not limited to:

(1) increasing the maximum number of animals authorized for confinement;

(2) increasing the wastewater storage volume; [and]

(3) adding land management units or increasing application acreage; and [.]

(4) using a crop or yield goal to determine maximum application rates for manure, sludge, or wastewater that is not authorized by the permit or authorization.

(h) [(i)] AFOs that are not defined or designated as CAFOs. Discharges of manure, sludge [litter], or wastewater from an AFO that is not a CAFO as defined in this subchapter are authorized under this subchapter. Requirements applicable to these AFOs are described in §321.47 of this title (relating to Requirements for Animal Feeding Operations (AFOs) Not Defined or Designated As Concentrated Animal Feeding Operations (CAFOs)).

[(j) Runoff from a land management unit.]

[(1) The runoff of manure, litter, or wastewater to water in the state from a CAFO as the result of the proper land application of that manure, litter, or wastewater to land management units under the operator's control is subject to the requirements of this subchapter in accordance with paragraph (2) of this subsection.]

[(2) Where manure, litter, or wastewater is applied in accordance with a site-specific nutrient management plan that complies with §321.36(d) of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)) or when the land application conforms to §321.40 of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements), precipitation-related runoff from land management units under the control of a CAFO operator is authorized as:]

[(A) a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or]

[(B) an agricultural storm water discharge for all other sources.]

(i) [(k)] Edwards Aquifer. New CAFOs are prohibited within [on] the Edwards Aquifer recharge zone.

(j) [(l)] Permit term. Individual and general permits issued under this subchapter shall be effective for a term not to exceed five years from the date the permit is issued. [Any previously issued individual water quality permit or authorization by rule that did not include an expiration date shall expire 180 days after the effective date of this subchapter. The permittee shall comply with the requirements of subsection (g) of this section.]

(k) [(m)] Dual authorization. No person may concurrently hold both an individual water quality permit and authorization under a CAFO general permit for the same CAFO.

(l) [(n)] Additional requirements. Authorization under this subchapter, a general permit, or an individual permit does not release the operator from any responsibilities or requirements under other federal, state, or local statutes or regulations.

(m) [(o)] State-only authorizations. Any AFO that is a state-only CAFO[, as defined by §321.32(13)(D) of this title (relating to Definitions)] shall be authorized in accordance with subsection (a), [or] (b), or (c) of this section.

§321.34. Permit Applications.

(a) Any operator of an animal feeding operation (AFO) who is required to operate under an individual water quality permit by the Texas Water Code, the executive director,

or this subchapter shall submit an application in accordance with Chapter 281 of this title (relating to Applications Processing) and Chapter 305 of this title (relating to Consolidated Permits). The applicant shall provide such additional information in support of the application as may be necessary for the executive director to carry out an adequate administrative and technical review of the application.

(b) Applicants shall comply with §§305.41, 305.43, 305.44, and 305.47 of this title (relating to Applicability; Who Applies; Signatories to Applications; and Retention of Application Data) and §1.5(d) of this title (relating to Records of the Agency). Except as provided in subsection (c) of this section, §§305.61 - 305.68 of this title (relating to Applicability; Amendments [Amendment]; Renewal; Transfer of Permits; Permit Denial, Suspension, and Revocation; Revocation and Suspension upon Request or Consent; and Action and Notice on Petition for Revocation or Suspension) apply to applications for water quality permits. Notice, public comment, and contested case hearings on applications shall be conducted in accordance with commission rules governing applicable individual water quality permit applications.

(1) Any permittee with an issued and effective individual water quality permit shall submit an application for renewal of the permit in accordance with the requirements of Chapter 281 and Chapter 305 of this title, or shall submit a notice of intent (NOI) for a

concentrated animal feeding operation (CAFO) general permit in accordance with the requirements of the CAFO general permit.

(2) If an individual water quality permit application is [or an NOI for a CAFO general permit has been] submitted before the expiration date of the existing authorization, the terms and conditions of the existing permit continues in effect until final commission action on the permit application. [or until the CAFO qualifies for] An authorization under the general permit will be renewed in accordance with the requirements in the [a CAFO] general permit and this subchapter.

(3) A CAFO owner or operator who submits an NOI for a CAFO general permit authorization or is authorized under the CAFO general permit [for a new operation or significant CAFO expansion as defined by §321.32(48) of this title (relating to Definitions)] shall comply with the public participation process detailed in the CAFO general permit. [Expansions which are not considered significant only require the CAFO owner or operator to amend the pollution prevention plan and meet all the technical requirements of this subchapter and the permit or authorization.]

(4) The executive director may renew an application for an individual water quality permit for a state-only CAFO without a contested case hearing if the application qualifies for the exception in Texas Water Code, §26.028(d) [does not propose any change

that constitutes a major amendment as defined in Chapter 305 of this title (relating to Consolidated Permits)] or if the operation is not a major source as defined under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification). Renewal under this paragraph is allowed only if there has been no related formal enforcement action against the facility during the last 36 months of the term of the individual water quality permit in which the commission determined that:

(A) a violation occurred that contributed to pollution of surface or groundwater, or an unauthorized discharge occurred, or a violation of §101.4 of this title (relating to Nuisance) occurred, or any violation of an applicable state or federal air quality control requirement occurred;

(B) such discharge or air emission was within the reasonable control of the permittee; and

(C) such discharge or air emission could have been reasonably foreseen by the permittee.

(5) For any application for renewal within an area specified in §321.32(19) [§321.32(17)] of this title (relating to Definitions), the executive director will conduct an

annual compliance inspection within 12 months of the date the executive director declares the application administratively complete.

(c) An operator shall submit a complete application within 90 days of notification from the executive director that an individual water quality permit is required under §321.33(b)(5) of this title (relating to Applicability and Required Authorizations).

(d) Permittees may amend their individual water quality permits in accordance with §305.62 of this title and §321.33(g) [§321.33(h)] of this title [(relating to Applicability and Required Authorizations),] and must include all requested changes to the individual water quality permit application. The executive director will process a permit amendment application in accordance with all applicable requirements in Chapter 281 and Chapter 305 of this title.

(e) Any operator of an AFO who files an application for an individual water quality permit under this subchapter, or an amendment in accordance with §321.33(h) of this title, shall submit a complete application to the executive director, according to the provisions of this section including any other information as the executive director or the commission may require.

(f) Applications for an individual water quality permit under this section shall be made on forms prescribed by the executive director. The applicant shall submit an original completed application with attachments to the executive director at the commission headquarters in Austin, and one additional copy of the application with attachments to the appropriate commission regional office. At a minimum, the executive director will require the following information to be submitted, as it is applicable to the facility:

(1) information specified in §305.45 of this title (relating to Contents of Application for Permit);

(2) information specified in 40 Code of Federal Regulations (CFR) §122.21(i)(1), relating to application for a permit for a CAFO;

(3) a recharge feature certification, signed and sealed by a licensed Texas professional engineer, or a licensed Texas professional geoscientist, documenting the absence or presence of any natural or artificial recharge features identified on any tracts of land owned, operated, controlled, rented, or leased by the applicant and to be used as a part of a CAFO or land management unit. The recharge feature certification shall be developed in accordance with this subsection and the executive director's guidance, RG-433 Guidelines for Identifying and Protecting Aquifer Recharge Features. Use of the forms provided in RG-433 is optional.

(A) A [certified] water quality management plan certified [prepared] by the Texas State Soil and Water Conservation Board [that is developed] for a dry litter poultry facility that evaluates site-specific recharge characteristics and management practices of the operation will meet the recharge feature certification requirement of this paragraph.

[(A) Documentation by the certifying party shall identify:]

[(i) the sources and methods used to identify the presence or absence of recharge features; and]

[(ii) the method or approach to be used to identify previously unidentified and undocumented recharge features that may be discovered during the time of construction;]

(B) If [In preparing] the recharge feature certification identifies the presence of recharge features the applicant shall have protective measures developed, signed, and sealed by a licensed Texas professional engineer, or licensed Texas professional geoscientist, as appropriate and in conformance with the Texas Engineering Practice Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The permittee must implement the protective measures. The protective

measures must prevent impacts to the aquifer from any recharge features present. The protective measures must include at least one of the following [, the licensed Texas professional engineer or Texas professional geoscientist must conduct an on-site inspection and must review all pertinent records and maps maintained by the following entities or persons to locate any artificial recharge feature]:

[(i) Railroad Commission of Texas;]

[(ii) a Groundwater Conservation District, if applicable;]

[(iii) Texas Water Development Board;]

[(iv) the commission;]

[(v) Natural Resources Conservation Service (NRCS); and]

[(vi) previous owner of site, if available.]

[(4) where the applicant documents the presence of recharge features on the tracts for which an application is being filed, the applicant shall submit a plan. The plan must be signed and sealed by a licensed Texas professional engineer or licensed Texas

professional geoscientist, as appropriate and in conformance with the Texas Engineering Practices Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The plan must prevent impacts to an aquifer from any recharge features present. The plan must include at least one of the following:]

(i) [(A) provisions for the installation of the necessary and appropriate protective] measures to protect [for] each located recharge feature, such as [including] impervious cover, berms, buffer zones, or other equivalent protective measures; [, on the production area and land management units; or]

(ii) [(B) except as specified in §321.41 of this title (relating to Special Requirements for Discharges to a Playa), submission of] a detailed groundwater monitoring plan [covering all affected facilities and land application areas. At a minimum, the] which requires annual groundwater sampling [monitoring plan shall specify procedures to annually collect a groundwater sample] from representative wells and the groundwater [, have each sample] analyzed for chlorides, nitrates, and total dissolved solids[, and compare those values with background values for each well]; or

(iii) [(C)] provisions for any other similar method or approach demonstrated by the applicant to be protective of any associated recharge feature and approved by the commission. [; and]

(4) [(5)] any information required by §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)) to document compliance with the air standard permit.

§321.36. Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs).

(a) Applicability. These requirements apply to a concentrated animal feeding operation (CAFO) [general permit, individual water quality permit, or other authorization issued by the commission for a large CAFO, medium CAFO, and small CAFO] subject to the requirements of the Texas Pollutant Discharge Elimination System, unless otherwise noted.

(b) Permits. A CAFO shall comply with §305.125 of this title (relating to Standard Permit Conditions) and all applicable permit conditions contained in commission rules. Requirements to provide for and ensure compliance with standards set by the rules of the commission and the laws of Texas shall be determined and included in an individual water quality permit on a case-by-case basis to reflect the best method for attaining such compliance. Each permit shall contain terms and conditions as the commission determines necessary to protect human health and safety, and the environment.

[(c) Control facility. A CAFO shall ensure that the control facility is designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and direct precipitation from the design rainfall event as described in §321.37 of this title (relating to Effluent Limitations for Discharges from Production Areas).]

(c) [(d)] Nutrient management plan (NMP).

(1) The [On or before July 31, 2007, the] operator of a large CAFO shall develop and implement an NMP certified by a person or entity identified in §321.32(10) of this title (relating to Definitions) to be in accordance with the Texas Natural Resources Conservation Service NRCS [Code 590] Practice Standard Code 590. The plan shall include site-specific nutrient management practices that ensure appropriate agricultural utilization of nutrients in the manure, sludge [litter], or wastewater. The NMP shall be updated annually. The operator shall determine the amount, in tons/acre or acre-inches/acre, of manure, sludge, and wastewater for each land management unit (LMU) using the following methodology:

(A) determine the phosphorus index rating using the Agronomy Technical Note No. 15 Phosphorus Assessment Tool of Texas;

(B) determine the maximum annual application rate using Appendix 5 of the NRCS Practice Standard Code 590 for Texas;

(C) determine the crop requirement or the crop removal rate, as appropriate, from the S Crops Table as contained in the Texas NRCS 590-~~633~~ Software Tool, site-specific historic CAFO yield data, or other sources as approved by the executive director; and

(D) account for:

(i) the results of soil tests required by §321.40(m)(1)(B) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements);

(ii) credits for all nitrogen in the soil that will be available for plant use;

(iii) the amount of nitrogen and phosphorus in the manure and wastewater to be applied;

(iv) consideration of multi-year phosphorus application (for any LMU where nutrients are applied at a rate based on crop phosphorus requirement, the methodology must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement); and

(v) all other additions of plant available nitrogen and phosphorus to the LMU (i.e., from sources other than manure or wastewater or credits for residual nitrogen).

(2) Terms of the NMP include the following:

(A) animal type and authorized head count;

(B) LMU and application acreage for each LMU;

(C) crops (including alternative crops) identified in the NMP with their yield goals for each LMU;

(D) the maximum application rates for nitrogen and phosphorus for each crop in each LMU;

(E) the methodology in paragraph (1) of this subsection (including formulas, sources of data, protocols for making determinations, etc.) and actual data used to calculate application rates; and

(F) any other factors necessary to determine the amounts of nitrogen and phosphorus to be applied.

(3) Changes to a NMP. Any changes, except changes resulting from annual recalculation, must be submitted to the executive director. The NMP will be reviewed by the executive director to determine if changes require revisions to the terms of the NMP. Revisions to terms of the NMP can be substantial or non-substantial.

(4) Substantial and non-substantial changes. Those changes that constitute a substantial change are defined in §321.32(56) of this title. Non-substantial changes include, but are not limited to, changes to the site-specific LMU information in the Phosphorus index Worksheet, changes to the maximum application rate of nitrogen or phosphorus to be land applied or changes in the phosphorus index rating.

~~(4) Substantial change. The following changes to the terms of the NMP are considered substantial:~~

~~(A) changing animal type or authorized head count;~~

~~(B) adding LMUs or increasing application acreage; and~~

~~(C) using a crop or yield goal to determine maximum application rates for manure, sludge or wastewater that is not authorized by the permit or authorization.~~

(5) If changes to the terms of the NMP are determined to be substantial, the changes must be incorporated into the permit in accordance with §321.33(g) of this title (relating to Applicability and Required Authorizations).

(6) If changes to the terms of the NMP are determined to be non-substantial, the executive director will notify the permittee and include the revised permit in the permit record.

(7) [(2)] The CAFO operator shall create, maintain for five years, and make available to the executive director, upon request, a copy of the site-specific NMP and records of manure and wastewater application [and documentation of the implementation].

(d) [(3)] Compliance with the requirements of this section and applicable requirements [for the design and operation of a control facility, as described in §321.38 and §321.39] of this [title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs) and Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs))] subchapter constitute compliance with the provisions of 40 Code of Federal Regulations (CFR) §122.42(e)(1)(i) - (ix).

[(e) Manure, litter, and wastewater management.]

[(1) At least one representative sample of wastewater, if applicable, and one representative sample of manure/litter shall be collected and analyzed each year for total nitrogen, total phosphorus, and total potassium. The results of these analyses shall be used in determining application rates for manure in conjunction with analysis of wastewater.]

[(2) If manure, litter, or wastewater is sold or given to other persons for off-site land application or disposal, the CAFO operator shall maintain a log of:]

[(A) the date of removal from the CAFO;]

[(B) the name and address of the recipient; and]

[(C) the amount, in wet tons, dry tons, cubic yards, acre-inches, acre-feet, or gallons of manure, litter, or wastewater.]

[(3) A single pickup truck load need not be recorded.]

[(4) The operator shall make the most recent nutrient analysis available to any recipient of manure, litter, or wastewater.]

(e) [(f)] Buffers for LMUs [land management units (LMUs)]. A sinkhole shall be protected with a 100-foot buffer from manure, sludge [litter], and wastewater application. Alternatively, the CAFO may substitute a 35-foot wide vegetative buffer around a sinkhole where alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot buffer.

(f) [(g)] Soil sampling and testing procedures for dairy CAFOs, both state-only and Texas Pollutant Discharge Elimination System, located in a major sole-source impairment zone.

(1) Initial sampling. Before commencing land [wastewater irrigation or manure/litter] application of manure, sludge, or wastewater on an LMU [land owned,

operated, controlled, rented, or leased by the CAFO operator], the operator shall collect and analyze at least one representative soil sample from each of the LMUs according to the following procedures. The CAFO operator is not required to collect soil samples or report on LMUs where manure, litter, or wastewater has not been applied during the preceding year. The CAFO operator must comply with the initial sampling requirement before resuming land application to such LMUs.

(2) Annual sampling. The TCEQ or its designee shall annually collect soil samples, according to the following procedures, for each LMU owned, operated, controlled, rented or leased by the CAFO operator where manure, litter, or wastewater was applied during the preceding year. The results of these analyses shall be used in determining the application rates for manure, sludge and wastewater.

~~(2) Annual sampling. The CAFO operator shall annually collect soil samples for each LMU owned, operated, controlled, rented, or leased by the CAFO operator where manure, litter, or wastewater was applied during the preceding year.~~

(3) Sampling procedures. Soil sampling procedures [The operator] shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall be collected using approved procedures described in this section and the agency's publication, RG-408 entitled "Soil Sampling for Concentrated Animal Feeding Operations [Nutrient Utilization Plans (RG-408)]."

(B) Samples shall be collected by the Texas Commission on Environmental Quality [operator] or its designee and analyzed by a soil testing laboratory within the same 45-day time frame each year (from 45 days prior to until 45 days after the date of the previous year's sampling date), except when crop rotations or inclement weather require a change in the sampling time frame.

(C) One composite sample shall be obtained for each soil depth zone per uniform soil type (soils with the same characteristics and texture) within each LMU.

(D) Composite samples shall be comprised of 10 - 15 randomly sampled cores obtained from each of the following soil depth zones:

(i) Zone 1: zero to six inches (for an LMU where the manure is incorporated directly into the soil) or zero to two inches (for an LMU where the manure is not incorporated into the soil). Wastewater is considered to be incorporated. If a zero to two-inch sample is required under this subsection, then an additional sample from the two

to six-inch soil depth zone shall be obtained in accordance with the provisions of this section; and

(ii) Zone 2: six to 24 inches.

(4) Laboratory analysis. Laboratory [The CAFO operator shall have a laboratory] analysis of the soil samples shall be performed for physical and chemical parameters to include: nitrate as nitrogen in parts per million (ppm), extractable phosphorus (ppm, using Mehlich III with Inductively Coupled Plasma (ICP)), potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm); soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) - determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH.

[(h) Required inspections. The CAFO operator shall perform the routine inspections described in paragraphs (1) and (2) of this subsection to determine preventive maintenance and repair needs. Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.]

[(1) CAFO operators shall conduct a daily inspection of all water lines, including drinking water and cooling water lines, located within the drainage area of the retention control structure (RCS).]

[(2) CAFO operators shall conduct a weekly inspection of all control facilities and equipment used during that week for land application of manure, litter, or wastewater. An inspection must include all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to each RCS. The weekly inspection will note the level of liquid in each RCS as indicated by the pond marker required by subsection (k) of this section.]

[(i) Recordkeeping.]

[(1) The CAFO operator shall draft and maintain a report for five years in the pollution prevention plan to document the inspections and to report that appropriate action has been taken in response to deficiencies identified during any inspection required by subsection (h) of this section. A CAFO operator shall correct all the deficiencies within 30 days or shall document the factors preventing immediate correction.]

[(2) The CAFO operator shall maintain records describing mortality management practices implemented in accordance with subsection (l) of this section.]

[(3) The CAFO operator shall maintain documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankments and liners.]

[(4) The CAFO operator shall maintain documentation describing a discharge into water in the state including the date, time, volume of overflow, a copy of the notification(s) provided to the regional office, and sample analysis results associated with an RCS discharge.]

[(5) The CAFO operator shall comply with the land application area recordkeeping requirements identified in 40 CFR §412.37 and §412.47. Compliance with §321.46 of this title (relating to Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting) constitutes compliance with this requirement.]

(g) [(j)] Annual report required. An annual report shall be submitted to the executive director's Office of Compliance and Enforcement, Enforcement Division, by March 31 ~~February 15~~ of each year (for the reporting period of January 1 to December 31 of the previous year, or the actual 12-month reporting period used by the CAFO) from each CAFO authorized under a CAFO general permit or through an individual water quality permit in accordance with this subchapter. The report shall be submitted on forms

prescribed by the executive director and shall include, but is not limited to, the following information:

(1) number and type of animals, whether in open confinement or housed under roof;

(2) estimated total manure, sludge [litter], and wastewater generated during the reporting period;

(3) total manure, sludge [litter], and wastewater land applied during the reporting period;

(4) total manure, sludge [litter], and wastewater transferred to other persons during the reporting period;

(5) total number of acres for land application under the control of the CAFO operator, including both the acres included in the NMP for the CAFO and the total number of acres used during the reporting period for land application;

(6) summary of discharges of manure, sludge [litter], or wastewater from the production area that occurred during the reporting period including dates, times, and approximate volume;

(7) a statement indicating that the NMP under which the CAFO is operating was developed or revised and approved by a certified nutrient management specialist;

(8) a copy of the initial soil analysis for each LMU, regardless of whether manure, sludge [litter], or wastewater has been applied;

(9) soil monitoring reports of all soil samples collected in accordance with the requirements of this subchapter;

(10) groundwater monitoring reports if applicable; [and]

(11) the actual crop(s) planted and yield(s) for each LMU;

(12) the actual nitrogen and phosphorus content of the manure, sludge, and process wastewater that was land applied;

(13) the data used in calculations and the results of calculations conducted in accordance with subsection (c) of this section;

(14) the amount of manure, sludge, and wastewater applied to each LMU during the reporting period;

(15) any supplemental fertilizer applied during the reporting period; and

(16) [(11)] any other information requested by the executive director.

[(k) Pond marker. A permanent pond marker that identifies the level of the design rainfall event shall be installed and maintained in the RCS. In addition, if the operator must maintain a minimum treatment volume in accordance with §321.43(j)(3)(B) of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)), the pond marker must identify this level. The pond marker shall be visible from the top of the levee.]

[(l) Carcass disposal. Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or

process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §31.3 and §58.31(b).]

[(m) Closure required. A closure plan must be developed by a CAFO operator when an RCS will no longer be used and when the CAFO ceases or plans to cease operation. For closure of a CAFO, a closure plan must be developed and submitted to the executive director when operation of the CAFO or an individual RCS terminates. The closure plan for the RCS must, at a minimum, be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), as amended, and using the guidelines contained in the Texas Cooperative Extension/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended. A CAFO shall maintain or renew its existing authorization and maintain compliance with the requirements of this subchapter until the facility has been closed.]

§321.37. Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) [Discharges from] Production Areas.

(a) The following requirements will be applied in a permit or authorization issued by the commission, as applicable to concentrated animal feeding operations (CAFOs).

(b) The effluent limitations promulgated by the United States Environmental Protection Agency applicable to duck CAFOs [concentrated animal feeding operations (CAFOs)], including 40 Code of Federal Regulations (CFR) §§412.20 - 412.26[, as amended,] are adopted by reference.

(c) There [Except as provided by this section, there] shall be no discharge of manure, sludge [litter], or wastewater from a poultry (chickens and turkeys), swine, or veal calf CAFO production area that is subject to the new source performance standards in 40 CFR §412.46.

(1) The operator of a poultry (chickens and turkeys), swine, or veal calf CAFO subject to the new source performance standards in 40 CFR §412.46 shall design, construct, operate, and maintain retention control structures (RCSs) such that no discharge will occur [to contain all wastewater including the runoff and direct precipitation from the 100-year, 24-hour rainfall event for the location of the facility as required by the federal effluent guidelines].

(2) Provisions for upset or bypass, as defined in §321.32 of this title (relating to Definitions) and as provided in 40 CFR §122.41 (m) and (n), apply to a new source subject to this provision. To establish the affirmative defense of upset, a permittee shall demonstrate, through properly signed operating logs, or other relevant evidence that:

(A) an upset occurred and that the permittee can identify the cause(s) of the upset; and

(B) the permitted facility was at the time being properly operated in accordance with its permit or authorization and all applicable CAFO rules and regulations.

(d) Except as provided by this subsection, and §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone) [section], for all other CAFOs, there shall be no discharge of manure, sludge [litter], or wastewater from a CAFO production area.

(1) The operator of the CAFO shall design, construct, operate, and maintain RCSs to contain all wastewater including the runoff and direct precipitation from the 25-year, 24-hour rainfall event for the location of the facility.

(2) [(e)] A discharge that is the result of a chronic or catastrophic rainfall event, or the result of catastrophic conditions, from an RCS that has been properly designed, constructed, operated, and maintained is allowed.

(3) [(f)] Voluntary alternative performance standards may be established in an individual water quality permit for a cattle (other than veal calves) or dairy CAFO, when

requested by a permit applicant. These standards may be established as effluent limitations in lieu of the requirements of paragraph (1) of this subsection [(d) of this section], so long as they are not in conflict with other requirements of this subchapter or other requirements of the commission. Voluntary alternative performance standards shall be consistent with the requirements of 40 CFR §412.31(a)(2).

[(g) Voluntary superior environmental performance standards may be established in an individual water quality permit for a swine, poultry (chickens and turkeys), or veal calf CAFO, when requested by a permit applicant. These standards may be established as effluent limitations in lieu of the requirements of subsection (c) of this section, so long as they are not in conflict with other requirements of this subchapter or other requirements of the commission. Voluntary superior environmental performance standards shall be consistent with the requirements of 40 CFR §412.46(d).]

§321.38. Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. The purpose of this section is to describe the control facility design requirements that apply to concentrated animal feeding operations (CAFOs) [operation (CAFO) general or individual water quality permits or other authorizations under this

subchapter]. Any CAFO operator that does not use a retention control structure (RCS) is not subject to subsections (e), (f), and (g) of this section.

(b) Well buffers. Except as provided by subsection (c) of this section, the control facility of an animal feeding operation (AFO) shall be separated from a well by ensuring a minimum buffer zone, as described in this subsection. An AFO shall not locate a new RCS [retention control structure (RCS)] or holding pen within the required well buffer zones:

(1) public drinking water supply wells - 500 feet;

(2) drinking water wells used for private water supply - 150 feet; or

(3) water wells used exclusively for agriculture irrigation - 100 feet.

(c) Buffer variance. A CAFO operating under an existing authorization may continue the operation and use of any existing land management units (LMUs), holding pens and RCSs located within the required well buffer zones provided they are in accordance with the recharge feature evaluation and certification required under §321.34(f)(3) of this title (relating to Permit Applications). For new wells drilled after July 20, 2004, documentation [Documentation] supporting variances of the buffer zones that were previously authorized shall be kept on site and made available to agency personnel upon request.

(d) 100-year flood plain. All control facilities, including holding pens and RCSs, shall be located outside of the 100-year flood plain unless the facility is protected from inundation and damage that may occur during the 100-year flood event.

(e) RCS design capacity. The following design requirements apply to any [AFO, including any] CAFO.

(1) The design of a control facility shall include measures that will be used to minimize entry of uncontaminated runoff into RCSs.

(2) Any CAFO [AFO] constructing a new[,] or modifying an existing[,] RCS shall ensure that the design specifications and completed construction specifications are certified by a licensed Texas professional engineer. The failure to obtain the certifications or to maintain records verifying the certifications is a violation of this subchapter.

(3) Except as provided in this subsection, each RCS, at a minimum, shall be designed and constructed in accordance with the technical standards developed by the Natural Resources Conservation Service (NRCS), American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, [or] American Society of Testing Materials, or other technical standard approved by the executive director that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas

professional engineer shall document these variations and their appropriateness to the design.

(4) Any existing RCS that has been properly maintained without any modifications and has no apparent structural problems or leakage is considered to be properly designed with respect [and constructed] to [meet] the RCS sizing, embankment design and construction, and liner [capacity] requirements of this section, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, [the ability of] the RCS [to meet the capacity for the design rainfall event] must be certified by a licensed Texas professional engineer as providing protection equivalent to the requirements of this section.

(5) Any RCS documented to have been built in accordance with site-specific NRCS plans and specifications is considered to be in compliance with the design and capacity requirements of this subchapter provided that:

(A) the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, manure, sludge, and wastewater [wastes] generated, etc.); and

(B) the RCS is operated and maintained in accordance with NRCS requirements.

(6) The production area of a new or expanding AFO shall not be constructed in any stream, river, lake, wetland, or playa, except as provided in §321.41 of this title (relating to Special Requirements for Discharges to a Playa).

(7) The design plan must include documentation of the sources of information, assumptions, and calculations used in determining the appropriate volume capacity of the RCSs [retention control structures (RCSs)]. Poultry (chickens and turkeys), swine, or veal calf CAFOs subject to the new source performance standards in subparagraph (B) of this paragraph shall be designed in accordance with subparagraphs (B) and (C) of this paragraph or subparagraphs (B) and (D) of this paragraph. For all other CAFOs, the [The] volume must include design rainfall event runoff and normal operating capacity requirements in accordance with subparagraphs (A) and (C) [(B)] of this paragraph or design rainfall event runoff and evaporation systems in accordance with subparagraphs (A) and (D) [(C)] of this paragraph.

(A) Design rainfall event runoff. All CAFOs, other than poultry (chickens and turkeys), swine, or veal calf CAFOs subject to the new source performance standards in subparagraph (B) of this paragraph, shall have an RCS designed and

constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event, except as required by §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone) or authorized under §321.37(d)(3) of this title (relating to Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) Production Areas).

[(i) New source swine, veal, or poultry (chickens and turkeys) CAFOs. Any swine, veal, or poultry (chickens and turkeys) CAFO subject to the new source performance standards in 40 Code of Federal Regulations §412.46 shall have an RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 100-year, 24-hour rainfall event.]

[(ii) All other AFOs. All other AFOs shall have an RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event, except as required by §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone).]

(B) New source swine, veal, or poultry (chickens and turkeys) CAFOs. Any swine, veal, or poultry (chickens and turkeys) CAFO subject to the new source performance standards in 40 Code of Federal Regulations (CFR) §412.46 shall have an

RCS designed and constructed such that no discharge will occur in accordance with the following:

(i) Information used in the design of the RCS shall include, but is not limited to, the following: design rainfall event, additional minimum capacity for chronic rainfalls identified in the evaluation required by clause (ii) of this subparagraph, the requirements of subparagraph (C) or (D) of this paragraph, additional storage capacity for wastewater intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the RCS.

(ii) An evaluation of the adequacy of the designed RCS using the most recent version of the Soil Plant Air Water (SPAW) Hydrology Tool, or other tool approved by the executive director. 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 LMUs, planned crop rotations consistent with the nutrient management plan, and the final modeled result of no discharges from the designed RCS. For those CAFOs where 100 years of local weather data is not available, a simulation with a confidence interval analysis conducted over a period of 100 years may be used.

(C) [(B)] Design capacity requirements for systems using irrigation.

(i) The RCS shall be designed for the authorized number of animals to include any storage volume required by a hydrologic needs analysis (water balance) that documents that the typical irrigation demands of the adopted crop and irrigated land area will not be exceeded.

(ii) Precipitation inputs to the water balance shall be the average monthly precipitation reported in a National Weather Service current publication.

(iii) The consumptive use requirements of the cropping system shall be developed on a monthly basis, and shall be calculated as a part of the water balance.

(iv) The maximum required storage value calculated by the water balance shall not encroach on the storage volume required <u>for the design rainfall event</u> [under subparagraph (A) of this paragraph].

(v) Wastewater application rates used in the water balance shall not induce uncontrolled runoff or create tailwater that causes a discharge.

(vi) All [waste and] process-generated wastewater produced during a 21-day or greater period.

(vii) Any other relevant volume needed in the water balance, including any required under the air standard permit in §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)).

(D) [(C)] Design requirements for evaporation systems. Evaporation systems shall be designed:

(i) to withstand a ten-year (consecutive) period of maximum recorded monthly rainfall (other than catastrophic). In any month in which a catastrophic rainfall event occurs, the water balance shall replace such an event with not less than the long-term average rainfall for that month as determined by a water balance; and

(ii) to maintain sufficient volume to contain rainfall and rainfall runoff from the design rainfall event [as required by subparagraph (A) of this paragraph] without overflow. The depth for this volume must be at least one vertical foot allocated within the RCS above the volume required in clause (i) of this subparagraph.

(f) Dewatering system. An irrigation system or other liquid removal system used by an AFO must be designed to ensure that the system is capable of dewatering the RCSs on a regular schedule. RCSs shall be equipped with irrigation or wastewater removal systems

capable of dewatering the RCSs whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(g) RCS embankment and liner design. [A permit or authorization shall identify required design specifications for all RCS.]

(1) For RCSs where the depth of water impounded against the embankment at the spillway elevation is three feet or more, the RCS is considered to be designed with an embankment. The pollution prevention plan shall include a description of the design specifications for the RCS embankments. The following design specifications are required for all new construction or the modified portions [and for all structural modifications] of existing RCSs [must describe standards for the quality of soils used, lift thickness and density at optimum moisture content, procedures and minimum requirements for liner and embankment compaction testing, and spillway construction].

(A) Soils used in the embankment shall be free of foreign material such as rocks larger than four inches, trash, brush, and fallen trees.

(B) The embankment shall be constructed in lifts or layers no more than eight inches compacted to six inches thick at a minimum compaction effort of 95% Standard Proctor Density (ASTM D698) at - 1% to +3% optimum moisture content.

(C) All embankment walls shall be stabilized to prevent erosion or deterioration.

(D) Embankment construction must be accompanied by certified compaction tests including in-place density and moisture in accordance with ASTM D1556, D2167, or D2937 for density and D2216, D4634, D4944, or D4959 for moisture, and D2922-91 or D6938-07 for moisture and density, or equivalent testing standards.

(E) Additional protection for new or modified portions of existing RCSs that are constructed with embankments designed to contain runoff from a drainage area shall be constructed with a spillway or other outflow device properly sized according to NRCS design and specifications to protect the integrity of the embankment.

(F) For all new construction or the modified portions of existing RCSs, each RCS must have a minimum of two vertical feet of freeboard constructed with materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet of freeboard between the top of the embankment and the required storage capacity.

(2) For all new construction and for all structural modifications of existing RCSs, each RCS must meet the requirements for lack of hydrologic connection or have a liner consistent with subparagraph (B), (C), or (D) of this paragraph [have a minimum of two vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity, including any additional storage required by an alternative standard].

[(3) The operator shall ensure site-specific documentation is prepared that shows that no significant hydrologic connection exists between the contained wastewater and water in the state. Where the operator cannot document that no significant hydrologic connection exists, RCSs must have a liner consistent with the requirements of this subsection.]

(A) This subparagraph applies to lack of hydrologic connection requirements. Documentation must show that there will be no significant leakage from the RCS; or that any leakage from the RCS will not migrate to water in the state. A permit or authorization will require documentation of the lack of hydrologic connection certified by a licensed Texas professional engineer or licensed Texas professional geoscientist and must include information on the hydraulic conductivity [tested at the optimum moisture

content] and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.

[(B)] If it is claimed that no significant leakage would result from the use of *in-situ* materials, documentation must be provided that leakage will not migrate to waters in the state. The operator must at a minimum include maps showing groundwater flow paths, or that the leakage enters a confined environment. A permit or authorization will require a written determination by an NRCS engineer, [or] a licensed Texas professional engineer or a licensed Texas professional geoscientist that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and waters in the state. [This information will be considered documentation that no significant hydrologic connection exists.]

(B) This subparagraph applies to RCS liners using *in-situ* material. *In-situ* material is undisturbed, in-place, native soil material. *In-situ* materials must at least meet the minimum criteria for hydraulic conductivity, thickness, and calculated specific discharge, as described in subparagraph (C) of this paragraph. Samples shall be collected and analyzed in accordance with subparagraph (E) of this paragraph. This documentation must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist.

(C) This subparagraph applies to constructed or installed earthen liners. Constructed or installed liners must be designed by a licensed Texas professional engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. Compaction tests and post construction sampling and analyses will provide support for the liner certification. Liners shall be designed and constructed [Site-specific conditions may be considered in the design and construction of liners. Where no site-specific assessment has been performed demonstrating that there will be no significant leakage from the RCS or that any leakage from the RCS will not migrate to water in the state, a liner must be designed by a licensed Texas professional engineer and documented] to have hydraulic conductivities no greater than 1 x 10-7 centimeters per second (cm/sec), with a thickness of 1.5 feet or greater or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 x 10-6 cm/sec calculated using Darcy's Law with the water level at the spillway depth. Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements identified in the permit or authorization. [The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer.] The operator shall maintain the liner to minimize the percolation of wastewater through the liner.

(D) This subparagraph applies to geosynthetic liners. Geosynthetic liners that meet the specific discharge requirements in subparagraph (C) of this paragraph

are acceptable if certified by a licensed Texas professional engineer. Documentation must be presented to the executive director for review and approval before putting into service. Installation of the liner shall be certified by a licensed professional engineer that the liner and subgrade were completed according to the manufacturer's recommendations and current standards. Seams shall be completed in accordance with the manufacturer's requirement. When wedge weld seams are used, non-destructive seam testing shall be conducted on the complete length of the wedge weld by standard air pressure testing. The certification must document compliance with all of the following standards: ASTM D5888 Storage and Handling of Geosynthetic Clay Liners, ASTM D5889 Quality Control of Geosynthetic Clay Liners, and ASTM D6102 Guide for Installation of Geosynthetic Clay Liners.

(E) This subparagraph applies to liner sampling and analyses of *in-situ* material and earthen liners.

(i) The licensed Texas professional engineer or licensed Texas professional geoscientist shall use best professional practices to ensure that corings or other liner samples will be appropriately plugged with material that also meets liner requirements of this subsection.

(ii) Samples shall be collected in accordance with ASTM D1587 or other method approved by the executive director. For each RCS, a minimum of two core samples collected from the bottom of the RCS and a minimum of at least one core sample from each sidewall. Additional samples may be necessary based on the best professional judgment of the licensed professional engineer. Distribution of the samples shall be representative of liner characteristics, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.

(iii) For earthen liners, undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D5084, whole pond seepage analysis as described in ASABE Paper Number 034130, Double Ring Infiltrometer (stand pipe), or other method approved by the executive director.

(F) [(D)] A permit or authorization shall include provisions whereby the executive director may, upon written notice, require the operator to install a leak detection system or monitoring well(s), based upon a determination that significant potential exists for the contamination of water in the state or drinking water.

(G) [(E)] Documentation of lack of hydrologic connection, liner, and capacity certifications by a licensed Texas professional engineer or licensed Texas professional geoscientist must be completed for each RCS and kept on site.

(h) Manure storage. The AFO operator shall provide manure storage capacity based upon manure and waste production, land availability, and the NRCS Field Office Technical Guide or equivalent standards. When manure is stockpiled, it shall be stored in a well-drained area with no ponding of water, and the top and sides of stockpiles shall be adequately sloped to ensure proper drainage. Runoff from manure storage piles must be retained on site. If the manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the manure areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

§321.39. [Control Facility] Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. The purpose of this section is to describe the [control facility] operational requirements that apply to concentrated animal feeding operations (CAFOs). Any CAFO operator that does not use a retention control structure (RCS) is not subject to

subsections (b) and (c) of this section [operation (CAFO) general or individual water quality permits or other authorizations allowed by this subchapter].

(b) RCS [Retention control structure (RCS)] operation and maintenance. A CAFO using an RCS for storage and treatment of stormwater [storm water], sludge, or process-generated wastewater, including liquid manure handling systems, shall ensure that the required capacity in the RCS is available to contain rainfall and rainfall runoff from the design [required] rainfall event.

(1) The operator shall restore such capacity after each rainfall event or accumulation of manure, sludge, or process-generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases so that irrigation will not cause runoff.

(2) The normal operating wastewater level in the RCS shall be maintained in accordance with [within] the design of the RCS. If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event [(25-year or 100-year)], the operator must document the conditions that resulted in this occurrence. As soon as irrigation is allowed [not prohibited], the CAFO operator shall irrigate until the water level is at or below the design rainfall level.

(3) If an RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, [then] the CAFO operator shall take reasonable steps to irrigate wastewater to land management units (LMUs) only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from an LMU, the CAFO operator shall collect samples from the drainage pathway at the point of discharge from the LMU, analyze [edge of] the samples [LMU where the discharge occurs] for the parameters identified in §321.44(b)(1) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Notification Requirements), and provide the appropriate notifications in accordance with §321.44(a) of this title. The operator shall orally notify the appropriate regional office within 24 hours of beginning irrigation under this provision and in writing within 14 working days.

(4) A rain gauge capable of measuring the design [required] rainfall event shall be installed and properly maintained.

(5) The CAFO operator shall maintain the liner to inhibit infiltration of wastewater. The CAFO operator shall ensure liners and embankments are protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner or embankment shall be evaluated by a licensed Texas professional engineer within 30 days following discovery of the damage. For

re-certification of an earthen liner following mechanical or structural damage, a minimum of one sample shall be collected and analyzed to document that the liner meets the requirements of the liner certification for that RCS prior to the damage.

(6) The CAFO operator shall install and maintain a permanent pond marker in the RCS, visible from the top of the embankment that identifies, either physically or by documentation in the pollution prevention plan, the volume required for the design rainfall event and minimum treatment volume, in accordance with §321.43(j)(3)(B) of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)).

(c) Sludge. The CAFO operator shall monitor sludge accumulation and depth in an RCS, as necessary, based upon the design sludge storage volume in the RCS.

(1) Sludge shall be removed from the RCSs in accordance with the design schedule for cleanout to prevent the accumulation of sludge from encroaching on the volumes reserved for minimum treatment, if necessary, and the design rainfall event [exceeding the designed sludge volume of the structure].

(2) The operator shall provide written notice to the appropriate regional office of the commission as soon as the RCS cleaning is scheduled, but not less than ten business days prior to [before] cleaning. The operator shall also provide written

verification of completion to the same regional office within five business days after the cleaning is complete [has been completed]. This paragraph does not apply to cleaning of solid separators or settling basins. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Any increase in odors associated with a properly managed cleanout under this subsection will be taken into consideration by the executive director when determining compliance with the provisions of this subchapter.

(d) Spill prevention and recovery. The CAFO operator shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur, materials [material], handling procedures, and storage shall be specified. The CAFO operator shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a cleanup. The CAFO operator shall store, use, and dispose of all [herbicides and] pesticides in accordance with label instructions. There shall be no disposal of [herbicides,] pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering an RCS as a result of stormwater [storm water] transport of properly applied chemicals is not a violation of this section.

(e) Storage of manure and sludge [waste]. A permit or authorization will establish requirements for the temporary storage of manure, [litter,] or sludge not to exceed 30

days, and requirements for permanent storage for more than 30 days. Temporary storage of manure and sludge in the 100-year flood plain, near water courses, or near recharge features is prohibited, unless protected from inundation and damage that may occur during the 100-year runoff event. Contaminated runoff from manure storage piles must be retained on site. If the manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the manure areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

(f) Composting. Composting on site at a CAFO shall be performed in accordance with Chapter 332 of this title (relating to Composting). CAFOs may compost [waste generated on site, including] manure, sludge, [litter, bedding, feed,] and dead animals generated on site. In accordance with Chapter 332 of this title, a CAFO operator may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of the RCS and must be shown on the site plan and accounted for in the RCS design calculations [of the RCS].

(g) Maintenance of animals.

(1) Animals confined at the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.

(2) A CAFO that maintains animals in pastures must maintain crops, vegetation, forage growth, or post-harvest [postharvest] residues in the normal growing season, excluding the feed and water trough areas [and open lots designated on the site map].

(3) Carcass disposal. Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste), unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §§31.3, 58.31(b), and 59.12 (relating to Disposal, Disposal of Diseased or Exposed Livestock, and Carcass Disposal Requirements, respectively). Carcass disposal shall be addressed in the potential pollutant sources section of the pollution prevention plan with management practices to prevent contamination of surface or groundwater, control access, and minimize odors.

(h) Closure required.

(1) The operator shall submit a closure plan to the executive director and the appropriate regional office within 90 days of permanently ceasing operations.

(2) The closure plan must be developed and certified by a licensed Texas professional engineer to meet the standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), and using the guidelines contained in the Texas AgriLife Extension Service/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures).

(3) The RCS or CAFO shall be properly closed within one year of Texas Commission on Environmental Quality receipt of the closure plan or an alternate schedule approved by the executive director. The RCS or CAFO is considered properly closed upon certification by a licensed Texas professional engineer that closure is complete according to the closure plan.

(4) The operator shall maintain or renew its existing authorization and maintain compliance with the requirements of this subchapter until the facility is properly closed.

§321.40. Concentrated Animal Feeding Operation (CAFO) Land Application Requirements.

(a) The purpose of this section is to describe the land application requirements that apply to concentrated animal feeding operations (CAFOs) [operation (CAFO) general or individual water quality permits or other authorizations allowed by this subchapter].

(b) The land application of manure, sludge [litter], or wastewater at agronomic rates and hydrologic needs shall not be considered surface disposal and is not prohibited.

(c) Manure, sludge [litter], or wastewater may be applied to the areas in the 100-year flood plain at agronomic rates not to exceed the hydrologic needs of the crop.

(d) Discharge of manure, sludge [litter], or wastewater from a [the] land management unit (LMU) is prohibited and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.

(e) Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent tailwater discharges to waters in the state, and prevent the occurrence of nuisance conditions.

(f) Land application shall not occur when the ground is frozen or saturated or during rainfall events unless in accordance with §321.39(b)(3) of this title (relating to

[Control Facility] Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)) or as approved by the commission.

(g) The CAFO operator shall not locate a new LMU within the required well buffer zones identified in §321.38(b) of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)), unless additional wellhead protective measures are implemented that will prevent pollutants from entering the well and contaminating groundwater. An exception to the full well buffer zone for a private drinking water well or a water well used exclusively for agricultural irrigation may be approved by the executive director if a licensed Texas professional engineer or licensed Texas professional geoscientist provides accurate documentation showing that additional wellhead protective measures will be or have been implemented that will prevent pollutants from entering the well and contaminating groundwater. Additional protective measures may include a sanitary seal, annular seal, a steel sleeve, or surface slab.

(h) Vegetative buffer strips shall be maintained in accordance with Natural Resources Conservation Service (NRCS) Practice Standard Code 393. The minimum buffer shall be no less than 100 feet of vegetation to be maintained between manure, sludge [litter], or wastewater application areas and water in the state. A buffer is not required for wastewater irrigation when applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per

year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited [The CAFO operator shall maintain the buffer strips in accordance with Natural Resources Conservation Service (NRCS) guidelines].

(i) CAFOs introducing wastewater or chemicals to water wellheads for the purpose of irrigation shall install backflow prevention devices in accordance with requirements contained in 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers) and Chapter 290 of this title (relating to Public Drinking Water), as appropriate.

(j) Nighttime application of manure, sludge [litter], or wastewater by a CAFO shall be allowed only in areas with no occupied residence(s) within 1/4 mile from the outer boundary of the actual area [LMU] receiving manure, sludge [litter], or wastewater application. In areas with an occupied residence within 1/4 mile from the outer boundary of the actual area [LMU] receiving manure, sludge [litter], or wastewater application, application shall only be allowed from one hour after sunrise until one hour before sunset, unless the current resident owner or lessee [occupants] of such residences have agreed [,] in writing[, agreed] to specified [such] nighttime applications.

[(k) Any CAFO operator who owns, operates, controls, rents, or leases land where manure, litter, or wastewater from the CAFO is land applied must be in compliance with the deadline and requirements specified in §321.36(d) of this title (relating to Texas

Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)). Before this deadline, the operator of any existing CAFO must manage nutrients on LMUs according to all other applicable requirements of this subchapter.]

(k) [(1)] Nutrient requirement.

(1) Any land application of manure, sludge [litter], and wastewater shall not exceed the [nutrients necessary to meet the] planned crop requirements. Land application rates of manure, sludge, or [litter, and] wastewater shall be based on the total nutrient concentration, on a dry weight basis, where applicable.

(2) Critical phosphorus level. Land application of manure, sludge, or wastewater [A permit or other authorization] shall not exceed the crop removal rate when results of the annual soil analysis for extractable [establish the appropriate threshold for] phosphorus indicate: [in the soil and the requirements to develop the nutrient utilization plan (NUP). If an operator is required to develop a NUP, the operator shall cease land application of manure, litter or wastewater to the affected area and may resume only after a detailed NUP has been implemented.]

(A) a level greater than 200 parts per million (ppm) for a particular LMU; or

(B) a level greater than 350 ppm for an LMU where the average annual rainfall is 25 inches or less and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less and the closest edge of the field is more than one mile from a named stream; or

(C) if ordered by the executive director to do so in order to protect water in the state.

(3) Dairy CAFOs located in a major sole-source impairment zone shall develop a nutrient utilization plan (NUP) when the annual soil analysis for extractable phosphorus in zone 1 (0 - 6-inch incorporated; 0 - 2 or 2 - 6-inch if not incorporated) depth in an LMU is greater than 200 ppm. State-only CAFOs shall develop a NUP when the annual soil analysis for an LMU indicates the critical phosphorus levels in paragraph (2) of this subsection have been exceeded. A nutrient management plan, based on crop removal certified as meeting the NRCS Practice Standard Code 590 is equivalent to the requirements for a NUP.

(A) If an operator is required to develop a NUP, the operator shall cease land application of manure, sludge, or wastewater to the affected area and may resume only after a NUP is implemented.

(B) [(3) NUP. An NMP (Practice Standard 590) certified as meeting the NRCS standard is equivalent to the requirements for a NUP.] The NUP [, based on crop removal,] must be developed and certified by:

(i) an employee of the NRCS;[,]

(ii) a nutrient management specialist certified by the NRCS;[,]

(iii) the Texas State Soil and Water Conservation Board;[,]

(iv) Texas AgriLife [Cooperative] Extension Service;[,]

(v) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas;[,]

(vi) a [or a professional agronomist or soil scientist certified by the] Certified Professional Agronomist certified through the certification program of the American Society of Agronomy;[,]

(vii) a Certified Professional Soil Scientist certified through the certification program of the Soil Science Society of America; [,] or

(viii) a licensed geoscientist-soil scientist in Texas after approval by the executive director based on a determination by the executive director that another person or entity identified in this subparagraph [paragraph] cannot develop the plan in a timely manner.

(C) After a NUP is implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level. Thereafter, the operator of a dairy CAFO located in a major sole-source impairment zone shall implement the requirements of the nutrient management plan certified in accordance with §321.36(c) [§321.36(d)] of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)) and the operator of other state-only [. All other] CAFOs must follow the requirements in this section.

(D) [(4)] Land [For a CAFO, land] application under the terms of the NUP may begin 30 days after the plan is filed with the executive director, unless before that time the executive director has returned the plan for failure to comply with all the requirements of this subsection.

(l) Runoff from an LMU. Where manure, sludge, or wastewater is applied in accordance with a site-specific nutrient management plan that complies with §321.36(c) of this title or when the land application conforms to this section, precipitation-related runoff from LMUs is authorized as:

(1) a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or

(2) an agricultural stormwater discharge for all other sources.

(m) Sampling and Testing.

(1) Initial sampling. Before commencing land application of manure, sludge, or wastewater on LMUs and before resuming land application on LMUs where manure, sludge, or wastewater was not applied during the preceding year, the operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(2) Annual Sampling. The operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(3) The operator shall make the most recent nutrient analysis available to any recipient of manure, sludge, or wastewater.

(4) Sampling procedures. The operator shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall be collected using approved methods described in the agency's guidance RG-408 entitled "Soil Sampling for Concentrated Animal Feeding Operations."

(B) Samples shall be collected by the operator or its designee and analyzed by a soil testing laboratory annually, except when crop rotations or inclement weather require a change in the sampling time. The pollution prevention plan shall contain documentation to explain the reasons for adjusting the sampling timeframe.

(C) Obtain one composite sample for each LMU and per uniform soil type (soils with the same characteristics and texture) within the LMU.

(D) Composite samples shall be comprised of 10 - 15 randomly sampled cores at a depth of zero to six inches.

(5) Laboratory analysis. The operator shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include: nitrate reported as nitrogen in ppm; phosphorus (extractable, ppm, using Mehlich III extractant with Inductively Coupled Plasma analysis); potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm); soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH (soil:water, 1:2 ratio).

§321.44. Concentrated Animal Feeding Operation (CAFO) Notification Requirements.

(a) Discharge notification. If for any reason there is a discharge to water in the state, the concentrated animal feeding operation (CAFO) operator shall notify the appropriate regional office orally within 24 hours of becoming aware of the discharge or by the next business day and in writing [upon discovery of the discharge, whichever occurs first. The CAFO operator shall also submit written notice,] within 14 business [working] days of the discharge from the retention control structure or any component of the manure [waste]

handling or land application system to the Office of Compliance and Enforcement, Enforcement Division. In addition, the operator shall document the following information, keep the information on site, and submit the information to the appropriate regional office within 14 business [working] days of becoming aware of such discharge. The notification must include:

(1) a description and cause of the discharge, including a description of the flow path to the receiving water body;

(2) an estimation of the volume discharged;

(3) the period of discharge, including exact dates and times, and, if not corrected, the anticipated time the discharge is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the discharge;

(4) if caused by a precipitation event(s), the date(s) of the event(s) and the rainfall amount(s) recorded from the on-site rain gauge; [and]

(5) results of analysis as required by subsection (b) of this section; and [.]

(6) any upset which exceeds any effluent limitation in the permit or authorization.

(b) Discharge monitoring. A permit or authorization will establish requirements for sample collection and analysis, sample type and frequency, and the parameters to be monitored.

(1) The effluent shall be analyzed by [Sample analysis of the discharge must, at] a [minimum, include] National Environmental Laboratory Accreditation Conference accredited lab for the following parameters:

(A) *Escherichia coli* [fecal coliform bacteria];

[(B) total coliform;]

(B) [(C)] five-day biochemical oxygen demand (BOD 5);

(C) [(D)] total suspended solids (TSS);

(D) [(E)] Ammonia Nitrogen (as N);

(E) [(F)] Nitrate (as N);

(F) [(G)] total dissolved solids (TDS);

(G) [(H)] total phosphorus (as P); and

(H) [(I)] any pesticide which the operator has reason to believe could be in the discharge.

(2) If the operator is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes [hurricane], tornadoes, electrical storms, etc.), the operator shall document why discharge samples could not be collected. Once dangerous conditions have passed, the operator shall conduct the required sampling and analyses.

(3) In the event that a discharge occurs outside of the normal business hours of the testing laboratory, which causes the maximum hold time to lapse, the operator shall collect a secondary sample from the retention control structure, and have it analyzed on the first business day for each parameter where the maximum hold time is exceeded.

(c) Construction notification. After all initial construction activity has been completed, and before beginning operations, an operator of a new CAFO must notify the appropriate regional office orally that the facility is commencing operations.

§321.46. Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting.

(a) Pollution prevention plan (PPP).

(1) A permit or authorization will establish requirements for the development of a PPP. PPPs shall be prepared in accordance with good engineering practices and shall include measures necessary to limit the discharge of pollutants to or adjacent to water in the state. The plan shall describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of this subchapter. The plan shall identify a specific individual(s) at the facility who is responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's PPP.

(2) The plan shall be signed by the operator or other signatory authority in accordance with §305.44 of this title (relating to Signatories to Applications), and the plan shall be retained on site.

(3) Upon completion of a PPP review, the executive director may notify the operator of a concentrated animal feeding operation (CAFO) at any time that the plan does not meet one or more of the minimum requirements of this subchapter. After such notification from the executive director, the operator shall make changes to the plan within 90 days after such notification, unless otherwise provided by the executive director.

(4) The operator of the CAFO shall revise the plan:

(A) before any change in the acreage [number] or boundaries [configuration] of land management units (LMUs);

(B) before any increase in the maximum number of animals;

(C) before operation of any new control facilities;

(D) before any change which [that] has a significant effect on the potential for the discharge of pollutants to water in the state;

(E) if the PPP is not effective in achieving the general objectives of controlling discharges of pollutants from the production area [CAFO] or LMU(s); or

(F) within 90 days following written notification from the executive director that the plan does not meet one or more of the minimum requirements of this section.

(5) Where design, planning, construction, operation and maintenance, or other documentation equivalent to PPP requirements are contained in site specific-plans prepared and certified by the Natural Resources Conservation Service (NRCS), Texas State Soil and Water Conservation Board, or their designee, that information may be used [information in the plans are sufficient] to document best management practices (BMPs) or applicable portions of the technical requirements in this subchapter. Where provisions in the certified plan are substituted for applicable BMPs or portions of the PPP, the PPP must refer to the appropriate section of the certified plan. If the PPP contains a reference to a certified plan, a copy of the certified plan must be kept with [in] the PPP.

(6) [The PPP shall provide a description of potential pollutant sources.] Potential pollutant sources include any activity or material of sufficient quantity that may reasonably be expected to add [contain] pollutants to surface water in [at] the state from the facility. [, including the CAFO,] The owner shall conduct a thorough site inspection of

the [associated control facilities,] facility to identify all potential pollutant sources. The inspection shall include all land that is part of the production area and LMUs. An evaluation of [potential] pollutant sources shall identify the types of potential pollutant sources, provide a description of the [potential] pollutant sources, and indicate all measures that will be used to prevent contamination from the [potential] pollutant sources.

(7) The operator shall maintain and update the following items as part of the PPP [A permit or authorization will establish requirements for the development and retention by the operator of]:

(A) a site map, showing the production area and include, at a minimum, pens and open lots, barns, berms, permanent manure storage areas, composting areas, control facilities including retention control structures (RCSs), water wells (abandoned and in use), surface water in the state, and dead animal burial sites; including a depiction of buffer zones and setbacks;

(B) LMU Map, showing the boundary and acreage of each LMU; all buffer zones, the location of the production area, water wells (abandoned and in use) that are onsite or within 500 feet of the facility boundary, all surface water in the state located onsite and within one mile of the facility boundary, and the facility boundary.

(C) [(B)] soil, crop, and crop nutrient information;

(D) [(C)] a description of land application procedures and equipment used; and

(E) [(D)] a description of BMPs utilized to minimize the entry of uncontaminated runoff into the control facility and RCS [retention control structure (RCS)].

(b) Management documentation. A permit or authorization will establish additional requirements for recordkeeping and documentation. At a minimum, these records must include:

(1) a copy of the administratively complete and technically complete individual water quality permit application, notice of intent seeking authorization under a CAFO general permit, and the written authorization issued by the commission or executive director, for any facility required to obtain written authorization;

(2) the RCS management plan, if applicable;

(3) procedures for spill prevention and recovery;

(4) a copy of the [approved] recharge feature certification, if applicable;

(5) the groundwater monitoring plan associated with the use of a playa;

(6) a copy of the comprehensive nutrient management plan, nutrient management plan or nutrient utilization plan, if required;

(7) site-specific documentation that no significant hydrologic connection exists between the contained wastewater and water in the state;

(8) any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge [litter], or wastewater;

(9) the odor control plan requirements established in §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)); and

(10) documentation of employee training, including dates when training occurred and, for dairy outreach program area (DOPA)-required training, verification of the date, time of attendance, and completion of training.

(c) Required inspections. The CAFO operator shall perform the routine inspections described in this subsection to determine preventive maintenance and repair needs. Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition [Site evaluation].

(1) CAFO operators shall conduct a daily inspection of all water lines, including drinking water and cooling water lines that are located within the drainage area of the RCSs. These daily inspections shall be recorded in the PPP either daily or in the weekly report.

(2) CAFO operators shall conduct a weekly inspection of all control facilities and equipment used during that week for land application of manure, sludge, or wastewater. An inspection must include all stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to each RCS. The weekly inspection will note the level of liquid in each RCS as indicated by the pond marker.

(3) CAFO operators shall conduct monthly inspections on mortality management systems, including containers, burial sites, composting facilities, incinerators, and chemical storage and disposal areas.

(4) A complete site inspection of the CAFO and LMUs shall be conducted and documentation of the findings of the inspection made at least once per year. The inspection shall include:

(A) a review of the list of potential pollutant sources to ensure it is current;

(B) the inspection of all controls and operations outlined in the PPP to reduce the potential for pollutants to be transported off the CAFO; and

(C) updating the PPP to reflect the current conditions.

(5) [(1)] Once every five years, beginning five years after initial authorization under this subchapter, any CAFO operator who uses an RCS shall have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, and review existing liner documentation. The engineer shall [, and] complete and certify a report of their findings that must be kept with the PPP.

[(2) A complete inspection of the facility, including the CAFO, the associated control facilities, and LMUs shall be completed by the CAFO operator and a report

documenting the findings of the inspection made at least once per year. The inspection shall verify that:]

[(A) the description of potential pollutant sources is accurate;]

[(B) the site plan/map has been updated or otherwise modified to reflect current conditions;]

[(C) the controls outlined in the PPP to reduce pollutants and avoid nuisance conditions are being implemented and are adequate; and]

[(D) records documenting significant observations made during the site inspection.]

(d) Recordkeeping requirements. The CAFO operator shall keep records in the PPP [on site] for a minimum of five years from the date the record was created. Upon [and shall submit them within five days of a] written request, any of the records maintained to comply with the permit shall be submitted to [by] the executive director within five business days of the operator receiving the request. The records shall document the inspections and actions taken in response to deficiencies identified during any inspection. A CAFO operator shall correct all the deficiencies within 30 days or shall document the

factors preventing immediate correction and submit to the executive director an explanation of the factors that prevented the correction of the deficiencies. Any CAFO operator that does not use an RCS is not subject to paragraphs (3) - (6) [(5)] and (8) [(7)] of this subsection. The following records must be included unless otherwise specified:

(1) a list of any significant spills of potential pollutants at the CAFO that have a significant potential to reach water in the state;

(2) a log of wastewater, manure, [litter,] and sludge removed from the CAFO, other than single pickup truck loads, that shows the dates and[,] times of removal from the CAFO, name and address of the [, and] recipient, amount (in wet tons, dry tons, cubic yards, acre-inches, acre-feet, or gallons) of manure, sludge, or wastewater;

(3) a log of all daily measurable rainfall events, including the measured rainfall;

(4) a log of all weekly wastewater levels observed in the RCS, or daily wastewater levels in a major sole-source impairment zone;

(5) documentation of liner maintenance by an NRCS engineer, licensed Texas professional engineer, or qualified groundwater scientist;

(6) documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankments and liners;

(7) [(6)] groundwater monitoring records, if required by §321.41 of this title (relating to Special Requirements for Discharges to a Playa);

(8) [(7)] records that show the control facilities have been inspected for structural integrity and maintenance, the date of each inspection, and a description of the findings;

(9) records describing mortality management practices;

(10) [(8)] a log of all manure, sludge [litter], and wastewater used at the CAFO updated at least monthly. For CAFOs where manure, sludge [litter], or wastewater is applied on LMUs [property owned, operated, controlled, rented, or leased by the CAFO owner or operator], such records must include the following information:

(A) date of manure, sludge [litter], or wastewater application to each LMU;

(B) location of the specific LMU and the volume applied during each application event;

(C) acreage of each individual crop on which manure, sludge [litter], or wastewater is applied;

(D) basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than manure, sludge [litter], or wastewater on a dry basis;

(E) the percentage of moisture content of the manure;

(F) actual annual yield of each harvested crop; and

(G) weather conditions (such as the temperature, precipitation, and cloud cover) during the land application and 24 hours before and after the land application;

(11) [(9)] annual nutrient analysis for [at least one representative sample of] irrigation wastewater, sludge, if applicable, and [one representative sample of] manure[/litter for total nitrogen, total phosphorus, and total potassium];

(12) documentation describing any discharge into water in the state including the date, time, volume of overflow, a copy of the notification(s) provided to the regional office, and sample analysis results associated with the discharge;

(13) [(10)] the results of initial and annual soil analysis reports as required by this subchapter; and

(14) [(11)] copies of all notifications to the executive director, including any made to a Texas Commission on Environmental Quality regional office, as required by this subchapter, a permit, or authorization.

(e) Reporting requirements.

(1) The CAFO operator shall furnish to the appropriate regional Texas Commission on Environmental Quality office and the commission's Office of Compliance and Enforcement, Enforcement Division in Austin, soil testing analysis of all soil samples with the annual report due February 15 of each year.

(2) CAFO operators shall provide all other reports required by this subchapter to the Office of Compliance and Enforcement, Enforcement Division.

§321.47. Requirements for Animal Feeding Operations (AFOs) Not Defined or Designated As Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. This section provides an animal feeding operation (AFO) that is not defined or designated as a concentrated animal feeding operation (CAFO) authorization to operate, and identifies the operational requirements necessary to achieve the purposes of this subchapter.

(b) Applicability.

(1) Except as identified in paragraph (2) of this subsection, the owner or operator of an AFO not defined or designated as a CAFO who uses a control facility to manage manure, sludge [litter], or wastewater generated on site shall comply with all the requirements of this section.

(2) The owner or operator of an AFO not defined or designated as a CAFO who qualifies for, obtains, and is operating under a certified water quality management plan from the Texas State Soil and Water Conservation Board (TSSWCB) and subsection (c)(1) - (4) [(3)] of this section are considered to meet all technical requirements of this section.

(3) The owner of an AFO not defined or designated as a CAFO who uses an alternative treatment practice, such as filter strips (Natural Resources Conservation Service (NRCS) Code 393), constructed wetlands (NRCS Code 656), or vegetated treatment areas (NRCS Code 635), instead of [does not use] a control facility to manage manure, sludge [litter], or wastewater generated on site shall comply with all [adhere to] the [following general] requirements of this section except the requirements mentioned in subsection (d) and (e) of this section.

[(A) The owner shall ensure that manure, litter, or wastewater generated at an AFO is stored, beneficially used, or disposed of in a manner that will protect surface and groundwater quality.]

[(B) The owner shall prevent nuisance conditions and minimize odor conditions.]

(c) General requirements.

(1) An AFO operator must locate, construct, and manage the control facility, alternative treatment practice, and land management unit (LMU) in a manner that will protect surface and groundwater quality.

(2) An AFO operator must prevent nuisance conditions and minimize odor conditions in accordance with the requirements of §321.31(b) of this title (relating to Manure, Litter, and Wastewater Discharge and Air Emission Limitations).

(3) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained to ensure good drainage by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding [The AFO may discharge from the production area, if the discharge is the result of a chronic or catastrophic rainfall event, or catastrophic condition which exceeds the design capacity of a retention control structure (RCS) that has been properly designed, constructed, operated, and maintained. RCSs shall be designed in accordance with §321.38 of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs))].

(4) An AFO shall not expand operations, either in size or numbers of animals, before amending or enlarging the manure [waste] handling procedures and structures to accommodate all additional manure [wastes] that will be generated by the expanded operations.

(5) As applicable to the operation, the production area of a new or expanding AFO must comply with the requirements of §321.41 of this title (relating to Special Requirements for Discharges to a Playa).

(6) All control facilities, alternative treatment practices, [including] holding pens, and retention control structures (RCSs) [RCSs,] must be located outside of the 100-year flood plain unless the structures [control facilities] are protected from inundation and damage that may occur during the 100-year flood event.

(7) Where applicable, equivalent measures contained in a site-specific plan which meet the requirements of this subchapter may be substituted for applicable best management practices and/or portions of the technical requirements in this subchapter. Equivalent measures may be contained in:

(A) United States Department of Agriculture (USDA) - NRCS [Natural Resources Conservation Service (NRCS)] Field Office Technical Guide [(FOTG)] for Texas; [and/]or

(B) TSSWCB rules [regulations]; [and/]or

(C) a certified water quality management plan certified by the TSSWCB; [and/]or

(D) a comprehensive nutrient management plan (CNMP) certified by the TSSWCB, the USDA - NRCS, or their designee.

(8) The AFO operator shall adhere to the well buffer requirements in §321.38(b) of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)) and §321.40(g) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements).

(d) Control facilities.

(1) The AFO operator shall minimize entry of uncontaminated runoff [non-process wastewater] into RCSs. Such measures may include the construction of berms, embankments, or similar structures.

(2) The AFO may discharge from the production area if the discharge is the result of a chronic or catastrophic rainfall event, or catastrophic condition that exceeds the design capacity of an RCS that has been properly designed, constructed, operated, and maintained. RCSs shall be designed in accordance with §321.38 of this title. [Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained to ensure good drainage by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding and to minimize the entrance of uncontaminated storm water to the RCS.]

(3) The AFO operator constructing a new or modifying an existing RCS shall ensure that all construction and design is certified by a licensed Texas professional engineer. The certification shall be signed and sealed in accordance with the requirements of the Texas [State] Board of Professional Engineers. All RCS design and construction shall, at a minimum, be in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, American Society of Testing Materials, or other technical [The operator must use those] standards approved by the executive director, that are in effect [current] at the time of construction. Where site-specific variations are warranted, the operator must ensure a licensed Texas professional engineer documents these variations and their appropriateness to the plan.

(4) Existing RCSs that [facilities which] have been properly maintained without any modifications and have [show] no apparent [signs of] structural problems [breakage] or leakage will be considered to be properly designed and constructed with respect to the RCS sizing, embankment design and construction, and liner requirements of this subchapter, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, the RCS must be certified by a licensed Texas professional engineer as providing protection equivalent to the requirements of this section. Structures built in accordance with site-specific NRCS plans and specifications will be considered to be in compliance with the

design and capacity requirements of this subchapter if the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, manure [wastes] generated, etc.) and the RCS is operated and maintained in accordance with NRCS requirements.

(5) RCS embankments and liners shall be designed and constructed in accordance with the requirements of §321.38 of this title.

[(6) The AFO operator shall adhere to the well buffer requirements in §321.38 of this title.]

(6) [(7)] The AFO operator must maintain copies of documentation of the sources of information, assumptions, and calculations used in determining the appropriate volume capacity of the RCSs [retention facilities].

(7) [(8)] An irrigation system or other liquid manure removal system used by an AFO must be designed to ensure that the system is capable of dewatering the RCSs on a regular schedule. RCSs shall be equipped with [either] irrigation, [evaporation,] or wastewater [liquid] removal systems capable of dewatering the RCSs whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(8) [(9)] Sludge shall be removed from RCSs [in accordance with the design schedule for cleanout] to prevent the accumulation of sludge from [exceeding the designed sludge volume of the structure] encroaching on other required storage volumes.

(e) Operation and maintenance.

(1) Sufficient volume shall be maintained at all times within the RCS to accommodate sludge, wastewaters, and contaminated stormwater [storm water] (rainwater runoff and direct precipitation) from the AFO facility.

(2) The operator shall restore such capacity after each rainfall event or accumulation of manure, sludge, or process-generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases so that irrigation will not cause runoff.

(3) The normal operating wastewater level in the RCS shall be maintained within the design of the RCS. If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event [(25-year or 100-year)] the operator must document the conditions that resulted in this occurrence. As soon as irrigation is not prohibited, the AFO operator shall irrigate until the water level is at or below the design rainfall level.

(4) Adequate equipment shall be available and maintained in good working order to remove such manure, sludge, [waste] and wastewater from the RCS as required to maintain the required volume in [retention capacity of the facility for] compliance with this subchapter.

(5) A rain gauge capable of measuring the design [required] rainfall event shall be installed on site and properly maintained.

(6) The AFO operator shall install and maintain a [A] permanent pond marker [(measuring device) shall be maintained] in the RCS, visible from the top of the embankment that identifies, either physically or by onsite documentation, [to show the following:] the volume required for the design [a 25-year, 24-hour] rainfall event [or a 100-year, 24-hour rainfall event, as required by the facility's design standard; and the predetermined minimum treatment volume within any treatment lagoon. The markings on the marker shall be visible from the top of the levee].

(7) The AFO operator shall ensure that liners are protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or

structural damage to the liner shall be evaluated by a licensed Texas professional engineer within 30 days following discovery of the damage.

(8) The AFO operator shall maintain ponds, pipes, ditches, pumps, and diversion and irrigation equipment to ensure ability to fully comply with the terms of this subchapter.

(9) An AFO operator using a liquid manure handling system shall scrape or flush accumulated manure at least once per week or in accordance with proper design and maintenance of the facility.

(10) If an RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, the AFO operator shall take reasonable steps to irrigate wastewater to LMUs only to the extent necessary to prevent overflow from the RCS.

(f) Land application.

(1) The runoff of manure, sludge [litter], or wastewater to water in the state as the result of the application of manure, sludge [litter], or wastewater from an AFO is

authorized provided the land application activity is implemented in accordance with a plan for nutrient management detailed in this section.

(2) The AFO operator shall apply manure, sludge [litter], and wastewater uniformly to suitable land at appropriate times and at agronomic rates. Timing and rate of applications shall be in response to crop needs, assuming usual nutrient losses, expected precipitation, and soil conditions.

(3) The AFO operator shall develop and utilize the information in this paragraph for land application unless a nutrient management plan (NMP) [an NMP] is developed and implemented. At that time, the NMP must be followed for land application. The AFO operator must adhere to the following:

(A) a site map showing the location of all LMUs [any land application areas, either on site or off site which are owned, operated, controlled, rented, or leased by the facility owner or operator which will be utilized for land application of waste or wastewater];

(B) the location, description, and limitations of the major soil types within the identified LMUs, and a plan to address the soil limitations;

(C) crop types and rotations to be implemented on an annual basis;

(D) predicted yield goals based on the major soil types within the identified LMUs;

(E) procedures for calculating nutrient budgets to be used to determine application rates;

(F) a detailed description of the type of equipment and method of application to be used in applying the manure, sludge [waste] or wastewater; and

(G) projected rates and timing of application of the manure, sludge, and wastewater as well as other sources of nutrients that will be applied to the LMUs.

(4) Discharge of manure, sludge [litter], or wastewater from the LMU is prohibited and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.

(5) Application rates of manure, sludge, and wastewater shall not exceed the crop requirement of the crop or planned crop planting [with any land application of

wastewater and/or manure]. Land application rates of manure sludge, and wastewater shall be based on the available nutrient content of the manure, sludge, and wastewater.

(6) Land application shall not occur when the ground is frozen or saturated or during rainfall events, unless in accordance with §321.39(b)(3) of this title (relating to Operational [Control Facility] Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)).

(7) Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent discharge of tailwater to waters in the state, prevent pollution of waters in the state, and prevent the occurrence of nuisance conditions.

(8) The land application of manure, sludge [litter], and wastewater at agronomic rates shall not be considered surface disposal and is not prohibited.

(9) Manure, sludge [litter], or wastewater may be applied to the areas in the 100-year flood plain at agronomic rates not to exceed the hydrologic needs of the crop.

(10) The AFO operator shall develop and maintain the calculations and assumptions used for determining land application rates and all nutrient analysis data.

(11) The AFO operator shall annually analyze at least one representative sample of irrigation wastewater and sludge, if applicable, and one representative sample of manure[/litter] for total nitrogen, total phosphorus, and total potassium.

(12) Vegetative buffer strips shall be no less than 100 feet of vegetation to be maintained between manure, sludge, [waste] or wastewater application areas and surface water and watercourses. The AFO operator shall maintain the buffer strips in accordance with NRCS guidelines. A buffer is not required for wastewater irrigation when applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited.

(13) Manure[/litter] and sludge storage capacity requirements based upon manure[/litter] and sludge [waste] production, land availability, and [the USDA -] NRCS or equivalent standards [FOTG for Texas] shall be provided. [Permanent storage structures for AFO operations must meet NRCS design specifications. All litter/manure removed from operation and not temporarily]. Manure or sludge stored for more than 30 days must be stored [located] within the drainage area of an [the] RCS, or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated stormwater [well-drained area with no ponding of water, and where the top and sides of

stockpiles are adequately sloped to ensure proper drainage to prevent polluted rainfall] runoff from the storage area. Storage for more than 30 days is prohibited in the 100-year flood plain.

(14) Temporary storage of manure and sludge shall not exceed 30 days and is allowed only in LMUs or an RCS drainage area. Temporary storage of manure or sludge in the 100-year flood plain, near water courses or recharge features is prohibited unless protected from [by berms or other structures sufficient to prevent] inundation and damage that may occur during the [a] 100-year flood event [storm]. [Temporary storage of manure/litter shall not exceed 30 days and is only allowed in LMUs. Polluted] Contaminated runoff from manure[/litter] and sludge storage piles must be retained on site.

(15) Any dairy AFO that is located in the major sole-source impairment zone, as defined under §321.32 of this title (relating to Definitions), at a minimum must provide for management and disposal of manure [waste] in accordance with §321.42(i) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone).

(16) Nighttime application of liquid or solid manure [waste] shall be allowed only in areas with no occupied residence(s) within 1/4 mile from the outer boundary of the LMU receiving manure[/litter], sludge, or wastewater application. In areas with an

occupied residence within 1/4 mile from the outer boundary of the LMU, application shall only be allowed from one hour after sunrise until one hour before sunset, unless the current occupants of such residences have, in writing, agreed to such nighttime applications.

(17) AFOs introducing wastewater or chemicals to water wellheads for the purpose of irrigation shall install backflow prevention devices in accordance with requirements contained in 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers).

(18) Composting on site at an AFO shall be performed in accordance with Chapter 332 of this title (relating to Composting). AFOs may compost manure [waste] generated on site, including manure, sludge [litter], bedding, feed, and dead animals. In accordance with Chapter 332 of this title, an AFO operator may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas shall be located within the drainage of the RCS. The runoff volume from compost areas shall be accounted for in the design of the RCS.

(19) Maintenance of animals.

(A) Animals confined at the AFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.

(B) An AFO that maintains animals in pastures must maintain crops, vegetation, forage growth, or postharvest residues in the normal growing season, excluding the feed and water trough areas and designated open lots.

(g) Sampling [Soil sampling] and testing.

(1) Initial sampling. Before commencing application of manure, sludge [The AFO operator is not required to collect soil samples from LMUs where manure, litter], or wastewater on LMUs and [has not been applied during the preceding year. The AFO operator must comply with paragraph (2) of this subsection] before resuming land application on [to such] LMUs. Where manure, sludge, or

[(2) Prior to commencing] wastewater was not applied during the preceding year [irrigation or manure, litter application on land owned, operated, controlled, rented, or leased by the AFO operator, and annually thereafter], the operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable) and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample [samples] from each LMU [of the LMUs] according to the [following] procedures in paragraphs (4) and (5) of this subsection; and

(C) Utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(2) Annual sampling. The operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater, for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(3) The operator shall make the most recent nutrient analysis available to any recipient of manure, sludge, or wastewater.

(4) [(3)] Sampling procedures. The operator shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall [should] be collected using approved methods [procedures] described in the agency's [executive director's] guidance RG-408 [document] entitled "Soil Sampling for Concentrated Animal Feeding Operations." [Nutrient Utilization Plans" as updated.]

(B) [(4)] Samples shall [should] be collected by the operator or its designee and analyzed by a soil testing laboratory annually [within the same 45-day time frame each year].

(C) [(5)] Obtain one [One] composite sample [shall be collected] for each [soil depth zone per] LMU and per uniform soil type (soils with the same characteristics and texture) within the LMU.

(D) [(6)] Composite samples shall be comprised of ten to 15 randomly sampled cores at a depth of zero to six inches. [obtained from each of the following soil depth zones:]

[(A) Zone 1: zero to six inches for LMUs where the manure or litter is incorporated directly into the soil or zero to two inches for LMUs where the waste is not incorporated into the soil; if a zero to two-inch sample is required under this subsection, then an additional sample from the two to six-inch soil depth zone shall be obtained in accordance with the provisions of this section; and]

[(B) Zone 2: six to 24 inches.]

(5) Laboratory analysis. The operator shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include: nitrate reported as nitrogen in parts per million (ppm); phosphorus (extractable, ppm, using Mehlich III extractant with Inductively Coupled Plasma (ICP) analysis); potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm);

soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH (soil:water, 1:2 ratio).

(6) [(7)] Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop use, and yield goal. Soil test reports shall include nutrient recommendations for the crop yield goal.

[(8) Chemical/nutrient parameters and analytical procedures for laboratory analysis of soil samples from LMUs shall include the following:]

[(A) nitrate reported as nitrogen in parts per million (ppm);]

[(B) phosphorus (extractable, ppm) - Mehlich III (ppm), using Inductively Coupled Plasma (ICP);]

[(C) potassium (extractable, ppm);]

[(D) sodium (extractable, ppm);]

[(E) magnesium (extractable, ppm);]

[(F) calcium (extractable, ppm);]

[(G) soluble salts/electrical conductivity (deciSiemens/meter (dS/m)) - determined from extract of 2:1 (volume to volume (v/v)) water/soil mixture; and]

[(H) soil water pH.]

(h) Nutrient utilization plans (NUPs).

(1) Manure, sludge, or wastewater [An operator] shall not be land applied to a [apply any waste or wastewater to the] LMU, unless the land [waste or wastewater] application is implemented in accordance with a detailed NUP when results of the annual soil analysis for extractable phosphorus indicate:

(A) a level greater than 200 ppm [of extractable phosphorus (reported as P) in Zone 1 for a particular LMU]; or

(B) a level greater than 350 ppm [of extractable phosphorus in Zone 1 (zero to six-inch depth)] for an LMU where the average annual rainfall is 25 inches or less,

erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, and the closest edge of the field is more than one mile from a named stream; or

(C) if ordered by the commission to do so in order to protect water [the quality of waters] in the state.

(2) An NMP, based on crop removal, certified in accordance with NRCS Practice Standard Code 590 complies with the requirements of a complete and effective NUP.

(3) A NUP, based on crop removal, shall be developed by an employee of the NRCS, a nutrient management specialist certified by the NRCS, the TSSWCB, Texas AgriLife [Cooperative] Extension Service, an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas, or a professional agronomist or soil scientist certified by the American Registry of Certified Professionals in Agronomy, Crops and Soils, after approval by the executive director based on a determination by the executive director that another person or entity identified in this paragraph cannot develop the plan in a timely manner. No land application under an approved NUP shall cause or contribute to a violation of water quality standards or create a nuisance.

(4) Land application under the terms of the NUP may begin as soon as the plan is developed in accordance with this subsection. After a NUP has been implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below 200 ppm. Thereafter, the AFO operator shall apply manure, litter, or wastewater at agronomic rates according to the requirements of this section.

(i) Recordkeeping requirements.

(1) Records required under this subsection must be kept on site for a minimum of five years from the date the record was created. Any AFO operator that does not use an RCS is not subject to subparagraphs (B) - (D) and (F). Unless otherwise specified, records shall include:

(A) a list of any significant spills of pollutants with the potential to reach water in the state;

(B) a schedule for liquid manure [waste] removal;

(C) a date log indicating weekly inspection of wastewater level in the RCS;

(D) a log of all measurable rainfall events;

(E) a copy of the results of initial and annual soils, manure, sludge [litter], and wastewater analyses;

(F) records of dates of inspection of the RCS, and a log of the findings of such inspections [as required under subsection (k)(2) of this section];

(G) the groundwater monitoring plan associated with the use of a playa;

[(H) a copy of the NUP, if required;]

(H) [(I)] site-specific documentation that no significant hydrologic connection exists between the wastewater in the RCS and water in the state; [and]

(I) [(J)] any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge [litter], or wastewater; and[.]

(J) a copy of the NUP, if required.

(2) For facilities where manure, sludge [litter], or wastewater is applied on LMUs [property owned, operated, controlled, rented, or leased by the AFO owner or operator], such records shall include the following information:

(A) the date of manure, sludge [litter], or wastewater application to each field;

(B) the location of the specific LMU [application site] and volume or amount applied [the number of acres utilized] during each application event;

(C) the acreage of each individual crop on which manure, sludge [litter], or wastewater is applied;

(D) the assumptions [basis] for calculating [and] the total amount of nitrogen and phosphorus applied per acre to each field, including sources of nutrients other than manure, sludge [litter], and wastewater [; the number of dry tons; and the percentage of nitrogen/phosphorus based] on a dry basis;

(E) the percentage of moisture content of the manure and sludge; and

(F) the actual annual yield of each harvested crop.

(3) Where manure, sludge [litter], or wastewater, if applicable, [is removed from the facility, records must be maintained in accordance with §321.46(d)(8) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting). If manure] is sold or given to other persons for off-site land application or disposal, the operator must maintain a log of: the date of removal from the AFO [CAFO]; the name and address of the recipient [hauler]; and the amount, in wet tons, dry tons, or cubic yards, of manure or gallons of wastewater [waste] removed from the AFO [CAFO]. (A single pickup load need not be recorded.) [Where the wastes are to be land applied by the hauler, the operator must make available to the hauler any nutrient sample analysis of the manure from that year.]

(j) Documentation of liner maintenance. The operator shall have an NRCS engineer, licensed Texas professional engineer, or licensed Texas professional geoscientist review the documentation and conduct [do] a site evaluation every five years.

(k) Groundwater monitoring. In the event that [one or more samples of] groundwater monitoring is [are] required by §321.41 of this title or required by the executive director, the operator shall annually collect a groundwater [must] sample from each well that provides water for the facility. Each sample shall be analyzed for nitrate as nitrogen and chloride where groundwater monitoring is required by §321.41 of this title and analyzed [annually] for nitrate as nitrogen, chloride, and total dissolved solids where

groundwater monitoring is required by the executive director. The operator shall use [using] the methods outlined in the groundwater monitoring [pollution prevention] plan, and compare the analytical results to the baseline data. Data from any required monitoring wells must be submitted to the executive director and kept on site for five years. The first year's sampling shall be considered the baseline data and must be retained on site for the life of the facility, unless otherwise provided by the executive director. If a 10% deviation in concentration of any of the sampled constituents is found, the operator must notify the executive director within 30 days of receiving the analytical results.

(l) Inspections. The AFO operator must conduct the following inspections to assure the facility maintains its efficiency. Records of inspections shall be maintained for a period of five years.

(1) Preventative maintenance program. The operator shall conduct weekly inspections of [periodically inspect designated equipment at] the control facility and land application equipment to determine preventative maintenance or repair needs. Operators that do not use an RCS are required to conduct inspections for applicable portions of their operation as required by this section [LMUs]. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system or the creation of a nuisance. Inspections shall include visual inspections and equipment testing to

uncover conditions that could cause breakdowns or failures resulting in discharge of pollutants to water [waters] in the state or the creation of a nuisance condition.

(2) Site inspection. A complete inspection of the control facility and LMUs shall be done and a report documenting the findings of the inspection made at least once a year. The inspection shall be conducted by the operator to verify that the description of potential pollutant sources is accurate, and the controls necessary to reduce pollutants and avoid nuisance conditions are being implemented and are adequate. Records documenting significant observations made during the site inspection shall be retained. [Records of inspections shall be maintained for a period of five years.]

(m) Notification. An existing or new AFO operator has the continuing obligation to provide the executive director notice of the number of animals in confinement in accordance with the following requirements.

(1) All new AFOs which confine a number of animals that fall within the range of the number of animals specified in any of the categories under §321.32(13)(B) [§321.32(12)(B)] of this title [(relating to Definitions)] shall notify the executive director of their legal entity name, physical location including a map or hand drawn sketch, mailing address, and number of head in confinement.

(2) Such notification shall be in writing and signed by the operator and shall be submitted not later than 180 days after commencement of operation.

(n) Closure required. The AFO operator shall properly close the AFO and RCS in accordance with a closure plan prepared by a licensed Texas professional engineer. The AFO and RCS must be closed within one year of permanently [inactivity or] ceasing [of] operations at the facility[,] or [in accordance with] an alternate [alternative] schedule determined [in a closure plan prepared] by a licensed Texas professional engineer. The closure plan for the RCS must be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments, as updated) and using the guidelines contained in the Texas AgriLife [Cooperative] Extension Service/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures, as updated). The RCS or AFO is considered to be properly closed upon certification by a licensed Texas professional engineer that closure is complete according to the closure plan. AFOs shall maintain compliance with the requirements of this subchapter until the facility has been properly closed.

Application and Declaration of Administrative Completeness). If an amendment is made to the water right to effectuate an interbasin transfer of water for a term, the affected portion of the water right shall be junior to all existing water rights in the basin of origin only for the term of the amendment.

(i) A new water right or amendment to an existing water right for a transfer of water from a river basin in which two or more river authorities or water districts have written agreements or permits that provide for the coordinated operation of their respective reservoirs to maximize the amount of water for beneficial use within their respective water service areas shall be junior in priority to water rights granted in that basin before the time an administratively complete application for the interbasin transfer is filed with the chief clerk in accordance with §281.17 of this title. If an amendment is made to the water right to effectuate an interbasin transfer of water for a term, the affected portion of the water right shall be junior to all existing water rights in the basin of origin only for the term of the amendment.

(j) An appropriator of water for municipal purposes in the basin of origin may, at the appropriator's option, be a party in any hearings under this section. Nothing in this provision shall be construed as adversely affecting the ability of any other potentially affected person to obtain party status.

(k) The provisions that are contained in subsections (b) - (j) of this section that are in addition to those generally required for an application for a new or amended water right do not apply to:

(1) a proposed transfer which in combination with any existing transfers totals less than 3,000 acre-feet of water per annum from the same water right;

(2) a request for an emergency transfer of water as provided by §297.17 of this title;

(3) a proposed transfer from a basin to its adjoining coastal basin;

(4) a proposed transfer of water that is:

(A) imported from a source located wholly outside the boundaries of this state; except water that is imported from a source located in the United Mexican States;

(B) for use in this state; and

(C) transported by using the bed and banks of any flowing natural stream in this state; or

(5) a proposed [~~interbasin~~] transfer from the part of the geographic area of [~~basin of origin to~~] a county or municipality, or the part of the retail service area of a retail public utility as defined by Texas Water Code, §13.002, [~~municipality's retail service area~~] that is [~~partially~~] within the basin of origin for use in the part of the geographic area of the county or municipality, or that contiguous part of the retail service area of the utility, [~~and the municipality's retail service area~~] not within the basin of origin. The further transfer and use of this water outside of such county, municipality, or the part of the retail service area of a retail public utility as defined by Texas Water Code, §13.002 [~~or municipal retail service area~~] as existing at the time of the transfer or as may exist in the future other than back to the basin of origin shall not be exempt under this paragraph. [~~For purposes of this paragraph, a county, municipality, or municipality's retail service area refers to a geographic area.~~]

The agency certifies that legal counsel has reviewed the proposal and found it to be within the state agency's legal authority to adopt.

Filed with the Office of the Secretary of State on February 28, 2014.

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Robert Martinez
Director, Environmental Law Division
Texas Commission on Environmental Quality
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For further information, please call: (512) 239-2613

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CHAPTER 321. CONTROL OF CERTAIN ACTIVITIES BY RULE

SUBCHAPTER B. CONCENTRATED ANIMAL FEEDING OPERATIONS

30 TAC §§321.32 - 321.34, 321.36 - 321.40, 321.44, 321.46, 321.47

The Texas Commission on Environmental Quality (TCEQ, agency, commission) proposes amendments to §§321.32 - 321.34, 321.36 - 321.40, 321.44, 321.46, and 321.47.

Background and Summary of the Factual Basis for the Proposed Rules

These rules implement the federal Concentrated Animal Feeding Operation (CAFO) Regulations and Effluent Guidelines in accordance with the Texas Memorandum of Agreement (MOA) with the United States Environmental Protection Agency (EPA) regarding delegation of the federal National Pollutant Discharge Elimination System (NPDES) CAFO Program.

The primary purpose of the proposed amendments is to implement revised federal CAFO Regulations and Effluent Guidelines in this subchapter that were published in the *Federal Register* on November 20, 2008, and were effective on December 22, 2008, in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO Program. Due to court challenges that successfully vacated portions of the rules, EPA did not finalize these rules until July 19, 2012.

The commission adopted this subchapter in July 2004 for NPDES purposes and to make the Texas rules consistent with federal regulations. The commission modified the CAFO rules in October 2006 to allow dry litter poultry operations located in a sole-source surface drinking water protection zone to obtain authorization under the CAFO general permit rather than by individual permit, to remove the duty to apply for permit coverage for other dry litter poultry CAFOs based on a potential to discharge, and to add a requirement for all CAFOs to develop and implement a Nutrient Management Plan (NMP). The EPA adopted changes to the federal CAFO Regulations and Effluent Guidelines in response to the order issued by the United States Court of Appeals for the Second Circuit in *Waterkeeper Alliance, et al. v. EPA,* 399 F.3d 486 (2d Cir. 2005). The federal rules became effective on December 22, 2008, changing the requirements to operate CAFOs under the Federal Clean Water Act (See 73 *Federal Register* 70418 (November 20, 2008) (to be codified at 40 Code of Federal Regulations (CFR) Parts 9, 122, and 412)). Due to various court challenges that vacated portions of the new rules, the new CAFO rules were not finalized until July 19, 2012. Specifically, the new federal regulations: 1) require permitted CAFOs to submit their NMPs with their applications for individual permits or notices of intent for authorization under

general permits; 2) require permitting authorities to review the NMPs and provide the public with an opportunity for meaningful public review and comment; 3) require incorporation of the terms of the NMP into the NPDES permit; 4) establish a list of changes to the NMP that would constitute a substantial change to the terms of a facilities NMP, thus triggering permit modification and public notice; 5) delete the provision that allowed CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement for new source swine, veal calf, and poultry operations and replaced it with a requirement that the facility demonstrate through a rigorous modeling analysis that it has designed a containment system that will comply with the no discharge requirement; and 6) delete the voluntary superior performance new source performance standard (NSPS) for new swine, veal calf, and poultry operations.

Also, EPA adopted two approaches to determine rates of application of manure, litter, and wastewater in NMPs: the linear rate approach and the narrative rate approach. The commission incorporates only the narrative rate approach.

The EPA recognized in the NPDES delegation MOA with TCEQ that Subchapter B is the authority for the Texas Pollutant Discharge Elimination System (TPDES) CAFO program. The MOA requires that TCEQ adopt federal regulation changes into its state regulations and requirements. Therefore, amendments to the subchapter are necessary to establish the requirements that will allow TCEQ to continue to authorize CAFOs and for consistency with the federal CAFO rules.

The commission took into consideration the following state and federal actions in proposing these amendments to Subchapter B: 1) changes to the federal NPDES CAFO Regulations adopted December 22, 2008, under 40 CFR Parts 122 and 412 and finalized on July 19, 2012; and 2) the NPDES MOA between TCEQ and EPA Region VI (September 14, 1998), which establishes policies, responsibilities, and program commitments to allow for continued assumption of the NPDES program by the TCEQ.

Section by Section Discussion

The commission proposes administrative changes throughout the proposed rulemaking to reflect the agency's current practices and to conform to *Texas Register* and agency guidelines. These proposed changes include correcting rule structure, certain terminology, and grammatical errors. These changes are non-substantive and generally are not specifically discussed in this preamble.

Proposed §321.32 amends several definitions with slight modifications to enhance understanding and readability. The proposed amendment to §321.32 also adds definitions for Annual(ly); Bypass; Cooling pond; Design rainfall event; Dry litter poultry operation; Operational; and Upset, which are common terms used in the proposed amendments to this subchapter. The following terms are no longer used or needed in the proposed amendments and were deleted from this section: Air contaminant; 100-year, 24-hour rainfall event; and Waste.

The proposed amendment to §321.33 deletes subsection (g) that allowed CAFOs that filed an application for an individual permit before July 27, 2004 to continue to operate until the commission acts upon the application because this provision no longer applies to any CAFOs. The proposed amendment adds "increasing application acreage" and "using a crop or yield goal to determine maximum application rates for manure, sludge, or wastewater that is not authorized by the permit or authorization" in the proposed subsection (g) (formerly subsection (h)) as activities that trigger a permit amendment. Section 321.33(j) was deleted from this section and moved to proposed §321.40(l) for organizational purposes. The provision in proposed §321.33(j) (formerly subsection (l)), relating to permits with no expiration date, was deleted because there are no longer any CAFO permits in the state without expiration dates.

The proposed amendment to §321.34(f)(3) revises the description of the recharge feature certification requirements to clarify that the recharge feature certification shall be developed in accordance with TCEQ guidance document RG-433 and to modify wording to be more consistent with use of the guidance documents.

The proposed amendment to §321.36 deletes subsection (c) because the requirements are located in §321.37 and §321.38. The proposed amendment to proposed §321.36(c)(1) (formerly subsection (d)(1)) deletes the deadline to develop and implement an NMP, as this date is already past. This paragraph would also be revised to clarify that only large CAFOs are required to develop and implement an NMP and identify who can certify an NMP. The proposed amendment modifies proposed §321.36(c)(1) (formerly subsection (d)(1)) to incorporate the requirements of the narrative rate approach for developing application rates for manure, sludge, and wastewater. The proposed amendment also adds proposed §321.36(c)(2) to incorporate terms of the NMP; proposed §321.36(c)(3) to incorporate requirements for changes to the NMP; and proposed §321.36(c)(4) - (6) to incorporate requirements for substantial and non-substantial changes to the NMP. Section 321.36(e)(1) and (4) were moved to proposed §321.40(m) and §321.36(e)(2) and (3) were moved to proposed §321.46(d)(2) for organizational consistency. Proposed §321.36(g) was modified to apply only to dairy CAFOs in sole-source impairment zones. Proposed §321.36(g)(3) was revised to reflect the correct name of RG-408. Section 321.36(h) was moved to proposed §321.46(c) for organizational consistency. Section 321.36(i) was moved to proposed §321.46(d) for organizational consistency. Proposed §321.36(j) was revised to add the following requirements to the annual report: actual crop(s) planted and actual yield(s) for each land management unit (LMU); manure, litter, and wastewater analyses; amount of any supplemental fertilizer applied during the reporting period; and results of application rate calculations for each LMU. Section 321.36(k) was moved to proposed §321.39(b); §321.36(l) was moved to proposed §321.39(g); and §321.36(m) was moved to proposed §321.39(h), all for organizational consistency.

Proposed §321.37 changes the title "Effluent Limitations for Discharges from Production Areas" to "Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) Production Areas." The proposed amendment to §321.37(c) replaces the 100-year, 24-hour design rainfall event as a design criteria for new source swine, veal, and poultry CAFOs with a no discharge design criteria, and would add a statement that the upset/bypass requirements in 40 CFR §122.41(m) and (n) apply to new source swine, veal, and poultry CAFOs. Section 321.37(g), which describes voluntary superior environmental performance standards for new source swine, veal, and poultry CAFOs, was deleted for consistency with the federal rule.

Proposed §321.38(a) was revised to clarify that any CAFO operator that does not use a retention control structure (RCS) is not subject to §321.38(e) - (g). Proposed §321.38(e)(7)(A) was reorganized to improve readability and delete the 100-year, 24-hour design criteria for new source swine, veal, and poultry CAFOs.

Proposed §321.38(e)(7)(B) was added to provide the design and modeling criteria for new source swine, veal, and poultry CAFOs. Proposed §321.38(g) was revised to incorporate more detailed design, construction, and testing requirements for RCSs.

Proposed §321.39 changes the title from "Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)" to "Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)." Proposed §321.39(a) was revised to clarify that any CAFO operator that does not use an RCS is not subject to §321.39(b) and (c). Proposed §321.39(b)(2) and (4) were revised to replace references to "25-year or 100-year" and "required rainfall event" with the newly defined term "design rainfall event." Proposed §321.39(b)(5) was revised to clarify liner recertification requirements. Proposed §321.39(b)(6) was moved from §321.36(k). Proposed §321.39(e) was revised to clarify requirements for temporary storage of manure and sludge. Proposed §321.39(g)(3) was moved from §321.36(l).

The proposed amendment to §321.40(h) makes revisions for readability and to clarify that land application of manure, sludge, and wastewater into surface water in the state is not authorized even though buffers are not required in certain circumstances. The proposed amendment deletes §321.40(k) as the deadline has passed. Proposed §321.40(k) (formerly subsection (l)) was changed to "Nutrient requirement." This proposed §321.40(k) was also revised and reformatted for readability and to clarify that nutrient utilization plan (NUP) requirements remain in effect for state-only CAFOs and dairy CAFOs located in major sole-source impairment zones. All other TPDES CAFOs would no longer be required to develop a NUP due to new NMP requirements in proposed §321.36(c) superseding the NUP requirements. Proposed §321.40(l) was moved from §321.33(j). Proposed §321.40(m) was amended to require TPDES CAFOs other than those in a major sole source impairment zone to acquire soil samples at a 0-6-inch depth only.

The proposed amendment to §321.44(a) adds paragraph (6), which adds any upset that exceeds an effluent limitation to the required discharge notification for consistency with federal regulations. The proposed amendment to §321.44(b)(1) deletes the requirements to analyze for fecal and total coliform bacteria and replace it with a requirement to analyze for *Escherichia coli.* The proposed amendment also clarifies that samples must be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab. Proposed §321.44(b)(3) was added to clarify the procedures required in the event of a discharge outside normal business hours when maximum hold times for certain parameters are exceeded.

The proposed amendment revises §321.46(a) to improve readability and to clarify the requirements for what must be included in the pollution prevention plan. Proposed §321.46(c) was revised to incorporate inspection requirements moved from §321.36(h). Proposed §321.46(d) was revised to incorporate recordkeeping requirements moved from 321.36(i).

Proposed §321.47(b)(3) was amended to include examples of alternative practices that may be used instead of a control facility, and §321.47(b)(3)(A) and (B) were deleted and their requirements incorporated into proposed §321.47(c). Section 321.47(c)(3) was moved to proposed §321.47(d)(2) and §321.47(d)(2) was moved to proposed §321.47(c)(3) for organizational consistency. Other provisions in proposed §321.47(c) and (d) were revised for consistency with proposed §321.38 and §321.40. Proposed §321.47(e)(3), (5), and (6) were revised to replace references to "25-year or 100-year" and "required rainfall event" with the newly defined term "design rainfall event." Proposed §321.47(e)(6) was revised for consistency with proposed §321.39. Proposed §321.47(f) was revised for consistency with proposed §321.40. Proposed §321.47(g) was revised for consistency with proposed §321.36(f) and §321.40(m). Proposed §321.47(k) was revised for consistency with §321.41. Proposed §321.47(l)(1) was revised to clarify that inspections of the control facility and land application equipment would be conducted on a weekly basis. Section 321.47(n) was revised for consistency with proposed §321.39(h).

Fiscal Note: Costs to State and Local Government

Nina Chamness, Analyst, Strategic Planning and Assessment, determined that, for the first five-year period the proposed rules are in effect, no significant fiscal implications are anticipated for the agency or other units of state or local governments as a result of administration or enforcement of the proposed rules. The proposed rules affect regulations for CAFO facilities. State agencies or institutions that own or operate CAFOs will be required to comply with the proposed rules, but any cost increases due to compliance with permitting requirements are not expected to be significant.

The proposed rules implement federal changes regarding CAFOs adopted by EPA. The federal rules became effective December 22, 2008, and the agency, which has been delegated responsibility for the federal NPDES, is required to incorporate federal rule changes into state rules by December 22, 2009, in order to maintain its delegation authority to authorize CAFO operations.

The proposed rules amend Chapter 321 and modify permitting requirements for CAFOs in accordance with federal rules. Several provisions of the rules will impact the agency and CAFO owners or operators. Among these provisions are the following: a requirement to submit NMPs with both individual permit applications and with a Notice of Intent (NOI) for authorization for a general permit; a requirement for permitting authorities to review NMPs and provide opportunities for public review and comment; a requirement for public notice if NMP changes constitute a substantial change and trigger permit modification; and a revision of the design criteria for new source swine, veal calf, and poultry CAFOs. This revision requires a facility to evaluate the adequacy of designed RCSs using the Soil, Plant, Air, and Water (SPAW) Field and Pond Hydrology Tool, or other tool approved by the executive director to show that the facility complies with the no discharge requirement of the federal rules instead of relying on design specifications for RCSs.

The proposed rules will require the agency to review more NMPs, mail more notices, and possibly attend more public meetings. The agency does not expect costs related to public meetings to increase significantly as a result of the proposed rules. The agency has had less than ten public meetings within the last five years and only two contested case hearings within the last ten years related to CAFO authorizations and individual permits. Current rules already require NMPs to be submitted with individual permit applications, but NMPs for general permits are only required to be maintained at the facility and updated annually instead of being submitted with the NOI and reviewed by the agency at the time of submission as required by the proposed rules. The agency plans to utilize available resources to implement the proposed rules and they are not expected to have a significant fiscal impact on the agency.

There are an estimated 600 CAFOs in the state that are authorized under the CAFO general permit and approximately 50 CAFOs with individual permits. The proposed rules are not expected to have a fiscal impact on local governments since they do not own or operate CAFOs. Currently only one state agency, the Texas Department of Criminal Justice, owns and operates CAFOs. The Texas Department of Criminal Justice has less than ten CAFO general permit authorizations. Two public universities also have CAFO authorizations.

The agency expects facilities authorized under the CAFO general permit to comply with the proposed rules when the CAFO general permit is re-issued after the term of the current CAFO general permit expires in July, 2014. When the CAFO general permit is re-issued, the final version of these rules will be incorporated into the permit. At that time, if there are no significant changes to the NMP, the regulated state agency will be required to submit the NMP with the required NOI for authorization under the re-issued CAFO general permit and pay the applicable application fee, currently $100 to renew the authorization as required under the current rules. NMPs are required to be updated annually under the current rules, but if the annual update includes significant changes, the regulated state agency will be required to submit a permit amendment, which could cost as much as $6,350 ($5,000 in consultant fees to develop the permit application; $350 application fee; and $1,000 for public notice). If the regulated state agency opens a new source swine, veal, or poultry CAFO, it will be required to perform SPAW Field and Pond Hydrology Tool, or other tool approved, which is estimated to cost $5,000 per CAFO. This fiscal note assumes that state agencies and institutions are in compliance with current rules regarding annual NMPs, there are no significant changes in operations, and they will not open a new source swine, veal, or poultry CAFO. Therefore, the proposed rules are not expected to have a significant fiscal impact on the regulated state agency or institutions.

Public Benefits and Costs

Nina Chamness also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rules will be compliance with federal law and greater opportunity for public participation in the permitting process for CAFOs.

There are an estimated 600 CAFOs in the state that are permitted under the CAFO general permit and approximately 50 CAFOs that have individual permits. Only CAFOs that change their NMPs substantially or that open new source swine, veal, or poultry CAFOs will be affected by the proposed rules. Staff estimates that there may be as many as 15 CAFOs per year that will have substantial changes that would be subject to the requirements in the proposed rules. Individual and the general permit for CAFOs expire every five years after issuance. The CAFOs authorized under the CAFO general permit will be expected to comply with the new rules when the CAFO general permit is re-issued after the term of the current CAFO general permit expires in July, 2014. When the CAFO general permit is re-issued, the final version of these rules will be incorporated into the permit.

When the current permit for a large business expires, the owner or operator will be required to submit their NMP with the renewal application. If no substantial changes are made to existing CAFO NMPs, a large business will only pay the current $100 permit renewal fee. If the owner or operator chooses to make substantial changes to the NMP, they will be required to submit a permit amendment, which could cost as much as $6,350 ($5,000 in consultant fees to develop the permit application; $350 application fee; and $1,000 for public notice). If a large business opens a new source swine, veal, or poultry CAFO, it will also be required to perform SPAW Field and Pond Hydrology Tool, or other tool approved, which is estimated to cost $5,000 per CAFO. Staff estimates that there may be one large business per year that may be affected by the proposed rules, but these costs are not expected to be significant for a large business.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules since a small business would only see costs increase if they choose to make significant operational changes or to build a new source swine, veal, or poultry CAFO. A small business would incur the same costs as those incurred under the current rules when a permit expires. A small business would incur the same costs as those incurred by a large business if it chooses to make significant changes in its NMP or if it chooses to build a new source swine, veal, or poultry CAFO. Staff estimates that there may be as many as 14 small businesses per year that may choose to make significant changes or build new source swine, veal, or poultry CAFOs.

Small Business Regulatory Flexibility Analysis

The commission reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rules are required to comply with federal regulations and are not expected to impact a small business, unless a choice is made to significantly change operations or build a new source swine, veal, or poultry CAFO.

Local Employment Impact Statement

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rules do not adversely affect a local economy in a material way for the first five years that the proposed rules are in effect.

Draft Regulatory Impact Analysis Determination

The commission reviewed the rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rule changes are not subject to Texas Government Code, §2001.0225, because they do not meet the criteria for a "major environmental rule" as defined in that statute.

A "major environmental rule" means a rule that has the specific intent of protecting the environment or reducing risks to human health from environmental exposure; and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

These rules implement the federal CAFO Regulations and Effluent Guidelines in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO Program.

The primary purpose of the proposed amendments is to implement revised federal CAFO Regulations and Effluent Guidelines in this subchapter that were published in the *Federal Register* on November 20, 2008, and were effective on December 22, 2008, in accordance with the MOA with the EPA regarding delegation of the federal NPDES CAFO Program. Due to court challenges that successfully vacated portions of the rules, EPA did not finalize these rules until July 19, 2012.

The specific intent of the proposed rule changes is to implement revised federal CAFO Regulations and Effluent Guidelines in accordance with the MOA between the state of Texas and EPA delegating the NPDES program to the state. The federal CAFO rule revisions were originally effective on December 22, 2008, but due to various court challenges EPA did not finalize the rules until July 19, 2012. TCEQ is required by the MOA to adopt rule changes within one year or within two years if a statutory change is necessary to implement the rule changes.

These changes require CAFOs seeking permitting to submit an NMP with their applications for an individual permit or with their NOI for authorization under the CAFO general permit. The revised rules require TCEQ to review the NMPs, incorporate terms of the NMP into CAFO permits, and provide the public with an opportunity for public review and comment. The amendments also revise the NSPSs for swine, veal, calf, and poultry CAFOs, so that these facilities must evaluate the design of their RCSs to show that there will not be a discharge from those structures under any conditions. Therefore, it is not anticipated that the rules will adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The commission concludes that this rulemaking does not meet the definition of a "major environmental rule."

Additionally, the rulemaking is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b) because it does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225(a) applies to rules adopted by an agency that: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, or adopt a rule solely under the general powers of the agency.

Written comments on the draft regulatory impact analysis determination may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Takings Impact Assessment

The commission evaluated this rulemaking and performed an assessment of whether the proposed rule changes constitute a taking under Texas Government Code, Chapter 2007. The specific purpose of the proposed rule changes are to incorporate the terms of the NMP into CAFO permits and increase public participation in the CAFO permitting process. Additionally, the rulemaking would require new source swine, veal, calf, and poultry operations to size their RCSs so that they do not discharge in any size rain event. The proposed rule changes would substantially advance this stated purpose by inserting and changing current rule language to comply with the stated purpose of the rulemaking.

Promulgation and enforcement of this rulemaking would be neither a statutory nor a constitutional taking of private real property because it only affects real property to the extent of requiring new source swine, veal, calf, and chicken CAFOs to have larger RCSs to prevent discharges of contaminated wastewater.

There are no burdens imposed on private real property, and the benefits to society are increased by preventing discharges from new source swine, veal, calf, and poultry CAFOs. The rule changes do not burden, restrict, or limit an owner's right to property or reduce its value by 25% or more beyond what would otherwise exist in the absence of the regulation. Therefore, these rule changes, if adopted, do not constitute a taking under the Texas Government Code, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the proposed rulemaking and found that it is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §33.201 *et seq.,* and therefore, it must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the proposed rules in accordance with Coastal Coordination Act Implementation Rules at 31 TAC §505.22 and found the proposed rulemaking is consistent with the applicable CMP goals and policies.

CMP goals applicable to the proposed rules include: to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas and to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone.

CMP policies applicable to the proposed rules include: that discharges must comply with water quality-based effluent limits; discharges that increase pollutant loadings to coastal waters must not impair designated uses of coastal waters and must not significantly degrade coastal water quality, unless necessary for important economic or social development; and to the greatest extent practicable, new wastewater outfalls must be located where they will not adversely affect critical areas.

These proposed rules are consistent with CMP goals and policies because these proposed rules do not allow a discharge or allow disposal of manure, litter, or wastewater from Animal Feeding Operations (AFOs) into or adjacent to water in the state, except in accordance with an individual permit, the CAFO general permit, or other authorization issued by the commission. Further, these proposed rules require that manure, litter, and wastewater generated by an AFO under these proposed rules be retained and used in an appropriate and beneficial manner as provided by commission rules, orders, authorizations, the CAFO general permit, or individual permits.

Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the proposed rules are consistent with these CMP goals and policies. These rules do not create or have a direct or significant adverse effect on any coastal natural resource areas because the proposed rules were developed to reduce the possibility of discharges into coastal waters by ensuring that AFOs in all regions of the state, including coastal areas, are properly designed, constructed, operated, and maintained to protect all water bodies, including coastal waters.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on April 8, 2014, at 10:00 a.m. in Building E, Room 201S, at the commission's central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services, at (512) 239-1802. Requests should be made as far in advance as possible.

Submittal of Comments

Written comments may be submitted to Michael Parrish, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-4808. Electronic comments may be submitted at: *http://www5.tceq.texas.gov/rules/ecomments/.* File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2009-011-321-OW. The comment period closes April 14, 2014. Copies of the proposed rulemaking can be obtained from the commission's Web site at *http://www.tceq.texas.gov/nav/rules/propose_adopt.html.* For further information, please contact Chris Ulmann, Water Quality Division, (512) 239-0418.

Statutory Authority

The amendments are proposed under Texas Water Code (TWC), §5.102, which provides the commission with the general authority necessary to carry out its duties and general powers under its jurisdiction; TWC, §5.103 and §5.105, which provides the commission with the general authority to adopt rules; TWC, §26.011, regarding the commission's authority over water quality in the state; TWC, §26.027, regarding the commission's authority to issue permits for discharges into or adjacent to water in the state; TWC, §26.0286, regarding the procedures applicable to permits for certain Concentrated Animal Feeding Operation; TWC, §26.040, which provides the commission the authority to issue general permits to authorize the discharge of waste into or adjacent to water in the state; TWC, §26.041, which allows the commission to use any means provided by TWC, Chapter 26 to prevent a discharge of waste that is injurious to public health; and TWC, §26.121, which prohibits the discharge of waste into or adjacent to any water in the state except as authorized with a commission permit or other authorization.

These amendments implement the TWC, §§5,103, 26.026, and 26.040 in addition to the Federal Clean Water Act, §303 (33 United States Code, §1313).

§321.32. Definitions.

All definitions in Texas Water Code (TWC), Chapter 26 and Chapter 3 and Chapter 305 of this title (relating to Definitions and Consolidated Permits) shall apply to this subchapter and are incorporated by reference. The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Agronomic rates--The land application of animal manure, sludge [~~litter~~], or wastewater at rates of application in accordance with a plan for nutrient management [~~designed to~~] enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth based upon a realistic yield goal.

[~~(2) Air contaminant--Particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor or any combination thereof produced by processes other than natural. Water vapor is not an air contaminant.~~]

(2) [~~(3)~~] Animal feeding operation (AFO)--A lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or post-harvest [~~postharvest~~] residues in the normal growing season over any portion of the lot or facility. Two or more AFOs under common ownership are a single AFO if they adjoin each other, or if they use a common area or system for the beneficial use of manure, sludge, or wastewater [~~wastes~~]. A land management unit is not part of an AFO.

(3) Annual(ly)--Once per calendar year with required events not more than 18 months apart, unless approved in writing by the executive director on a case-by-case basis.

(4) Aquifer--A saturated permeable geologic unit that can transmit, store, and yield to a well, the quality and quantities of groundwater sufficient to provide for a beneficial use. An aquifer can be composed of unconsolidated sands and gravels, permeable sedimentary rocks such as sandstones and limestones, and/or heavily fractured volcanic and crystalline rocks. Groundwater within an aquifer can be confined, unconfined, or perched.

(5) Area land use map--A map that identifies property lines, permanent odor sources, and distances and direction to any occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park within a one-mile radius of the permanent odor sources at the animal feeding operation [~~AFO~~]. The map shall include the north arrow, scale of map, buffer distances, and date that the map was generated and the date that the distances were verified.

(6) Beneficial use--Application of manure, sludge [~~litter~~], or wastewater to land in a manner that does not exceed the agronomic need or rate for a harvested or cover crop. Application of manure, sludge, or wastewater on the land at a rate below or equal to the optimal agronomic rate is considered a beneficial use.

(7) Best management practices (BMPs)--The schedule of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of water in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, land application, or drainage from raw material storage.

(8) Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

(9) [~~(8)~~] Catastrophic conditions--Conditions that cause structural or mechanical damage to the animal feeding operation [~~AFO~~] from natural events including high winds, tornadoes [~~tornados~~], hurricanes, earthquakes, or other natural disasters, other than rainfall events.

(10) [~~(9)~~] Certified nutrient management specialist--An organization in Texas or an individual who is currently certified as a nutrient management specialist through a United States Department of Agriculture-Natural Resources Conservation Service, Texas Certified Crop Advisor's Board or Texas AgriLife Extension Service recognized certification program.

(11) [~~(10)~~] Chronic or catastrophic rainfall event--A series of rainfall events that do not provide opportunity for dewatering a retention control structure and that are equivalent to or greater than the design rainfall event or any single rainfall event that is equivalent to or greater than the design rainfall event.

(12) [~~(11)~~] Certified water quality management plan--A site-specific plan for agricultural or silvicultural lands that includes appropriate land treatment practices, production practices, management measures, technologies, or combinations thereof that when implemented, will achieve a level of pollution prevention or abatement determined by the Texas State Soil and Water Conservation Board, in consultation with the local Soil and Water Conservation District, to be consistent with state water quality standards.

(13) [~~(12)~~] Comprehensive Nutrient Management Plan (CNMP)--A resource management plan containing a grouping of conservation practices and management activities that, when implemented in a conservation system, will help ensure that both agricultural production goals are achieved, and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are minimized.

(14) [~~(13)~~] Concentrated animal feeding operation (CAFO)--Any animal feeding operation (AFO) defined as follows:

(A) Large CAFO--Any AFO that stables or confines and feeds or maintains for a total of 45 days or more in any 12-month period equal to or more than the numbers of animals specified in any of the following categories:

(i) 1,000 cattle other than mature dairy cattle or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs;

(ii) 1,000 veal calves;

(iii) 700 mature dairy cattle (whether milkers or dry cows);

(iv) 2,500 swine, each weighing [~~more than~~] 55 pounds or more; 10,000 swine, each weighing less than 55 pounds;

(v) 500 horses;

(vi) 10,000 sheep or lambs;

(vii) 55,000 turkeys;

(viii) 125,000 chickens (other than laying hens, if the operation does not use a liquid manure [~~waste~~] handling system);

(ix) 30,000 laying hens or broilers (if the operation uses a liquid manure handling system), or 82,000 laying hens (if the operation does not use a liquid manure handling system); or

(x) 5,000 ducks (if the operation uses a liquid manure handling system), or 30,000 ducks (if the operation does not use a liquid manure handling system).[;]

(B) Medium CAFO--Any AFO [~~with the following number of animals~~] that discharges pollutants into water in the state either through a man-made ditch, flushing system, or other similar man-made device, or directly into water in the state with the following number of animals [~~that originates outside of and passes over, across, or through the facility or otherwise comes into direct contact with animals confined in the operation~~]:

(i) 300 to 999 cattle other than mature dairy cattle or veal calves. Cattle includes, but is not limited to, heifers, steers, bulls, and cow/calf pairs;

(ii) 200 to 699 mature dairy cattle (whether milking or dry cows);

(iii) 300 to 999 veal calves;

(iv) 750 to 2,499 swine each weighing 55 pounds or more, or 3,000 to 9,999 swine each weighing less than 55 pounds;

(v) 150 to 499 horses;

(vi) 3,000 to 9,999 sheep or lambs;

(vii) 16,500 to 54,999 turkeys;

(viii) 37,500 to 124,999 chickens (other than laying hens if the operation does not use [~~and other than~~] a liquid manure handling system);

(ix) 9,000 to 29,999 laying hens or broilers (if the operation uses a liquid manure handling system), or 25,000 to 81,999 laying hens (if the operation does not use [~~other than~~] a liquid manure handling system); or

(x) 1,500 to 4,999 ducks (if the operation uses a liquid manure handling system), or 10,000 to 29,999 ducks (if the operation does not use [~~other than~~] a liquid manure handling system).

(C) Small CAFO--Any [~~An~~] AFO that is designated by the executive director as a CAFO because it is a significant contributor of pollutants into or adjacent to water in the state and is not a large or medium CAFO.

(D) State-only CAFO--An AFO that falls within the range of animals in subparagraph (B) of this paragraph and that is [~~either~~] located in the dairy outreach program areas or an AFO designated by the executive director as a CAFO because it is a significant contributor of pollutants into or adjacent to water in the state. A state-only CAFO is authorized under state law.

(15) [~~(14)~~] Control facility--Any system used for the collection and retention of manure, sludge [~~litter~~], or wastewater at [~~on~~] the permitted facility [~~premises~~] until their ultimate use or disposal. This includes all collection ditches, conduits, and swales for the collection of manure, sludge, or [~~runoff and~~] wastewater, and all retention control structures.

(16) Cooling Pond--A shallow man-made structure filled with water for the specific purpose to keep animals cool and promote animal comfort.

(17) [~~(15)~~] Crop removal--The amount of nutrients contained in and removed by harvest of the proposed crop.

(18) [~~(16)~~] Crop requirement--The amount of nutrients that must be present in the soil in order to ensure that the crop nutrient needs are met, while accounting for nutrients that may become unavailable to the crop due to adsorption to soil particles or other natural causes.

(19) [~~(17)~~] Dairy outreach program areas--The area including all of the following counties: [~~Erath,~~] Bosque, Comanche, Erath, Hamilton, Hopkins [~~Comanche~~], Johnson, [~~Hopkins, Wood, and~~] Rains, and Wood.

(20) Design rainfall event--A design parameter corresponding to precipitation frequency values for a given rainfall duration and return period based on United States Department of Commerce, Weather Bureau, Technical Paper 40 or 49, May 1961.

(21) Dry litter poultry operation--A poultry animal feeding operation that does not use a liquid manure handling system.

(22) [~~(18)~~] Edwards Aquifer--As defined in §213.3 of this title (relating to Definitions).

(23) [~~(19)~~] Edwards Aquifer recharge zone--As defined in §213.3 of this title (relating to Definitions).

(24) [~~(20)~~] Groundwater--Subsurface water that occurs below the water table in [~~saturated~~] soils and geologic formations that are saturated[~~, and is~~] other than underflow of a stream or an underground stream.

(25) [~~(21)~~] Historical waste application field--An area of land located in a major sole-source impairment zone that at any time since January 1, 1995, has been owned or controlled by an operator of a concentrated animal feeding operation (CAFO), and on which agricultural manure [~~waste~~] or wastewater from a CAFO has been applied.

(26) [~~(22)~~] Hydrologic connection--The connection and exchange between surface water and groundwater.

(27) [~~(23)~~] Lagoon--A retention control structure used for the biological treatment of liquid organic manure [~~wastes~~]. Lagoons can be aerobic, anaerobic, or facultative depending on their design and can be used in a series to produce a higher quality effluent. Treatment volume must be included in the lagoon design.

(28) [~~(24)~~] Land application--The act of applying manure, sludge [~~litter~~], or wastewater associated with the animal feeding operation including distribution to, or incorporation into, the soil mantle primarily for beneficial use purposes.

(29) [~~(25)~~] Land management unit (LMU)--An area of land owned, operated, controlled, rented, or leased by an animal feeding operation (AFO) owner or operator where [~~to which~~] manure, sludge [~~litter~~], or wastewater from the AFO is or may be applied. This includes land associated with a single center pivot system or a tract of land where [~~on which~~] similar soil characteristics exist and similar management practices are being used. LMUs include historical waste application fields. The term "land management unit" does not apply to any lands not owned, operated, controlled, rented, or leased by the AFO operator for the purpose of off-site land application of manure, where [~~wherein~~] the manure is given or sold to others for land application.

(30) [~~(26)~~] Letter of consent--A document signed by the owner or the authorized legal representative of the owner(s) of an occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park, or a document signed by the governmental entity or the authorized legal representative of the entity responsible for the operation of a school or public park. The document specifically consents to location and operation of permanent odor sources of an animal feeding operation within the minimum buffer distance required under §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFO)).

(31) [~~(27)~~] Liner--Any barrier in the form of a layer; membrane; or blanket; naturally existing, constructed, or installed, to prevent a significant hydrologic connection between wastewater [~~liquids~~] contained in retention control structures and water in the state.

(32) [~~(28)~~] Liquid manure [~~waste~~] handling system--A system in which freshwater or wastewater is used for transporting and land applying manure [~~waste~~].

(33) [~~(29)~~] Major sole-source impairment zone--A watershed that contains a reservoir:

(A) that is used by a municipality as a sole source of drinking water supply for a population, inside and outside of its municipal boundaries, of more than 140,000; and

(B) [~~which~~] at least half of the water flowing into is from a source that, on September 1, 2001, is on the list of impaired state waters adopted by the commission as required by 33 United States Code, §1313(d), as amended:

(i) at least in part because of concerns regarding pathogens and phosphorus; and

(ii) where [~~for which~~] the commission has developed[~~, at some time, prepared~~] and adopted [~~submitted~~] a total maximum daily load [~~standard~~].

(34) [~~(30)~~] Manure--Feces and/or urine excreted by livestock and poultry [~~animals~~]. Manure includes litter [~~manure~~], bedding, compost, feed, and other raw materials commingled with feces and/or urine.

(35) [~~(31)~~] New source--As defined in §305.2 of this title (relating to Definitions). The criteria for new source determination are located in §305.534(b) of this title (relating to New Sources and New Dischargers).

(36) [~~(32)~~] Nuisance--Any discharge of air contaminant(s), including[~~,~~] but not limited to[~~,~~] odors of sufficient concentration and duration that are or may tend to be injurious to or that adversely affects human health or welfare, animal life, vegetation, or property, or that interferes with the normal use and enjoyment of animal life, vegetation, or property.

(37) [~~(33)~~] Nutrient management plan (NMP)--A plan based on the [~~The~~] Natural Resources Conservation Service Practice Standard Code 590, for Texas, [~~plan. A plan~~] to address the amount, rate, source, placement, method of application, [~~form~~] and timing of the application of plant [~~all~~] nutrients, and soil amendments.

(38) [~~(34)~~] Nutrient utilization plan (NUP)--A nutrient management plan [~~developed~~] to evaluate and address site-specific characteristics of a land management unit to ensure that the beneficial use of manure, sludge [~~litter~~], or wastewater is conducted in a manner to prevent adverse impacts on water quality.

[~~(35) One-hundred-year, 24-hour rainfall event--The maximum rainfall event with a probable recurrence interval of once in 100 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments; or equivalent regional or state rainfall information.~~]

(39) [~~(36)~~] One-hundred-year flood plain--Any land area that is subject to a 1.0% or greater chance of flooding in any given year from any source.

(40) [~~(37)~~] Open lot--Pens or similar confinement areas with dirt, concrete, or other paved or hard surfaces wherein livestock or poultry are substantially or entirely exposed to the outside environment except for small portions of the total confinement area affording protection by windbreaks or small shed-type shade areas and that do not sustain crops, vegetation, forage growth, or postharvest residues in the normal growing season. For the purposes of this subchapter, the term "open lot" is synonymous with the terms "dirt lot" or "dry lot," for livestock or poultry, as these terms are commonly used in the agricultural industry.

(41) Operational--The facility is constructed such that animals may be stabled, confined, fed, and maintained in accordance with the permit or authorization. The facility does not have to be operating at the maximum number of animals allowed in the permit or authorization.

(42) [~~(38)~~] Operator--The owner or person responsible for the overall operation of a facility or part of a facility, subject to the provisions of this subchapter.

(43) [~~(39)~~] Permanent odor sources--Those odor sources that may emit odors 24 hours per day. For the purposes of this subchapter, permanent odor sources include, but are not limited to, pens, confinement buildings, lagoons, retention control structures, manure stockpile areas, and solid separators. For the purposes of this subchapter, permanent odor sources shall not include any feed handling facilities, land application equipment, or land management units.

(44) [~~(40)~~] Permittee--Any person issued an individual permit or order or authorized under a general permit.

(45) [~~(41)~~] Pesticide--A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. Pesticide includes insecticides, nematicides, rodenticides, fungicides, and herbicides.

(46) [~~(42)~~] Playa--A flat-floored, clayey bottom of an undrained basin that is located in an arid or semi-arid part of the state, [~~that~~] is naturally dry most of the year, and [~~that~~] collects runoff from rain, but is subject to rapid evaporation.

(47) [~~(43)~~] Process-generated wastewater--Any water directly or indirectly used in [~~or generated by~~] the operation of an animal feeding operation (such as[~~, including~~] spillage or overflow from animal or poultry watering systems that comes in contact with manure [~~waste; water used or generated by~~] washing, cleaning, or flushing pens, barns, [~~and~~] manure pits; direct contact swimming, washing, or spray cooling of animals; and dust control) including[~~; and~~] water used in or resulting from the production of animals or poultry or direct products (e.g., milk, meat, or eggs).

(48) [~~(44)~~] Production area--That part of an animal feeding operation that includes, but is not limited to, the animal confinement area, the manure storage area, the raw materials storage area, and the control facilities.

(49) [~~(45)~~] Protection zone--The area within the watershed of a sole-source surface drinking water supply that is:

(A) within two miles of the normal pool elevation, as shown on a United States Geological Survey (USGS) 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir;

(B) within two miles of that part of a perennial stream that is:

(i) a tributary of a sole-source drinking water supply; and

(ii) within three linear miles upstream of the normal pool elevation, as shown on a USGS 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir; or

(C) within two miles of a sole-source surface drinking water supply river, extending three linear miles upstream from the sole-source water supply intake point.

(50) [~~(46)~~] Recharge feature--Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connection between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connections include, but are not limited to: faults, fractures, sinkholes, or other macro pores that allow direct surface infiltration; a permeable or shallow soil material that overlies an aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer.

(51) [~~(47)~~] Retention control structure (RCS)--Any basin, pond, pit, tank, conveyance, or lagoon [~~basins, ponds, pits, tanks, conveyances, and lagoons~~] used to hold, store, [~~and/~~]or treat manure, [~~litter,~~] wastewater, and sludge. The term [~~This~~] RCS does not include conveyance systems such as irrigation piping or ditches that are designed and maintained to convey but not store any manure, or wastewater, nor does it include cooling ponds located in the production area [~~litter, or water~~].

(52) [~~(48)~~] Significant expansion of concentrated animal feeding operation (CAFO) [~~expansion~~]--Any change to a CAFO that increases the manure [~~waste~~] production at the CAFO by more than 50%, above the maximum operating capacity stated in the initial authorization for [~~notice of intent, during~~] the facility under TXG920000. [~~term of the general permit.~~]

(53) [~~(49)~~] Sludge--Solid, semi-solid, or slurry manure [~~waste~~] generated during the treatment of [~~and/~~]or storage of any manure or wastewater. The term includes material resulting from treatment, coagulation, or sedimentation of manure [~~waste~~] in a retention control structure. Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation) rules covering sludge do not apply to this subchapter.

(54) [~~(50)~~] Soil Plant Air and Water (SPAW) Field Pond Hydrology--SPAW is a Natural Resources Conservation Service (NRCS) water budgeting tool for farm fields, ponds, and inundated wetlands. The SPAW model may be used to perform daily hydrologic water budgeting using the NRCS Runoff Curve Number method.

(55) [~~(51)~~] Sole-source surface drinking water supply--A body of surface water that is identified as a public water supply in §307.10 of this title (relating to Appendices A - E) and is the sole source of supply of a public water supply system, exclusive of emergency water connections.

(56) [~~(52)~~] Technical service provider--An individual, entity, or public agency certified and placed on an approved list by the Natural Resources Conservation Service (NRCS) to provide technical services to program participants or the NRCS.

(57) [~~(53)~~] Twenty-five-year, ten-day rainfall event--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of ten days, as defined by the National Weather Service in Technical Paper Number 49 United States [~~U.S.~~] Weather Bureau and United States Department of Agriculture [~~USDA~~], Two-to-Ten Day Precipitation for Return Periods of 2 to 100 Years in the Contiguous United States (1964)[~~", and subsequent amendments~~]; or equivalent regional or state rainfall information.

(58) [~~(54)~~] Twenty-five-year, 24-hour rainfall event--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961[~~, and subsequent amendments~~]; or equivalent regional or state rainfall information.

(59) [~~(55)~~] United States Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS)--An agency of the United States Department of Agriculture that provides assistance to agricultural producers for planning and installation of conservation practices through conservation and technical programs.

(60) Upset--An exceptional incident where there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facili-

ties, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

[(56) Waste--Manure (feces and urine), litter, bedding, or feedwaste from animal feeding operations.]

(61) [(57)] Wastewater--Any water, including process-generated wastewater and precipitation, which [that] comes into contact with any manure, sludge [litter], bedding, or any raw material or intermediate or final material or product used in or resulting from the production of livestock [animals] or poultry or direct products (e.g., milk, meat, or eggs).

(62) [(58)] Water in the state--Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(63) [(59)] Well--Any artificial excavation into [and/]or below the surface of the earth whether in use, unused, abandoned, capped, or plugged that may be further described as one or more of the following:

(A) an excavation designed to explore for, produce, capture, recharge, or recover water, any mineral, compound, gas, or oil from beneath the land surface;

(B) an excavation designed for the purpose of monitoring any of the physical or chemical properties of water, minerals, geology, or geothermal properties that exist or may exist below the land surface;

(C) an excavation designed to inject [for the injection] or place [placement of] any liquid, solid, gas, vapor, or any combination of liquid, solid, gas, or vapor into any soil or geologic formation below the land surface; or

(D) an excavation designed to lower a water or liquid surface below the land surface either temporarily or permanently for any reason.

§321.33. Applicability and Required Authorizations.

(a) Permit required. All concentrated animal feeding operations (CAFOs) are point sources that require owners and operators to seek and obtain authorization under a water quality general permit or individual permit, except as provided in subsection (f) of this section. CAFO owners and operators have a duty to seek coverage as described in this section.

(b) Individual permit required. A discharge from the following CAFOs may be authorized only under an individual water quality permit in accordance with §321.34 of this title (relating to Permit Applications). Except as provided by subsection [subsections (c) and] (f) of this section, any operator who is required to obtain an individual water quality permit under this subsection may not commence physical construction and/or operation of any new control facilities until an individual water quality permit is issued for that CAFO, or unless otherwise authorized by the commission in accordance with Texas Water Code (TWC), §26.027(c).

(1) Any CAFO located within one mile of coastal natural resource areas as defined by Texas Natural Resources Code, §33.203, unless the CAFO was authorized by the commission prior to January 10, 1997.

(2) Any dairy CAFO located in a major sole-source impairment zone.

(3) Any CAFO where, on the date the executive director determines that the application is administratively complete, any part of the production area of the CAFO is located or proposed to be located within the protection zone of a sole-source surface drinking water supply, in accordance with TWC, §26.0286. This paragraph does not apply to a poultry operation that does not use a liquid manure [waste] handling system, which is commonly referred to as a dry litter poultry operation.

(4) Any CAFO where any part of the production area or land management units is located in a watershed of a segment listed on the current United States Environmental Protection Agency-approved §303(d) list of impaired water bodies, as required by 33 United States Code (USC), §1313(d), and where a total maximum daily load implementation plan has been adopted by the commission that established additional water quality protection measures for CAFOs that are not required by the CAFO general permit.

(5) Any animal feeding operation (AFO) that the executive director designates and requires to be authorized by an individual water quality permit to achieve the policies and purposes enumerated in TWC, §5.120 and §26.003; Texas Health and Safety Code, Chapters 341, 361, or 382; or §321.31 of this title (relating to Manure, Litter, and Wastewater Discharge and Air Emission Limitations). Cases where [for which] the executive director may require an AFO to obtain an individual water quality permit include, but are not limited to, the following:

(A) the operation is located near surface or groundwater resources;

(B) compliance with standards in addition to those listed in this subchapter is necessary in order to protect water in the state from pollution;

(C) the operation is not or has not been in substantial compliance with the standards of this subchapter;

(D) the operation is under a formal commission enforcement order or has been referred to the commission for enforcement action by the Texas State Soil and Water Conservation Board;

(E) the operation does not qualify for a CAFO general permit under §205.4 of this title (relating to Authorizations and Notices of Intent);

(F) the production area or land management unit of any new CAFO is located in a watershed of a segment listed on the current §303(d) list of impaired water bodies for bacteria, nutrients, and/or pathogens as required by 33 USC, §1313(d); or

(G) the executive director determines that an individual water quality permit is appropriate considering other pertinent factors.

(c) Individual permit or general permit required. A discharge from any other CAFO shall be authorized either by an individual water quality permit or an applicable CAFO general permit. Except as provided by [either] subsection [(c) or] (f) of this section, any operator required to obtain an individual water quality permit or authorization under a CAFO general permit according to this subsection may not begin physical construction or operation of any new control facility until the CAFO operator receives an individual water quality permit or authorization under a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

(d) New or expanding AFO. No [After the effective date of this subchapter, no] person may commence construction or operation of a

new CAFO or alter any existing AFO such that it becomes defined as a CAFO without prior authorization through an individual water quality permit or a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c). This subsection does not apply to dry litter poultry operations specified in subsection (f) of this section.

(e) Newly defined CAFO. An existing AFO that becomes classified as a CAFO [after the effective date of this subchapter] may not begin physical construction or operation of any new control facility until the CAFO operator receives authorization through an individual water quality permit or a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

(f) Dry litter poultry operations. [Dry litter poultry CAFOs do not have a duty to apply for permit coverage for a potential to discharge manure or litter into or adjacent to water in the state.] A dry litter poultry CAFO shall only be required to obtain authorization by an individual water quality permit or a CAFO general permit in accordance with subsection (a), (b), or (c) of this section if it proposes to discharge or the executive director determines that a permit is necessary due to an unauthorized discharge; the operation's failure to comply with, or timely obtain, a certified water quality management plan approved by the Texas State Soil and Water Conservation Board; or other pertinent factors. Any dry litter poultry CAFO is authorized to be constructed and operated if the operation has a certified water quality management plan approved by the Texas State Soil and Water Conservation Board or is otherwise in compliance with the plan implementation schedule set forth in the notes following codified TWC, §26.302.

[(g) Facilities operating under an existing authorization. A CAFO currently authorized by registration must apply for an individual water quality permit before July 27, 2004 in order to continue to operate. An application for renewal of a registration will be considered an application for an individual permit, so long as the application fee for an individual permit is paid. If such an application is timely filed, operation of the CAFO under the terms and conditions of the existing permit by rule will continue to be authorized, and authorization under the existing permit by rule does not expire, until final commission action on the permit application or until the CAFO qualifies for coverage under a general permit.]

(g) [(h)] Expansion or modification requirements. A CAFO operator authorized under an individual water quality permit shall comply with §305.62 of this title (relating to Amendments [Amendment]). Before the permittee begins physical construction or operation of any new control facility, the operator must obtain commission authorization. Changes for which an individual [a] permit amendment is required include, but are not limited to:

(1) increasing the maximum number of animals authorized for confinement;

(2) increasing the wastewater storage volume; [and]

(3) adding land management units or increasing application acreage; and[.]

(4) using a crop or yield goal to determine maximum application rates for manure, sludge, or wastewater that is not authorized by the permit or authorization.

(h) [(i)] AFOs that are not defined or designated as CAFOs. Discharges of manure, sludge [litter], or wastewater from an AFO that is not a CAFO as defined in this subchapter are authorized under this subchapter. Requirements applicable to these AFOs are described in §321.47 of this title (relating to Requirements for Animal Feeding Operations (AFOs) Not Defined or Designated As Concentrated Animal Feeding Operations (CAFOs)).

[(j) Runoff from a land management unit.]

[(1) The runoff of manure, litter, or wastewater to water in the state from a CAFO as the result of the proper land application of that manure, litter, or wastewater to land management units under the operator's control is subject to the requirements of this subchapter in accordance with paragraph (2) of this subsection.]

[(2) Where manure, litter, or wastewater is applied in accordance with a site-specific nutrient management plan that complies with §321.36(d) of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)) or when the land application conforms to §321.40 of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements), precipitation-related runoff from land management units under the control of a CAFO operator is authorized as:]

[(A) a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or]

[(B) an agricultural storm water discharge for all other sources.]

(i) [(k)] Edwards Aquifer. New CAFOs are prohibited within [on] the Edwards Aquifer recharge zone.

(j) [(l)] Permit term. Individual and general permits issued under this subchapter shall be effective for a term not to exceed five years from the date the permit is issued. [Any previously issued individual water quality permit or authorization by rule that did not include an expiration date shall expire 180 days after the effective date of this subchapter. The permittee shall comply with the requirements of subsection (g) of this section.]

(k) [(m)] Dual authorization. No person may concurrently hold both an individual water quality permit and authorization under a CAFO general permit for the same CAFO.

(l) [(n)] Additional requirements. Authorization under this subchapter, a general permit, or an individual permit does not release the operator from any responsibilities or requirements under other federal, state, or local statutes or regulations.

(m) [(o)] State-only authorizations. Any AFO that is a state-only CAFO[, as defined by §321.32(13)(D) of this title (relating to Definitions)] shall be authorized in accordance with subsection (a), [or] (b), or (c) of this section.

§321.34. Permit Applications.

(a) Any operator of an animal feeding operation (AFO) who is required to operate under an individual water quality permit by the Texas Water Code, the executive director, or this subchapter shall submit an application in accordance with Chapter 281 of this title (relating to Applications Processing) and Chapter 305 of this title (relating to Consolidated Permits). The applicant shall provide such additional information in support of the application as may be necessary for the executive director to carry out an adequate administrative and technical review of the application.

(b) Applicants shall comply with §§305.41, 305.43, 305.44, and 305.47 of this title (relating to Applicability; Who Applies; Signatories to Applications; and Retention of Application Data) and §1.5(d) of this title (relating to Records of the Agency). Except as provided in subsection (c) of this section, §§305.61 - 305.68 of this title (relating to Applicability; Amendments [Amendment]; Renewal; Transfer of Permits; Permit Denial, Suspension, and Revocation; Revocation and Suspension upon Request or Consent; and Action and Notice on Petition for Revocation or Suspension) apply to applications for water quality permits. Notice, public comment, and contested case hearings on

applications shall be conducted in accordance with commission rules governing applicable individual water quality permit applications.

(1) Any permittee with an issued and effective individual water quality permit shall submit an application for renewal of the permit in accordance with the requirements of Chapter 281 and Chapter 305 of this title, or shall submit a notice of intent (NOI) for a concentrated animal feeding operation (CAFO) general permit in accordance with the requirements of the CAFO general permit.

(2) If an individual water quality permit application is [~~or an NOI for a CAFO general permit has been~~] submitted before the expiration date of the existing authorization, the terms and conditions of the existing permit continues in effect until final commission action on the permit application. [~~or until the CAFO qualifies for~~] An authorization under the general permit will be renewed in accordance with the requirements in the [~~a CAFO~~] general permit and this subchapter.

(3) A CAFO owner or operator who submits an NOI for a CAFO general permit authorization or is authorized under the CAFO general permit [~~for a new operation or significant CAFO expansion as defined by §321.32(48) of this title (relating to Definitions)~~] shall comply with the public participation process detailed in the CAFO general permit. [~~Expansions which are not considered significant only require the CAFO owner or operator to amend the pollution prevention plan and meet all the technical requirements of this subchapter and the permit or authorization.~~]

(4) The executive director may renew an application for an individual water quality permit for a state-only CAFO without a contested case hearing if the application qualifies for the exception in Texas Water Code, §26.028(d) [~~does not propose any change that constitutes a major amendment as defined in Chapter 305 of this title (relating to Consolidated Permits)~~] or if the operation is not a major source as defined under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification). Renewal under this paragraph is allowed only if there has been no related formal enforcement action against the facility during the last 36 months of the term of the individual water quality permit in which the commission determined that:

(A) a violation occurred that contributed to pollution of surface or groundwater, or an unauthorized discharge occurred, or a violation of §101.4 of this title (relating to Nuisance) occurred, or any violation of an applicable state or federal air quality control requirement occurred;

(B) such discharge or air emission was within the reasonable control of the permittee; and

(C) such discharge or air emission could have been reasonably foreseen by the permittee.

(5) For any application for renewal within an area specified in §321.32(19) [~~§321.32(17)~~] of this title (relating to Definitions), the executive director will conduct an annual compliance inspection within 12 months of the date the executive director declares the application administratively complete.

(c) An operator shall submit a complete application within 90 days of notification from the executive director that an individual water quality permit is required under §321.33(b)(5) of this title (relating to Applicability and Required Authorizations).

(d) Permittees may amend their individual water quality permits in accordance with §305.62 of this title and §321.33(g) [~~§321.33(h)~~] of this title [~~(relating to Applicability and Required Authorizations),~~] and must include all requested changes to the individual water quality permit application. The executive director will process a permit amendment application in accordance with all applicable requirements in Chapter 281 and Chapter 305 of this title.

(e) Any operator of an AFO who files an application for an individual water quality permit under this subchapter, or an amendment in accordance with §321.33(h) of this title, shall submit a complete application to the executive director, according to the provisions of this section including any other information as the executive director or the commission may require.

(f) Applications for an individual water quality permit under this section shall be made on forms prescribed by the executive director. The applicant shall submit an original completed application with attachments to the executive director at the commission headquarters in Austin, and one additional copy of the application with attachments to the appropriate commission regional office. At a minimum, the executive director will require the following information to be submitted, as it is applicable to the facility:

(1) information specified in §305.45 of this title (relating to Contents of Application for Permit);

(2) information specified in 40 Code of Federal Regulations (CFR) §122.21(i)(1), relating to application for a permit for a CAFO;

(3) a recharge feature certification, signed and sealed by a licensed Texas professional engineer, or a licensed Texas professional geoscientist, documenting the absence or presence of any natural or artificial recharge features identified on any tracts of land owned, operated, controlled, rented, or leased by the applicant and to be used as a part of a CAFO or land management unit. The recharge feature certification shall be developed in accordance with this subsection and the executive director's guidance, RG-433 Guidelines for Identifying and Protecting Aquifer Recharge Features. Use of the forms provided in RG-433 is optional.

(A) A [~~certified~~] water quality management plan certified [~~prepared~~] by the Texas State Soil and Water Conservation Board [~~that is developed~~] for a dry litter poultry facility that evaluates site-specific recharge characteristics and management practices of the operation will meet the recharge feature certification requirement of this paragraph.

[~~(A) Documentation by the certifying party shall identify:~~]

~~*(i)* the sources and methods used to identify the presence or absence of recharge features; and~~]

~~*(ii)* the method or approach to be used to identify previously unidentified and undocumented recharge features that may be discovered during the time of construction;~~]

(B) If [~~In preparing~~] the recharge feature certification identifies the presence of recharge features the applicant shall have protective measures developed, signed, and sealed by a licensed Texas professional engineer, or licensed Texas professional geoscientist, as appropriate and in conformance with the Texas Engineering Practice Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The permittee must implement the protective measures. The protective measures must prevent impacts to the aquifer from any recharge features present. The protective measures must include at least one of the following:[~~, the licensed Texas professional engineer or Texas professional geoscientist must conduct an on-site inspection and must review all pertinent records and maps maintained by the following entities or persons to locate any artificial recharge feature:~~]

~~*(i)* Railroad Commission of Texas;~~]

[*(ii)* a Groundwater Conservation District, if applicable;]

[*(iii)* Texas Water Development Board;]

[*(iv)* the commission;]

[*(v)* Natural Resources Conservation Service (NRCS); and]

[*(vi)* previous owner of site, if available.]

[(4) where the applicant documents the presence of recharge features on the tracts for which an application is being filed, the applicant shall submit a plan. The plan must be signed and sealed by a licensed Texas professional engineer or licensed Texas professional geoscientist, as appropriate and in conformance with the Texas Engineering Practices Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The plan must prevent impacts to an aquifer from any recharge features present. The plan must include at least one of the following:]

(i) [(A)] [provisions for the installation of the necessary and appropriate protective] measures to protect [for] each located recharge feature, such as [including] impervious cover, berms, buffer zones, or other equivalent protective measures;[, on the production area and land management units; or]

(ii) [(B)] [except as specified in §321.41 of this title (relating to Special Requirements for Discharges to a Playa), submission of] a detailed groundwater monitoring plan which requires annual [covering all affected facilities and land application areas. At a minimum, the] groundwater sampling [monitoring plan shall specify procedures to annually collect a groundwater sample] from representative wells and the groundwater[, have each sample] analyzed for chlorides, nitrates, and total dissolved solids[, and compare those values with background values for each well]; or

(iii) [(C)] provisions for any other similar method or approach demonstrated by the applicant to be protective of any associated recharge feature and approved by the commission.[; and]

(4) [(5)] any information required by §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)) to document compliance with the air standard permit.

§321.36. Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs).

(a) Applicability. These requirements apply to a concentrated animal feeding operation (CAFO) [general permit, individual water quality permit, or other authorization issued by the commission for a large CAFO, medium CAFO, and small CAFO] subject to the requirements of the Texas Pollutant Discharge Elimination System, unless otherwise noted.

(b) Permits. A CAFO shall comply with §305.125 of this title (relating to Standard Permit Conditions) and all applicable permit conditions contained in commission rules. Requirements to provide for and ensure compliance with standards set by the rules of the commission and the laws of Texas shall be determined and included in an individual water quality permit on a case-by-case basis to reflect the best method for attaining such compliance. Each permit shall contain terms and conditions as the commission determines necessary to protect human health and safety, and the environment.

[(c) Control facility. A CAFO shall ensure that the control facility is designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and direct precipitation from the design rainfall event as described in §321.37 of this title (relating to Effluent Limitations for Discharges from Production Areas).]

(c) [(d)] Nutrient management plan (NMP).

(1) The [On or before July 31, 2007, the] operator of a large CAFO shall develop and implement an NMP certified by a person or entity identified in §321.32(10) of this title (relating to Definitions) to be in accordance with the Texas Natural Resources Conservation Service NRCS [Code 590] Practice Standard Code 590. The plan shall include site-specific nutrient management practices that ensure appropriate agricultural utilization of nutrients in the manure, sludge [litter], or wastewater. The NMP shall be updated annually. The operator shall determine the amount, in tons/acre or acre-inches/acre, of manure, sludge, and wastewater for each land management unit (LMU) using the following methodology:

(A) determine the phosphorus index rating using the Agronomy Technical Note No. 15 Phosphorus Assessment Tool of Texas;

(B) determine the maximum annual application rate using Appendix 5 of the NRCS Practice Standard Code 590 for Texas;

(C) determine the crop requirement or the crop removal rate, as appropriate, from the S Crops Table as contained in the Texas NRCS 590-633 Software Tool, or other sources as approved by the executive director; and

(D) account for:

(i) the results of soil tests required by §321.40(m)(1)(B) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements);

(ii) credits for all nitrogen in the soil that will be available for plant use;

(iii) the amount of nitrogen and phosphorus in the manure and wastewater to be applied;

(iv) consideration of multi-year phosphorus application (for any LMU where nutrients are applied at a rate based on crop phosphorus requirement, the methodology must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement); and

(v) all other additions of plant available nitrogen and phosphorus to the LMU (i.e., from sources other than manure or wastewater or credits for residual nitrogen).

(2) Terms of the NMP include the following:

(A) animal type and authorized head count;

(B) LMU and application acreage for each LMU;

(C) crops (including alternative crops) identified in the NMP with their yield goals for each LMU;

(D) the maximum application rates for nitrogen and phosphorus for each crop in each LMU;

(E) the methodology in paragraph (1) of this subsection (including formulas, sources of data, protocols for making determinations, etc.) and actual data used to calculate application rates; and

(F) any other factors necessary to determine the amounts of nitrogen and phosphorus to be applied.

(3) Changes to a NMP. Any changes, except changes resulting from annual recalculation, must be submitted to the executive

director. The NMP will be reviewed by the executive director to determine if changes require revisions to the terms of the NMP. Revisions to terms of the NMP can be substantial or non-substantial.

(4) Substantial change. The following changes to the terms of the NMP are considered substantial:

(A) changing animal type or authorized head count;

(B) adding LMUs or increasing application acreage; and

(C) using a crop or yield goal to determine maximum application rates for manure, sludge or wastewater that is not authorized by the permit or authorization.

(5) If changes to the terms of the NMP are determined to be substantial, the changes must be incorporated into the permit in accordance with §321.33(g) of this title (relating to Applicability and Required Authorizations).

(6) If changes to the terms of the NMP are determined to be non-substantial, the executive director will notify the permittee and include the revised permit in the permit record.

(7) [~~(2)~~] The CAFO operator shall create, maintain for five years, and make available to the executive director, upon request, a copy of the site-specific NMP records of manure and wastewater application [~~and documentation of the implementation~~].

(d) [~~(3)~~] Compliance with the requirements of this section and applicable requirements [~~for the design and operation of a control facility, as described in §321.38 and §321.39~~] of this subchapter [~~title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs) and Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs))~~] constitute compliance with the provisions of 40 Code of Federal Regulations (CFR) §122.42(e)(1)(i) - (ix).

~~[(e) Manure, litter, and wastewater management.]~~

~~[(1) At least one representative sample of wastewater, if applicable, and one representative sample of manure/litter shall be collected and analyzed each year for total nitrogen, total phosphorus, and total potassium. The results of these analyses shall be used in determining application rates for manure in conjunction with analysis of wastewater.]~~

~~[(2) If manure, litter, or wastewater is sold or given to other persons for off-site land application or disposal, the CAFO operator shall maintain a log of:]~~

~~[(A) the date of removal from the CAFO;]~~

~~[(B) the name and address of the recipient; and]~~

~~[(C) the amount, in wet tons, dry tons, cubic yards, acre-inches, acre-feet, or gallons of manure, litter, or wastewater.]~~

~~[(3) A single pickup truck load need not be recorded.]~~

~~[(4) The operator shall make the most recent nutrient analysis available to any recipient of manure, litter, or wastewater.]~~

(e) [~~(f)~~] Buffers for LMUs [~~land management units (LMUs)~~]. A sinkhole shall be protected with a 100-foot buffer from manure, sludge [~~litter~~], and wastewater application. Alternatively, the CAFO may substitute a 35-foot wide vegetative buffer around a sinkhole where alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot buffer.

(f) [~~(g)~~] Soil sampling and testing procedures for dairy CAFOs, both state-only and Texas Pollutant Discharge Elimination System, located in a major sole-source impairment zone.

(1) Initial sampling. Before commencing land [~~wastewater irrigation or manure/litter~~] application of manure, sludge, or wastewater on an LMU [~~land owned, operated, controlled, rented, or leased by the CAFO operator~~], the operator shall collect and analyze at least one representative soil sample from each of the LMUs according to the following procedures. The CAFO operator is not required to collect soil samples or report on LMUs where manure, litter, or wastewater has not been applied during the preceding year. The CAFO operator must comply with the initial sampling requirement before resuming land application to such LMUs.

(2) Annual sampling. The CAFO operator shall annually collect soil samples for each LMU owned, operated, controlled, rented, or leased by the CAFO operator where manure, litter, or wastewater was applied during the preceding year.

(3) Sampling procedures. Soil sampling procedures [~~The operator~~] shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall be collected using approved procedures described in this section and the agency's publication, RG-408 entitled "Soil Sampling for Concentrated Animal Feeding Operations [~~Nutrient Utilization Plans (RG-408)~~]."

(B) Samples shall be collected by the Texas Commission on Environmental Quality [~~operator~~] or its designee and analyzed by a soil testing laboratory within the same 45-day time frame each year (from 45 days prior to until 45 days after the date of the previous year's sampling date), except when crop rotations or inclement weather require a change in the sampling time frame.

(C) One composite sample shall be obtained for each soil depth zone per uniform soil type (soils with the same characteristics and texture) within each LMU.

(D) Composite samples shall be comprised of 10 - 15 randomly sampled cores obtained from each of the following soil depth zones:

(i) Zone 1: zero to six inches (for an LMU where the manure is incorporated directly into the soil) or zero to two inches (for an LMU where the manure is not incorporated into the soil). Wastewater is considered to be incorporated. If a zero to two-inch sample is required under this subsection, then an additional sample from the two to six-inch soil depth zone shall be obtained in accordance with the provisions of this section; and

(ii) Zone 2: six to 24 inches.

(4) Laboratory analysis. Laboratory [~~The CAFO operator shall have a laboratory~~] analysis of the soil samples shall be performed for physical and chemical parameters to include: nitrate as nitrogen in parts per million (ppm), extractable phosphorus (ppm, using Mehlich III with Inductively Coupled Plasma (ICP)), potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm); soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) - determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH.

~~[(h) Required inspections. The CAFO operator shall perform the routine inspections described in paragraphs (1) and (2) of this subsection to determine preventive maintenance and repair needs. Inspections shall include visual inspections and equipment testing to deter-~~

mine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.]

[(1) CAFO operators shall conduct a daily inspection of all water lines, including drinking water and cooling water lines, located within the drainage area of the retention control structure (RCS).]

[(2) CAFO operators shall conduct a weekly inspection of all control facilities and equipment used during that week for land application of manure, litter, or wastewater. An inspection must include all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to each RCS. The weekly inspection will note the level of liquid in each RCS as indicated by the pond marker required by subsection (k) of this section.]

[(i) Recordkeeping.]

[(1) The CAFO operator shall draft and maintain a report for five years in the pollution prevention plan to document the inspections and to report that appropriate action has been taken in response to deficiencies identified during any inspection required by subsection (h) of this section. A CAFO operator shall correct all the deficiencies within 30 days or shall document the factors preventing immediate correction.]

[(2) The CAFO operator shall maintain records describing mortality management practices implemented in accordance with subsection (l) of this section.]

[(3) The CAFO operator shall maintain documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankments and liners.]

[(4) The CAFO operator shall maintain documentation describing a discharge into water in the state including the date, time, volume of overflow, a copy of the notification(s) provided to the regional office, and sample analysis results associated with an RCS discharge.]

[(5) The CAFO operator shall comply with the land application area recordkeeping requirements identified in 40 CFR §412.37 and §412.47. Compliance with §321.46 of this title (relating to Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting) constitutes compliance with this requirement.]

(g) [(j)] Annual report required. An annual report shall be submitted to the executive director's Office of Compliance and Enforcement, Enforcement Division, by February 15 of each year (for the reporting period of January 1 to December 31 of the previous year) from each CAFO authorized under a CAFO general permit or through an individual water quality permit in accordance with this subchapter. The report shall be submitted on forms prescribed by the executive director and shall include, but is not limited to, the following information:

(1) number and type of animals, whether in open confinement or housed under roof;

(2) estimated total manure, sludge [litter], and wastewater generated during the reporting period;

(3) total manure, sludge [litter], and wastewater land applied during the reporting period;

(4) total manure, sludge [litter], and wastewater transferred to other persons during the reporting period;

(5) total number of acres for land application under the control of the CAFO operator, including both the acres included in the NMP for the CAFO and the total number of acres used during the reporting period for land application;

(6) summary of discharges of manure, sludge [litter], or wastewater from the production area that occurred during the reporting period including dates, times, and approximate volume;

(7) a statement indicating that the NMP under which the CAFO is operating was developed or revised and approved by a certified nutrient management specialist;

(8) a copy of the initial soil analysis for each LMU, regardless of whether manure, sludge [litter], or wastewater has been applied;

(9) soil monitoring reports of all soil samples collected in accordance with the requirements of this subchapter;

(10) groundwater monitoring reports if applicable; [and]

(11) the actual crop(s) planted and yield(s) for each LMU;

(12) the actual nitrogen and phosphorus content of the manure, sludge, and wastewater;

(13) the data used in calculations and the results of calculations conducted in accordance with subsection (c) of this section;

(14) the amount of manure, sludge, and wastewater applied to each LMU during the reporting period;

(15) any supplemental fertilizer applied during the reporting period; and

(16) [(11)] any other information requested by the executive director.

[(k) Pond marker. A permanent pond marker that identifies the level of the design rainfall event shall be installed and maintained in the RCS. In addition, if the operator must maintain a minimum treatment volume in accordance with §321.43(j)(3)(B) of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)), the pond marker must identify this level. The pond marker shall be visible from the top of the levee.]

[(l) Carcass disposal. Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §31.3 and §58.31(b).]

[(m) Closure required. A closure plan must be developed by a CAFO operator when an RCS will no longer be used and when the CAFO ceases or plans to cease operation. For closure of a CAFO, a closure plan must be developed and submitted to the executive director when operation of the CAFO or an individual RCS terminates. The closure plan for the RCS must, at a minimum, be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), as amended, and using the guidelines contained in the Texas Cooperative Extension/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended. A CAFO shall maintain or renew its existing authorization and maintain compliance with the requirements of this subchapter until the facility has been closed.]

§321.37. Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) [Discharges from] Production Areas.

(a) The following requirements will be applied in a permit or authorization issued by the commission, as applicable to concentrated animal feeding operations (CAFOs).

(b) The effluent limitations promulgated by the United States Environmental Protection Agency applicable to duck CAFOs [~~concentrated animal feeding operations (CAFOs)~~], including 40 Code of Federal Regulations (CFR) §§412.20 - 412.26[~~, as amended,~~] are adopted by reference.

(c) There [~~Except as provided by this section, there~~] shall be no discharge of manure, sludge [~~litter~~], or wastewater from a poultry (chickens and turkeys), swine, or veal calf CAFO production area that is subject to the new source performance standards in 40 CFR §412.46.

(1) The operator of a poultry (chickens and turkeys), swine, or veal calf CAFO subject to the new source performance standards in 40 CFR §412.46 shall design, construct, operate, and maintain retention control structures (RCSs) such that no discharge will occur. [~~to contain all wastewater including the runoff and direct precipitation from the 100-year, 24-hour rainfall event for the location of the facility as required by the federal effluent guidelines.~~]

(2) Provisions for upset or bypass, as defined in §321.32 of this title (relating to Definitions) and as provided in 40 CFR §122.41(m) and (n), apply to a new source subject to this provision. To establish the affirmative defense of upset, a permittee shall demonstrate, through properly signed operating logs, or other relevant evidence that:

(A) an upset occurred and that the permittee can identify the cause(s) of the upset; and

(B) the permitted facility was at the time being properly operated in accordance with its permit or authorization and all applicable CAFO rules and regulations.

(d) Except as provided by this subsection, and §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone) [~~section~~], for all other CAFOs, there shall be no discharge of manure, sludge [~~litter~~], or wastewater from a CAFO production area.

(1) The operator of the CAFO shall design, construct, operate, and maintain RCSs to contain all wastewater including the runoff and direct precipitation from the 25-year, 24-hour rainfall event for the location of the facility.

(2) [~~(e)~~] A discharge that is the result of a chronic or catastrophic rainfall event, or the result of catastrophic conditions, from an RCS that has been properly designed, constructed, operated, and maintained is allowed.

(3) [~~(f)~~] Voluntary alternative performance standards may be established in an individual water quality permit for a cattle (other than veal calves) or dairy CAFO, when requested by a permit applicant. These standards may be established as effluent limitations in lieu of the requirements of paragraph (1) of this subsection [~~(d) of this section~~], so long as they are not in conflict with other requirements of this subchapter or other requirements of the commission. Voluntary alternative performance standards shall be consistent with the requirements of 40 CFR §412.31(a)(2).

[~~(g) Voluntary superior environmental performance standards may be established in an individual water quality permit for a swine, poultry (chickens and turkeys), or veal calf CAFO, when requested by a permit applicant. These standards may be established as effluent limitations in lieu of the requirements of subsection (c) of this section, so long as they are not in conflict with other requirements of this subchapter or other requirements of the commission. Voluntary superior environmental performance standards shall be consistent with the requirements of 40 CFR §412.46(d).~~]

§321.38. Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. The purpose of this section is to describe the control facility design requirements that apply to concentrated animal feeding operations (CAFOs). Any CAFO operator that does not use a retention control structure (RCS) is not subject to subsections (e), (f), and (g) of this section. [~~operation (CAFO) general or individual water quality permits or other authorizations under this subchapter.~~]

(b) Well buffers. Except as provided by subsection (c) of this section, the control facility of an animal feeding operation (AFO) shall be separated from a well by ensuring a minimum buffer zone, as described in this subsection. An AFO shall not locate a new RCS [~~retention control structure (RCS)~~] or holding pen within the required well buffer zones:

(1) public drinking water supply wells - 500 feet;

(2) drinking water wells used for private water supply - 150 feet; or

(3) water wells used exclusively for agriculture irrigation - 100 feet.

(c) Buffer variance. A CAFO operating under an existing authorization may continue the operation and use of any existing land management units (LMUs), holding pens and RCSs located within the required well buffer zones provided they are in accordance with the recharge feature evaluation and certification required under §321.34(f)(3) of this title (relating to Permit Applications). For new wells drilled after July 20, 2004, documentation [~~Documentation~~] supporting variances of the buffer zones that were previously authorized shall be kept on site and made available to agency personnel upon request.

(d) 100-year flood plain. All control facilities, including holding pens and RCSs, shall be located outside of the 100-year flood plain unless the facility is protected from inundation and damage that may occur during the 100-year flood event.

(e) RCS design capacity. The following design requirements apply to any [~~AFO, including any~~] CAFO.

(1) The design of a control facility shall include measures that will be used to minimize entry of uncontaminated runoff into RCSs.

(2) Any CAFO [~~AFO~~] constructing a new[~~,~~] or modifying an existing[~~,~~] RCS shall ensure that the design specifications and completed construction specifications are certified by a licensed Texas professional engineer. The failure to obtain the certifications or to maintain records verifying the certifications is a violation of this subchapter.

(3) Except as provided in this subsection, each RCS, at a minimum, shall be designed and constructed in accordance with the technical standards developed by the Natural Resources Conservation Service (NRCS), American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, [~~or~~] American Society of Testing Materials, or other technical standard approved by the executive director that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas professional engineer shall document these variations and their appropriateness to the design.

(4) Any existing RCS that has been properly maintained without any modifications and has no apparent structural problems or leakage is considered to be properly designed with respect [~~and con-~~

~~structed~~] to [~~meet~~] the RCS sizing, embankment design and construction, and liner [~~capacity~~] requirements of this section, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, [~~the ability of~~] the RCS [~~to meet the capacity for the design rainfall event~~] must be certified by a licensed Texas professional engineer as providing protection equivalent to the requirements of this section.

(5) Any RCS documented to have been built in accordance with site-specific NRCS plans and specifications is considered to be in compliance with the design and capacity requirements of this subchapter provided that:

(A) the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, manure, sludge, and wastewater [~~wastes~~] generated, etc.); and

(B) the RCS is operated and maintained in accordance with NRCS requirements.

(6) The production area of a new or expanding AFO shall not be constructed in any stream, river, lake, wetland, or playa, except as provided in §321.41 of this title (relating to Special Requirements for Discharges to a Playa).

(7) The design plan must include documentation of the sources of information, assumptions, and calculations used in determining the appropriate volume capacity of the RCSs [~~retention control structures (RCSs)~~]. Poultry (chickens and turkeys), swine, or veal calf CAFOs subject to the new source performance standards in subparagraph (B) of this paragraph shall be designed in accordance with subparagraphs (B) and (C) of this paragraph or subparagraphs (B) and (D) of this paragraph. For all other CAFOs, the [~~The~~] volume must include design rainfall event runoff and normal operating capacity requirements in accordance with subparagraphs (A) and (C) [~~(B)~~] of this paragraph or design rainfall event runoff and evaporation systems in accordance with subparagraphs (A) and (D) [~~(C)~~] of this paragraph.

(A) Design rainfall event runoff. All CAFOs, other than poultry (chickens and turkeys), swine, or veal calf CAFOs subject to the new source performance standards in subparagraph (B) of this paragraph, shall have an RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event, except as required by §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone) or authorized under §321.37(d)(3) of this title (relating to Effluent Limitations for Concentrated Animal Feeding Operation (CAFO) Production Areas).

~~*f(i)* New source swine, veal, or poultry (chickens and turkeys) CAFOs. Any swine, veal, or poultry (chickens and turkeys) CAFO subject to the new source performance standards in 40 Code of Federal Regulations §412.46 shall have an RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 100-year, 24-hour rainfall event.~~]

~~*f(ii)* All other AFOs. All other AFOs shall have an RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event, except as required by §321.42(c) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone).~~]

(B) New source swine, veal, or poultry (chickens and turkeys) CAFOs. Any swine, veal, or poultry (chickens and turkeys) CAFO subject to the new source performance standards in 40 Code of Federal Regulations (CFR) §412.46 shall have an RCS designed and constructed such that no discharge will occur in accordance with the following:

(i) Information used in the design of the RCS shall include, but is not limited to, the following: design rainfall event, additional minimum capacity for chronic rainfalls identified in the evaluation required by clause (ii) of this subparagraph, the requirements of subparagraph (C) or (D) of this paragraph, additional storage capacity for wastewater intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the RCS.

(ii) An evaluation of the adequacy of the designed RCS using the most recent version of the Soil Plant Air Water (SPAW) Hydrology Tool, or other tool approved by the executive director. 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 LMUs, planned crop rotations consistent with the nutrient management plan, and the final modeled result of no discharges from the designed RCS. For those CAFOs where 100 years of local weather data is not available, a simulation with a confidence interval analysis conducted over a period of 100 years may be used.

(C) [~~(B)~~] Design capacity requirements for systems using irrigation.

(i) The RCS shall be designed for the authorized number of animals to include any storage volume required by a hydrologic needs analysis (water balance) that documents that the typical irrigation demands of the proposed crop and irrigated land area will not be exceeded.

(ii) Precipitation inputs to the water balance shall be the average monthly precipitation reported in a National Weather Service current publication.

(iii) The consumptive use requirements of the cropping system shall be developed on a monthly basis, and shall be calculated as a part of the water balance.

(iv) The maximum required storage value calculated by the water balance shall not encroach on the storage volume required for the design rainfall event [~~under subparagraph (A) of this paragraph~~].

(v) Wastewater application rates used in the water balance shall not induce uncontrolled runoff or create tailwater that causes a discharge.

(vi) All [~~waste and~~] process-generated wastewater produced during a 21-day or greater period.

(vii) Any other relevant volume needed in the water balance, including any required under the air standard permit in §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)).

(D) [~~(C)~~] Design requirements for evaporation systems. Evaporation systems shall be designed:

(i) to withstand a ten-year (consecutive) period of maximum recorded monthly rainfall (other than catastrophic). In any month in which a catastrophic rainfall event occurs, the water balance shall replace such an event with not less than the long-term average rainfall for that month as determined by a water balance; and

(ii) to maintain sufficient volume to contain rainfall and rainfall runoff from the design rainfall event [~~as required by subparagraph (A) of this paragraph~~] without overflow. The depth for this volume must be at least one vertical foot allocated within the RCS above the volume required in clause (i) of this subparagraph.

(f) Dewatering system. An irrigation system or other liquid removal system used by an AFO must be designed to ensure that the system is capable of dewatering the RCSs on a regular schedule. RCSs shall be equipped with irrigation or wastewater removal systems capable of dewatering the RCSs whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(g) RCS embankment and liner design. [~~A permit or authorization shall identify required design specifications for all RCS.~~]

(1) For RCSs where the depth of water impounded against the embankment at the spillway elevation is three feet or more, the RCS is considered to be designed with an embankment. The pollution prevention plan shall include a description of the design specifications for the RCS embankments. The following design specifications are required for all new construction or the modified portions [~~and for all structural modifications~~] of existing RCSs [~~must describe standards for the quality of soils used, lift thickness and density at optimum moisture content, procedures and minimum requirements for liner and embankment compaction testing, and spillway construction~~].

(A) Soils used in the embankment shall be free of foreign material such as rocks larger than four inches, trash, brush, and fallen trees.

(B) The embankment shall be constructed in lifts or layers no more than eight inches compacted to six inches thick at a minimum compaction effort of 95% Standard Proctor Density (ASTM D698) at -1% to +3% optimum moisture content.

(C) All embankment walls shall be stabilized to prevent erosion or deterioration.

(D) Embankment construction must be accompanied by certified compaction tests including in-place density and moisture in accordance with ASTM D1556, D2167, or D2937 for density and D2216, D4634, D4944, or D4959 for moisture, and D2922-91 or D6938-07 for moisture and density, or equivalent testing standards.

(E) Additional protection for new or modified portions of existing RCSs that are constructed with embankments designed to contain runoff from a drainage area shall be constructed with a spillway or other outflow device properly sized according to NRCS design and specifications to protect the integrity of the embankment.

(F) For all new construction or the modified portions of existing RCSs, each RCS must have a minimum of two vertical feet of freeboard constructed with materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet of freeboard between the top of the embankment and the required storage capacity.

(2) For all new construction and for all structural modifications of existing RCSs, each RCS must meet the requirements for lack of hydrologic connection or have a liner consistent with subparagraph (B), (C), or (D) of this paragraph. [~~have a minimum of two vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity, including any additional storage required by an alternative standard.~~]

[~~(3) The operator shall ensure site-specific documentation is prepared that shows that no significant hydrologic connection exists between the contained wastewater and water in the state. Where the operator cannot document that no significant hydrologic connection exists, RCSs must have a liner consistent with the requirements of this subsection.~~]

(A) This subparagraph applies to lack of hydrologic connection requirements. Documentation must show that there will be no significant leakage from the RCS; or that any leakage from the RCS will not migrate to water in the state. A permit or authorization will require documentation of the lack of hydrologic connection certified by a licensed Texas professional engineer or licensed Texas professional geoscientist and must include information on the hydraulic conductivity [~~tested at the optimum moisture content~~] and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.

[~~(B)~~] If it is claimed that no significant leakage would result from the use of *in-situ* materials, documentation must be provided that leakage will not migrate to waters in the state. The operator must at a minimum include maps showing groundwater flow paths, or that the leakage enters a confined environment. A permit or authorization will require a written determination by an NRCS engineer, [~~or~~] a licensed Texas professional engineer or a licensed Texas professional geoscientist that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and waters in the state. [~~This information will be considered documentation that no significant hydrologic connection exists.~~]

(B) This subparagraph applies to RCS liners using *in-situ* material. *In-situ* material is undisturbed, in-place, native soil material. *In-situ* materials must at least meet the minimum criteria for hydraulic conductivity, thickness, and calculated specific discharge, as described in subparagraph (C) of this paragraph. Samples shall be collected and analyzed in accordance with subparagraph (E) of this paragraph. This documentation must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist.

(C) This subparagraph applies to constructed or installed earthen liners. Constructed or installed liners must be designed by a licensed Texas professional engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. Compaction tests and post construction sampling and analyses will provide support for the liner certification. Liners shall be designed and constructed [~~Site-specific conditions may be considered in the design and construction of liners. Where no site-specific assessment has been performed demonstrating that there will be no significant leakage from the RCS or that any leakage from the RCS will not migrate to water in the state, a liner must be designed by a licensed Texas professional engineer and documented~~] to have hydraulic conductivities no greater than 1×10^{-7} centimeters per second (cm/sec), with a thickness of 1.5 feet or greater or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 x 10-6 cm/sec calculated using Darcy's Law with the water level at the spillway depth. Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements identified in the permit or authorization. [~~The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer.~~] The operator shall maintain the liner to minimize the percolation of wastewater through the liner.

(D) This subparagraph applies to geosynthetic liners. Geosynthetic liners that meet the specific discharge requirements in subparagraph (C) of this paragraph are acceptable if certified by a licensed Texas professional engineer. Documentation must be presented to the executive director for review and approval before putting into service. Installation of the liner shall be certified by a licensed professional engineer that the liner and subgrade were completed according to the manufacturer's recommendations and current standards. Seams

shall be completed in accordance with the manufacturer's requirement. When wedge weld seams are used, non-destructive seam testing shall be conducted on the complete length of the wedge weld by standard air pressure testing. The certification must document compliance with all of the following standards: ASTM D5888 Storage and Handling of Geosynthetic Clay Liners, ASTM D5889 Quality Control of Geosynthetic Clay Liners, and ASTM D6102 Guide for Installation of Geosynthetic Clay Liners.

(E) This subparagraph applies to liner sampling and analyses of *in-situ* material and earthen liners.

(i) The licensed Texas professional engineer or licensed Texas professional geoscientist shall use best professional practices to ensure that corings or other liner samples will be appropriately plugged with material that also meets liner requirements of this subsection.

(ii) Samples shall be collected in accordance with ASTM D1587 or other method approved by the executive director. For each RCS, a minimum of two core samples collected from the bottom of the RCS and a minimum of at least one core sample from each sidewall. Additional samples may be necessary based on the best professional judgment of the licensed professional engineer. Distribution of the samples shall be representative of liner characteristics, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.

(iii) For earthen liners, undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D5084, whole pond seepage analysis as described in ASABE Paper Number 034130, Double Ring Infiltrometer (stand pipe), or other method approved by the executive director.

(F) [~~(D)~~] A permit or authorization shall include provisions whereby the executive director may, upon written notice, require the operator to install a leak detection system or monitoring well(s), based upon a determination that significant potential exists for the contamination of water in the state or drinking water.

(G) [~~(E)~~] Documentation of lack of hydrologic connection, liner, and capacity certifications by a licensed Texas professional engineer or licensed Texas professional geoscientist must be completed for each RCS and kept on site.

(h) Manure storage. The AFO operator shall provide manure storage capacity based upon manure and waste production, land availability, and the NRCS Field Office Technical Guide or equivalent standards. When manure is stockpiled, it shall be stored in a well-drained area with no ponding of water, and the top and sides of stockpiles shall be adequately sloped to ensure proper drainage. Runoff from manure storage piles must be retained on site. If the manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the manure areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

§321.39. [~~Control Facility~~] Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. The purpose of this section is to describe the [~~control facility~~] operational requirements that apply to concentrated animal feeding operations (CAFOs). Any CAFO operator that does not use a retention control structure (RCS) is not subject to subsections (b) and (c) of this section. [~~operation (CAFO) general or individual water quality permits or other authorizations allowed by this subchapter.~~]

(b) RCS [~~Retention control structure (RCS)~~] operation and maintenance. A CAFO using an RCS for storage and treatment of stormwater [~~storm water~~], sludge, or process-generated wastewater, including liquid manure handling systems, shall ensure that the required capacity in the RCS is available to contain rainfall and rainfall runoff from the design [~~required~~] rainfall event.

(1) The operator shall restore such capacity after each rainfall event or accumulation of manure, sludge, or process-generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases so that irrigation will not cause runoff.

(2) The normal operating wastewater level in the RCS shall be maintained in accordance with [~~within~~] the design of the RCS. If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event [~~(25-year or 100-year)~~], the operator must document the conditions that resulted in this occurrence. As soon as irrigation is allowed [~~not prohibited~~], the CAFO operator shall irrigate until the water level is at or below the design rainfall level.

(3) If an RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, [~~then~~] the CAFO operator shall take reasonable steps to irrigate wastewater to land management units (LMUs) only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from an LMU, the CAFO operator shall collect samples from the drainage pathway at the point of discharge from the LMU, analyze [~~edge of~~] the samples [~~LMU where the discharge occurs~~] for the parameters identified in §321.44(b)(1) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Notification Requirements), and provide the appropriate notifications in accordance with §321.44(a) of this title. The operator shall orally notify the appropriate regional office within 24 hours of beginning irrigation under this provision and in writing within 14 working days.

(4) A rain gauge capable of measuring the design [~~required~~] rainfall event shall be installed and properly maintained.

(5) The CAFO operator shall maintain the liner to inhibit infiltration of wastewater. The CAFO operator shall ensure liners and embankments are protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner or embankment shall be evaluated by a licensed Texas professional engineer within 30 days following discovery of the damage. For re-certification of an earthen liner following mechanical or structural damage, a minimum of one sample shall be collected and analyzed to document that the liner meets the requirements of the liner certification for that RCS prior to the damage.

(6) The CAFO operator shall install and maintain a permanent pond marker in the RCS, visible from the top of the embankment that identifies, either physically or by documentation in the pollution prevention plan, the volume required for the design rainfall event and minimum treatment volume, in accordance with §321.43(j)(3)(B) of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)).

(c) Sludge. The CAFO operator shall monitor sludge accumulation and depth in an RCS, as necessary, based upon the design sludge storage volume in the RCS.

(1) Sludge shall be removed from the RCSs in accordance with the design schedule for cleanout to prevent the accumulation of sludge from encroaching on the volumes reserved for minimum treat-

ment, if necessary, and the design rainfall event. [~~exceeding the designed sludge volume of the structure.~~]

(2) The operator shall provide written notice to the appropriate regional office of the commission as soon as the RCS cleaning is scheduled, but not less than ten business days prior to [~~before~~] cleaning. The operator shall also provide written verification of completion to the same regional office within five business days after the cleaning is complete [~~has been completed~~]. This paragraph does not apply to cleaning of solid separators or settling basins. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Any increase in odors associated with a properly managed cleanout under this subsection will be taken into consideration by the executive director when determining compliance with the provisions of this subchapter.

(d) Spill prevention and recovery. The CAFO operator shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur, materials [~~material~~], handling procedures, and storage shall be specified. The CAFO operator shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a cleanup. The CAFO operator shall store, use, and dispose of all [~~herbicides and~~] pesticides in accordance with label instructions. There shall be no disposal of [~~herbicides,~~] pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering an RCS as a result of stormwater [~~storm water~~] transport of properly applied chemicals is not a violation of this section.

(e) Storage of manure and sludge [~~waste~~]. A permit or authorization will establish requirements for the temporary storage of manure, [~~litter,~~] or sludge not to exceed 30 days, and requirements for permanent storage for more than 30 days. Temporary storage of manure and sludge in the 100-year flood plain, near water courses, or near recharge features is prohibited, unless protected from inundation and damage that may occur during the 100-year runoff event. Contaminated runoff from manure storage piles must be retained on site. If the manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the manure areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

(f) Composting. Composting on site at a CAFO shall be performed in accordance with Chapter 332 of this title (relating to Composting). CAFOs may compost [~~waste generated on site, including~~] manure, sludge, [~~litter, bedding, feed,~~] and dead animals generated on site. In accordance with Chapter 332 of this title, a CAFO operator may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of the RCS and must be shown on the site plan and accounted for in the RCS design calculations [~~of the RCS~~].

(g) Maintenance of animals.

(1) Animals confined at the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.

(2) A CAFO that maintains animals in pastures must maintain crops, vegetation, forage growth, or post-harvest [~~postharvest~~] residues in the normal growing season, excluding the feed and water trough areas [~~and open lots designated on the site map~~].

(3) Carcass disposal. Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste), unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §§31.3, 58.31(b), and 59.12 (relating to Disposal, Disposal of Diseased or Exposed Livestock, and Carcass Disposal Requirements, respectively). Carcass disposal shall be addressed in the potential pollutant sources section of the pollution prevention plan with management practices to prevent contamination of surface or groundwater, control access, and minimize odors.

(h) Closure required.

(1) The operator shall submit a closure plan to the executive director and the appropriate regional office within 90 days of permanently ceasing operations.

(2) The closure plan must be developed and certified by a licensed Texas professional engineer to meet the standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), and using the guidelines contained in the Texas AgriLife Extension Service/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures).

(3) The RCS or CAFO shall be properly closed within one year of Texas Commission on Environmental Quality receipt of the closure plan or an alternate schedule approved by the executive director. The RCS or CAFO is considered properly closed upon certification by a licensed Texas professional engineer that closure is complete according to the closure plan.

(4) The operator shall maintain or renew its existing authorization and maintain compliance with the requirements of this subchapter until the facility is properly closed.

§321.40. Concentrated Animal Feeding Operation (CAFO) Land Application Requirements.

(a) The purpose of this section is to describe the land application requirements that apply to concentrated animal feeding operations (CAFOs). [~~operation (CAFO) general or individual water quality permits or other authorizations allowed by this subchapter.~~]

(b) The land application of manure, sludge [~~litter~~], or wastewater at agronomic rates and hydrologic needs shall not be considered surface disposal and is not prohibited.

(c) Manure, sludge [~~litter~~], or wastewater may be applied to the areas in the 100-year flood plain at agronomic rates not to exceed the hydrologic needs of the crop.

(d) Discharge of manure, sludge [~~litter~~], or wastewater from a [~~the~~] land management unit (LMU) is prohibited and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.

(e) Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent tailwater discharges to waters in the state, and prevent the occurrence of nuisance conditions.

(f) Land application shall not occur when the ground is frozen or saturated or during rainfall events unless in accordance with §321.39(b)(3) of this title (relating to [~~Control Facility~~] Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)) or as approved by the commission.

(g) The CAFO operator shall not locate a new LMU within the required well buffer zones identified in §321.38(b) of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)), unless additional wellhead protective measures are implemented that will prevent pollutants from entering the well and contaminating groundwater. An exception to the full well buffer zone for a private drinking water well or a water well used exclusively for agricultural irrigation may be approved by the executive director if a licensed Texas professional engineer or licensed Texas professional geoscientist provides accurate documentation showing that additional wellhead protective measures will be or have been implemented that will prevent pollutants from entering the well and contaminating groundwater. Additional protective measures may include a sanitary seal, annular seal, a steel sleeve, or surface slab.

(h) Vegetative buffer strips shall be maintained in accordance with Natural Resources Conservation Service (NRCS) Practice Standard Code 393. The minimum buffer shall be no less than 100 feet of vegetation to be maintained between manure, sludge [~~litter~~], or wastewater application areas and water in the state. A buffer is not required for wastewater irrigation when applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited. [~~The CAFO operator shall maintain the buffer strips in accordance with Natural Resources Conservation Service (NRCS) guidelines.~~]

(i) CAFOs introducing wastewater or chemicals to water wellheads for the purpose of irrigation shall install backflow prevention devices in accordance with requirements contained in 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers) and Chapter 290 of this title (relating to Public Drinking Water), as appropriate.

(j) Nighttime application of manure, sludge [~~litter~~], or wastewater by a CAFO shall be allowed only in areas with no occupied residence(s) within 1/4 mile from the outer boundary of the actual area [~~LMU~~] receiving manure, sludge [~~litter~~], or wastewater application. In areas with an occupied residence within 1/4 mile from the outer boundary of the actual area [~~LMU~~] receiving manure, sludge [~~litter~~], or wastewater application, application shall only be allowed from one hour after sunrise until one hour before sunset, unless the current resident owner or lessee [~~occupants~~] of such residences have agreed[~~,~~] in writing[~~, agreed~~] to specified [~~such~~] nighttime applications.

[~~(k) Any CAFO operator who owns, operates, controls, rents, or leases land where manure, litter, or wastewater from the CAFO is land applied must be in compliance with the deadline and requirements specified in §321.36(d) of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)). Before this deadline, the operator of any existing CAFO must manage nutrients on LMUs according to all other applicable requirements of this subchapter.~~]

(k) [~~(1)~~] Nutrient requirement.

(1) Any land application of manure, sludge [~~litter~~], and wastewater shall not exceed the [~~nutrients necessary to meet the~~] planned crop requirements. Land application rates of manure, sludge, or [~~litter, and~~] wastewater shall be based on the total nutrient concentration, on a dry weight basis, where applicable.

(2) Critical phosphorus level. Land application of manure, sludge, or wastewater [~~A permit or other authorization~~] shall not exceed the crop removal rate when results of the annual soil analysis for extractable [~~establish the appropriate threshold for~~] phosphorus indicate: [~~in the soil and the requirements to develop the nutrient utilization plan (NUP). If an operator is required to develop a NUP, the operator shall cease land application of manure, litter or wastewater to the affected area and may resume only after a detailed NUP has been implemented.~~]

(A) a level greater than 200 parts per million (ppm) for a particular LMU; or

(B) a level greater than 350 ppm for an LMU where the average annual rainfall is 25 inches or less and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less and the closest edge of the field is more than one mile from a named stream; or

(C) if ordered by the executive director to do so in order to protect water in the state.

(3) Dairy CAFOs located in a major sole-source impairment zone shall develop a nutrient utilization plan (NUP) when the annual soil analysis for extractable phosphorus in zone 1 (0 - 6-inch incorporated; 0 - 2 or 2 - 6-inch if not incorporated) depth in an LMU is greater than 200 ppm. State-only CAFOs shall develop a NUP when the annual soil analysis for an LMU indicates the critical phosphorus levels in paragraph (2) of this subsection have been exceeded. A nutrient management plan, based on crop removal certified as meeting the NRCS Practice Standard Code 590 is equivalent to the requirements for a NUP.

(A) If an operator is required to develop a NUP, the operator shall cease land application of manure, sludge, or wastewater to the affected area and may resume only after a NUP is implemented.

(B) [~~(3)~~] [~~NUP. An NMP (Practice Standard 590) certified as meeting the NRCS standard is equivalent to the requirements for a NUP.~~] The NUP[~~, based on crop removal,~~] must be developed and certified by:

(i) an employee of the NRCS;[~~,~~]

(ii) a nutrient management specialist certified by the NRCS;[~~,~~]

(iii) the Texas State Soil and Water Conservation Board;[~~,~~]

(iv) Texas AgriLife [~~Cooperative~~] Extension Service;[~~,~~]

(v) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas;[~~,~~]

(vi) a [~~or a professional agronomist or soil scientist certified by the~~] Certified Professional Agronomist certified through the certification program of the American Society of Agronomy;[~~,~~]

(vii) a Certified Professional Soil Scientist certified through the certification program of the Soil Science Society of America;[~~,~~] or

(viii) a licensed geoscientist-soil scientist in Texas after approval by the executive director based on a determination by the executive director that another person or entity identified in this subparagraph [~~paragraph~~] cannot develop the plan in a timely manner.

(C) After a NUP is implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level. Thereafter, the operator of a dairy CAFO located in a major sole-source impairment zone shall implement the requirements of the nutrient management plan certified in accordance with §321.36(c) [~~§321.36(d)~~] of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)) and the operator of other state-only[~~. All other~~] CAFOs must follow the requirements in this section.

(D) [~~(4)~~] Land [~~For a CAFO, land~~] application under the terms of the NUP may begin 30 days after the plan is filed with the executive director, unless before that time the executive director has returned the plan for failure to comply with all the requirements of this subsection.

(l) Runoff from an LMU. Where manure, sludge, or wastewater is applied in accordance with a site-specific nutrient management plan that complies with §321.36(c) of this title or when the land application conforms to this section, precipitation-related runoff from LMUs is authorized as:

(1) a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or

(2) an agricultural stormwater discharge for all other sources.

(m) Sampling and Testing.

(1) Initial sampling. Before commencing land application of manure, sludge, or wastewater on LMUs and before resuming land application on LMUs where manure, sludge, or wastewater was not applied during the preceding year, the operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(2) Annual Sampling. The operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(3) The operator shall make the most recent nutrient analysis available to any recipient of manure, sludge, or wastewater.

(4) Sampling procedures. The operator shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall be collected using approved methods described in the agency's guidance RG-408 entitled "Soil Sampling for Concentrated Animal Feeding Operations."

(B) Samples shall be collected by the operator or its designee and analyzed by a soil testing laboratory annually, except when crop rotations or inclement weather require a change in the sampling time. The pollution prevention plan shall contain documentation to explain the reasons for adjusting the sampling timeframe.

(C) Obtain one composite sample for each LMU and per uniform soil type (soils with the same characteristics and texture) within the LMU.

(D) Composite samples shall be comprised of 10 - 15 randomly sampled cores at a depth of zero to six inches.

(5) Laboratory analysis. The operator shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include: nitrate reported as nitrogen in ppm; phosphorus (extractable, ppm, using Mehlich III extractant with Inductively Coupled Plasma (ICP) analysis); potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm); soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH (soil:water, 1:2 ratio).

§321.44. Concentrated Animal Feeding Operation (CAFO) Notification Requirements.

(a) Discharge notification. If for any reason there is a discharge to water in the state, the concentrated animal feeding operation (CAFO) operator shall notify the appropriate regional office orally within 24 hours of becoming aware of the discharge or by the next business day and in writing [~~upon discovery of the discharge, whichever occurs first. The CAFO operator shall also submit written notice,~~] within 14 business [~~working~~] days of the discharge from the retention control structure or any component of the manure [~~waste~~] handling or land application system to the Office of Compliance and Enforcement, Enforcement Division. In addition, the operator shall document the following information, keep the information on site, and submit the information to the appropriate regional office within 14 business [~~working~~] days of becoming aware of such discharge. The notification must include:

(1) a description and cause of the discharge, including a description of the flow path to the receiving water body;

(2) an estimation of the volume discharged;

(3) the period of discharge, including exact dates and times, and, if not corrected, the anticipated time the discharge is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the discharge;

(4) if caused by a precipitation event(s), the date(s) of the event(s) and the rainfall amount(s) recorded from the on-site rain gauge; [~~and~~]

(5) results of analysis as required by subsection (b) of this section; and[~~.~~]

(6) any upset which exceeds any effluent limitation in the permit or authorization.

(b) Discharge monitoring. A permit or authorization will establish requirements for sample collection and analysis, sample type and frequency, and the parameters to be monitored.

(1) The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference accredited lab for [~~Sample analysis of the discharge must, at a minimum, include~~] the following parameters:

(A) *Escherichia coli* [~~fecal coliform bacteria~~];

[~~(B) total coliform;~~]

(B) [~~(C)~~] five-day biochemical oxygen demand (BOD_5);

(C) [~~(D)~~] total suspended solids (TSS);

(D) [~~(E)~~] Ammonia Nitrogen (as N);

(E) [~~(F)~~] Nitrate (as N);

(F) [~~(G)~~] total dissolved solids (TDS);

(G) [~~(H)~~] total phosphorus (as P); and

(H) [~~(I)~~] any pesticide which the operator has reason to believe could be in the discharge.

(2) If the operator is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes [~~hurricane~~], tornadoes, electrical storms, etc.), the operator shall document why discharge samples could not be collected. Once dangerous conditions have passed, the operator shall conduct the required sampling and analyses.

(3) In the event that a discharge occurs outside of the normal business hours of the testing laboratory, which causes the maximum hold time to lapse, the operator shall collect a secondary sample from the retention control structure, and have it analyzed on the first business day for each parameter where the maximum hold time is exceeded.

(c) Construction notification. After all initial construction activity has been completed, and before beginning operations, an operator of a new CAFO must notify the appropriate regional office orally that the facility is commencing operations.

§321.46. Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting.

(a) Pollution prevention plan (PPP).

(1) A permit or authorization will establish requirements for the development of a PPP. PPPs shall be prepared in accordance with good engineering practices and shall include measures necessary to limit the discharge of pollutants to or adjacent to water in the state. The plan shall describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of this subchapter. The plan shall identify a specific individual(s) at the facility who is responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's PPP.

(2) The plan shall be signed by the operator or other signatory authority in accordance with §305.44 of this title (relating to Signatories to Applications), and the plan shall be retained on site.

(3) Upon completion of a PPP review, the executive director may notify the operator of a concentrated animal feeding operation (CAFO) at any time that the plan does not meet one or more of the minimum requirements of this subchapter. After such notification from the executive director, the operator shall make changes to the plan within 90 days after such notification, unless otherwise provided by the executive director.

(4) The operator of the CAFO shall revise the plan:

(A) before any change in the acreage [~~number~~] or boundaries [~~configuration~~] of land management units (LMUs);

(B) before any increase in the maximum number of animals;

(C) before operation of any new control facilities;

(D) before any change which [~~that~~] has a significant effect on the potential for the discharge of pollutants to water in the state;

(E) if the PPP is not effective in achieving the general objectives of controlling discharges of pollutants from the production area [~~CAFO~~] or LMU(s); or

(F) within 90 days following written notification from the executive director that the plan does not meet one or more of the minimum requirements of this section.

(5) Where design, planning, construction, operation and maintenance, or other documentation equivalent to PPP requirements are contained in site specific-plans prepared and certified by the Natural Resources Conservation Service (NRCS), Texas State Soil and Water Conservation Board, or their designee, that information may be used [~~information in the plans are sufficient~~] to document best management practices (BMPs) or applicable portions of the technical requirements in this subchapter. Where provisions in the certified plan are substituted for applicable BMPs or portions of the PPP, the PPP must refer to the appropriate section of the certified plan. If the PPP contains a reference to a certified plan, a copy of the certified plan must be kept with [~~in~~] the PPP.

(6) [~~The PPP shall provide a description of potential pollutant sources.~~] Potential pollutant sources include any activity or material of sufficient quantity that may reasonably be expected to add [~~contain~~] pollutants to surface water in [~~at~~] the state from the facility. The owner shall conduct a thorough site inspection of the facility to identify all potential pollutant sources. The inspection shall include all land that is part of the production area[~~, including the CAFO, the associated control facilities,~~] and LMUs. An evaluation of [~~potential~~] pollutant sources shall identify the types of potential pollutant sources, provide a description of the [~~potential~~] pollutant sources, and indicate all measures that will be used to prevent contamination from the [~~potential~~] pollutant sources.

(7) The operator shall maintain and update the following items as part of the PPP [~~A permit or authorization will establish requirements for the development and retention by the operator of~~]:

(A) a site map, showing the production area and include, at a minimum, pens and open lots, barns, berms, permanent manure storage areas, composting areas, control facilities including retention control structures (RCSs), water wells (abandoned and in use), surface water in the state, and dead animal burial sites; including a depiction of buffer zones and setbacks;

(B) LMU Map, showing the boundary and acreage of each LMU; all buffer zones, the location of the production area, water wells (abandoned and in use) that are onsite or within 500 feet of the facility boundary, all surface water in the state located onsite and within one mile of the facility boundary, and the facility boundary.

(C) [~~(B)~~] soil, crop, and crop nutrient information;

(D) [~~(C)~~] a description of land application procedures and equipment used; and

(E) [~~(D)~~] a description of BMPs utilized to minimize the entry of uncontaminated runoff into the control facility and RCS [~~retention control structure (RCS)~~].

(b) Management documentation. A permit or authorization will establish additional requirements for recordkeeping and documentation. At a minimum, these records must include:

(1) a copy of the administratively complete and technically complete individual water quality permit application, notice of intent seeking authorization under a CAFO general permit, and the written authorization issued by the commission or executive director, for any facility required to obtain written authorization;

(2) the RCS management plan, if applicable;

(3) procedures for spill prevention and recovery;

(4) a copy of the [~~approved~~] recharge feature certification, if applicable;

(5) the groundwater monitoring plan associated with the use of a playa;

(6) a copy of the comprehensive nutrient management plan, nutrient management plan or nutrient utilization plan, if required;

(7) site-specific documentation that no significant hydrologic connection exists between the contained wastewater and water in the state;

(8) any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge [~~litter~~], or wastewater;

(9) the odor control plan requirements established in §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs)); and

(10) documentation of employee training, including dates when training occurred and, for dairy outreach program area (DOPA)-required training, verification of the date, time of attendance, and completion of training.

(c) Required inspections. The CAFO operator shall perform the routine inspections described in this subsection to determine preventive maintenance and repair needs. Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition [~~Site evaluation~~].

(1) CAFO operators shall conduct a daily inspection of all water lines, including drinking water and cooling water lines that are located within the drainage area of the RCSs. These daily inspections shall be recorded in the PPP either daily or in the weekly report.

(2) CAFO operators shall conduct a weekly inspection of all control facilities and equipment used during that week for land application of manure, sludge, or wastewater. An inspection must include all stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to each RCS. The weekly inspection will note the level of liquid in each RCS as indicated by the pond marker.

(3) CAFO operators shall conduct monthly inspections on mortality management systems, including containers, burial sites, composting facilities, incinerators, and chemical storage and disposal areas.

(4) A complete site inspection of the CAFO and LMUs shall be conducted and documentation of the findings of the inspection made at least once per year. The inspection shall include:

(A) a review of the list of potential pollutant sources to ensure it is current;

(B) the inspection of all controls and operations outlined in the PPP to reduce the potential for pollutants to be transported off the CAFO; and

(C) updating the PPP to reflect the current conditions.

(5) [~~(1)~~] Once every five years, beginning five years after initial authorization under this subchapter, any CAFO operator who uses an RCS shall have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, and review existing liner documentation. The engineer shall[~~,~~ ~~and~~] complete and certify a report of their findings that must be kept with the PPP.

[~~(2) A complete inspection of the facility, including the CAFO, the associated control facilities, and LMUs shall be completed by the CAFO operator and a report documenting the findings of the inspection made at least once per year. The inspection shall verify that:~~]

[~~(A) the description of potential pollutant sources is accurate;~~]

[~~(B) the site plan/map has been updated or otherwise modified to reflect current conditions;~~]

[~~(C) the controls outlined in the PPP to reduce pollutants and avoid nuisance conditions are being implemented and are adequate; and~~]

[~~(D) records documenting significant observations made during the site inspection.~~]

(d) Recordkeeping requirements. The CAFO operator shall keep records in the PPP [~~on site~~] for a minimum of five years from the date the record was created. Upon [~~and shall submit them within five days of a~~] written request, any of the records maintained to comply with the permit shall be submitted to [~~by~~] the executive director within five business days of the operator receiving the request. The records shall document the inspections and actions taken in response to deficiencies identified during any inspection. A CAFO operator shall correct all the deficiencies within 30 days or shall document the factors preventing immediate correction and submit to the executive director an explanation of the factors that prevented the correction of the deficiencies. Any CAFO operator that does not use an RCS is not subject to paragraphs (3) - (6) [~~(5)~~] and (8) [~~(7)~~] of this subsection. The following records must be included unless otherwise specified:

(1) a list of any significant spills of potential pollutants at the CAFO that have a significant potential to reach water in the state;

(2) a log of wastewater, manure, [~~litter,~~] and sludge removed from the CAFO, other than single pickup truck loads, that shows the dates and[~~,~~] times of removal from the CAFO, name and address of the[~~, and~~] recipient, amount (in wet tons, dry tons, cubic yards, acre-inches, acre-feet, or gallons) of manure, sludge, or wastewater;

(3) a log of all daily measurable rainfall events, including the measured rainfall;

(4) a log of all weekly wastewater levels observed in the RCS, or daily wastewater levels in a major sole-source impairment zone;

(5) documentation of liner maintenance by an NRCS engineer, licensed Texas professional engineer, or qualified groundwater scientist;

(6) documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankments and liners;

(7) [~~(6)~~] groundwater monitoring records, if required by §321.41 of this title (relating to Special Requirements for Discharges to a Playa);

(8) [~~(7)~~] records that show the control facilities have been inspected for structural integrity and maintenance, the date of each inspection, and a description of the findings;

(9) records describing mortality management practices;

(10) [~~(8)~~] a log of all manure, sludge [~~litter~~], and wastewater used at the CAFO updated at least monthly. For CAFOs where manure, sludge [~~litter~~], or wastewater is applied on LMUs [~~property owned, operated, controlled, rented, or leased by the CAFO owner or operator~~], such records must include the following information:

(A) date of manure, sludge [~~litter~~], or wastewater application to each LMU;

(B) location of the specific LMU and the volume applied during each application event;

(C) acreage of each individual crop on which manure, sludge [~~litter~~], or wastewater is applied;

(D) basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than manure, sludge [~~litter~~], or wastewater on a dry basis;

(E) the percentage of moisture content of the manure;

(F) actual annual yield of each harvested crop; and

(G) weather conditions (such as the temperature, precipitation, and cloud cover) during the land application and 24 hours before and after the land application;

(11) [~~(9)~~] annual nutrient analysis for [~~at least one representative sample of~~] irrigation wastewater, sludge, if applicable, and [~~one representative sample of~~] manure[~~/litter for total nitrogen, total phosphorus, and total potassium~~];

(12) documentation describing any discharge into water in the state including the date, time, volume of overflow, a copy of the notification(s) provided to the regional office, and sample analysis results associated with the discharge;

(13) [~~(10)~~] the results of initial and annual soil analysis reports as required by this subchapter; and

(14) [~~(11)~~] copies of all notifications to the executive director, including any made to a Texas Commission on Environmental Quality regional office, as required by this subchapter, a permit, or authorization.

(e) Reporting requirements.

(1) The CAFO operator shall furnish to the appropriate regional Texas Commission on Environmental Quality office and the commission's Office of Compliance and Enforcement, Enforcement Division in Austin, soil testing analysis of all soil samples with the annual report due February 15 of each year.

(2) CAFO operators shall provide all other reports required by this subchapter to the Office of Compliance and Enforcement, Enforcement Division.

§321.47. Requirements for Animal Feeding Operations (AFOs) Not Defined or Designated As Concentrated Animal Feeding Operations (CAFOs).

(a) Purpose. This section provides an animal feeding operation (AFO) that is not defined or designated as a concentrated animal feeding operation (CAFO) authorization to operate, and identifies the operational requirements necessary to achieve the purposes of this subchapter.

(b) Applicability.

(1) Except as identified in paragraph (2) of this subsection, the owner or operator of an AFO not defined or designated as a CAFO who uses a control facility to manage manure, sludge [~~litter~~], or wastewater generated on site shall comply with all the requirements of this section.

(2) The owner or operator of an AFO not defined or designated as a CAFO who qualifies for, obtains, and is operating under a certified water quality management plan from the Texas State Soil and Water Conservation Board (TSSWCB) and subsection (c)(1) - (4) [~~(3)~~] of this section are considered to meet all technical requirements of this section.

(3) The owner of an AFO not defined or designated as a CAFO who uses an alternative treatment practice, such as filter strips (Natural Resources Conservation Service (NRCS) Code 393), constructed wetlands (NRCS Code 656), or vegetated treatment areas (NRCS Code 635), instead of [~~does not use~~] a control facility to manage manure, sludge [~~litter~~], or wastewater generated on site shall comply with all [~~adhere to~~] the [~~following general~~] requirements of this section except the requirements mentioned in subsection (d) of this section.

[~~(A) The owner shall ensure that manure, litter, or wastewater generated at an AFO is stored, beneficially used, or disposed of in a manner that will protect surface and groundwater quality.~~]

[~~(B) The owner shall prevent nuisance conditions and minimize odor conditions.~~]

(c) General requirements.

(1) An AFO operator must locate, construct, and manage the control facility, alternative treatment practice, and land management unit (LMU) in a manner that will protect surface and groundwater quality.

(2) An AFO operator must prevent nuisance conditions and minimize odor conditions in accordance with the requirements of §321.31(b) of this title (relating to Manure, Litter, and Wastewater Discharge and Air Emission Limitations).

(3) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained to ensure good drainage by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding. [~~The AFO may discharge from the production area, if the discharge is the result of a chronic or catastrophic rainfall event, or catastrophic condition which exceeds the design capacity of a retention control structure (RCS) that has been properly designed, constructed, operated, and maintained. RCSs shall be designed in accordance with §321.38 of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)).~~]

(4) An AFO shall not expand operations, either in size or numbers of animals, before amending or enlarging the manure [~~waste~~] handling procedures and structures to accommodate all additional manure [~~wastes~~] that will be generated by the expanded operations.

(5) As applicable to the operation, the production area of a new or expanding AFO must comply with the requirements of §321.41 of this title (relating to Special Requirements for Discharges to a Playa).

(6) All control facilities, alternative treatment practices, [~~including~~] holding pens, and retention control structures (RCSs) [~~RCSs,~~] must be located outside of the 100-year flood plain unless the structures [~~control facilities~~] are protected from inundation and damage that may occur during the 100-year flood event.

(7) Where applicable, equivalent measures contained in a site-specific plan which meet the requirements of this subchapter may be substituted for applicable best management practices and/or portions of the technical requirements in this subchapter. Equivalent measures may be contained in:

(A) United States Department of Agriculture (USDA) - NRCS [~~Natural Resources Conservation Service (NRCS)~~] Field Office Technical Guide [~~(FOTG)~~] for Texas; [~~and/~~]or

(B) TSSWCB rules [~~regulations~~]; [~~and/~~]or

(C) a certified water quality management plan certified by the TSSWCB; [~~and/~~]or

(D) a comprehensive nutrient management plan (CNMP) certified by the TSSWCB, the USDA - NRCS, or their designee.

(8) The AFO operator shall adhere to the well buffer requirements in §321.38(b) of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)) and §321.40(g) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements).

(d) Control facilities.

(1) The AFO operator shall minimize entry of uncontaminated runoff [~~non-process wastewater~~] into RCSs. Such measures may include the construction of berms, embankments, or similar structures.

(2) The AFO may discharge from the production area if the discharge is the result of a chronic or catastrophic rainfall event, or catastrophic condition that exceeds the design capacity of an RCS that has been properly designed, constructed, operated, and maintained. RCSs shall be designed in accordance with §321.38 of this title. [~~Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained to ensure good drainage by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding and to minimize the entrance of uncontaminated storm water to the RCS.~~]

(3) The AFO operator constructing a new or modifying an existing RCS shall ensure that all construction and design is certified by a licensed Texas professional engineer. The certification shall be signed and sealed in accordance with the requirements of the Texas [~~State~~] Board of Professional Engineers. All RCS design and construction shall, at a minimum, be in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, American Society of Testing Materials, or other technical [~~The operator must use those~~] standards approved by the executive director, that are in effect [~~current~~] at the time of construction. Where site-specific variations are warranted, the operator must ensure a licensed Texas professional engineer documents these variations and their appropriateness to the plan.

(4) Existing RCSs that [~~facilities which~~] have been properly maintained without any modifications and have [~~show~~] no apparent [~~signs of~~] structural problems [~~breakage~~] or leakage will be considered to be properly designed and constructed with respect to the RCS sizing, embankment design and construction, and liner requirements of this subchapter, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, the RCS must be certified by a licensed Texas professional engineer as providing protection equivalent to the requirements of this section. Structures built in accordance with site-specific NRCS plans and specifications will be considered to be in compliance with the design and capacity requirements of this subchapter if the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, manure [~~wastes~~] generated, etc.) and the RCS is operated and maintained in accordance with NRCS requirements.

(5) RCS embankments and liners shall be designed and constructed in accordance with the requirements of §321.38 of this title.

[~~(6) The AFO operator shall adhere to the well buffer requirements in §321.38 of this title.~~]

(6) [~~(7)~~] The AFO operator must maintain copies of documentation of the sources of information, assumptions, and calculations used in determining the appropriate volume capacity of the RCSs [~~retention facilities~~].

(7) [~~(8)~~] An irrigation system or other liquid manure removal system used by an AFO must be designed to ensure that the system is capable of dewatering the RCSs on a regular schedule. RCSs shall be equipped with [~~either~~] irrigation, [~~evaporation,~~] or wastewater [~~liquid~~] removal systems capable of dewatering the RCSs whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(8) [~~(9)~~] Sludge shall be removed from RCSs [~~in accordance with the design schedule for cleanout~~] to prevent the accumulation of sludge from encroaching on other required storage volumes [~~exceeding the designed sludge volume of the structure~~].

(e) Operation and maintenance.

(1) Sufficient volume shall be maintained at all times within the RCS to accommodate sludge, wastewaters, and contaminated stormwater [~~storm water~~] (rainwater runoff and direct precipitation) from the AFO facility.

(2) The operator shall restore such capacity after each rainfall event or accumulation of manure, sludge, or process-generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases so that irrigation will not cause runoff.

(3) The normal operating wastewater level in the RCS shall be maintained within the design of the RCS. If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event [~~(25-year or 100-year)~~] the operator must document the conditions that resulted in this occurrence. As soon as irrigation is not prohibited, the AFO operator shall irrigate until the water level is at or below the design rainfall level.

(4) Adequate equipment shall be available and maintained in good working order to remove such manure, sludge, [~~waste~~] and wastewater from the RCS as required to maintain the required volume in [~~retention capacity of the facility for~~] compliance with this subchapter.

(5) A rain gauge capable of measuring the design [~~required~~] rainfall event shall be installed on site and properly maintained.

(6) The AFO operator shall install and maintain a [~~A~~] permanent pond marker [~~(measuring device) shall be maintained~~] in the RCS, visible from the top of the embankment that identifies, either physically or by onsite documentation, [~~to show the following:~~] the volume required for the design. [~~a 25-year, 24-hour~~] rainfall event [~~or a 100-year, 24-hour rainfall event, as required by the facility's design standard; and the predetermined minimum treatment volume within any treatment lagoon. The markings on the marker shall be visible from the top of the levee.~~]

(7) The AFO operator shall ensure that liners are protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas professional engineer within 30 days following discovery of the damage.

(8) The AFO operator shall maintain ponds, pipes, ditches, pumps, and diversion and irrigation equipment to ensure ability to fully comply with the terms of this subchapter.

(9) An AFO operator using a liquid manure handling system shall scrape or flush accumulated manure at least once per week or in accordance with proper design and maintenance of the facility.

(10) If an RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, the AFO operator shall take reasonable steps to irrigate wastewater to LMUs only to the extent necessary to prevent overflow from the RCS.

(f) Land application.

(1) The runoff of manure, sludge [~~litter~~], or wastewater to water in the state as the result of the application of manure, sludge [~~litter~~], or wastewater from an AFO is authorized provided the land application activity is implemented in accordance with a plan for nutrient management detailed in this section.

(2) The AFO operator shall apply manure, sludge [~~litter~~], and wastewater uniformly to suitable land at appropriate times and at agronomic rates. Timing and rate of applications shall be in response to crop needs, assuming usual nutrient losses, expected precipitation, and soil conditions.

(3) The AFO operator shall develop and utilize the information in this paragraph for land application unless a nutrient management plan (NMP) [~~an NMP~~] is developed and implemented. At that time, the NMP must be followed for land application. The AFO operator must adhere to the following:

(A) a site map showing the location of all LMUs; [~~any land application areas, either on site or off site which are owned, operated, controlled, rented, or leased by the facility owner or operator which will be utilized for land application of waste or wastewater;~~]

(B) the location, description, and limitations of the major soil types within the identified LMUs, and a plan to address the soil limitations;

(C) crop types and rotations to be implemented on an annual basis;

(D) predicted yield goals based on the major soil types within the identified LMUs;

(E) procedures for calculating nutrient budgets to be used to determine application rates;

(F) a detailed description of the type of equipment and method of application to be used in applying the manure, sludge [~~waste~~] or wastewater; and

(G) projected rates and timing of application of the manure, sludge, and wastewater as well as other sources of nutrients that will be applied to the LMUs.

(4) Discharge of manure, sludge [~~litter~~], or wastewater from the LMU is prohibited and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.

(5) Application rates of manure, sludge, and wastewater shall not exceed the crop requirement of the crop or planned crop planting [~~with any land application of wastewater and/or manure~~]. Land application rates of manure sludge, and wastewater shall be based on the available nutrient content of the manure, sludge, and wastewater.

(6) Land application shall not occur when the ground is frozen or saturated or during rainfall events, unless in accordance with §321.39(b)(3) of this title (relating to Operational [~~Control Facility~~] Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)).

(7) Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent discharge of tailwater to waters in the state, prevent pollution of waters in the state, and prevent the occurrence of nuisance conditions.

(8) The land application of manure, sludge [~~litter~~], and wastewater at agronomic rates shall not be considered surface disposal and is not prohibited.

(9) Manure, sludge [~~litter~~], or wastewater may be applied to the areas in the 100-year flood plain at agronomic rates not to exceed the hydrologic needs of the crop.

(10) The AFO operator shall develop and maintain the calculations and assumptions used for determining land application rates and all nutrient analysis data.

(11) The AFO operator shall annually analyze at least one representative sample of irrigation wastewater and sludge, if applicable, and one representative sample of manure[~~/litter~~] for total nitrogen, total phosphorus, and total potassium.

(12) Vegetative buffer strips shall be no less than 100 feet of vegetation to be maintained between manure, sludge, [~~waste~~] or wastewater application areas and surface water and watercourses. The AFO operator shall maintain the buffer strips in accordance with NRCS guidelines. A buffer is not required for wastewater irrigation when applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited.

(13) Manure[~~/litter~~] and sludge storage capacity requirements based upon manure[~~/litter~~] and sludge [~~waste~~] production, land availability, and [~~the USDA -~~] NRCS or equivalent standards. Manure or sludge [~~FOTG for Texas shall be provided. Permanent storage structures for AFO operations must meet NRCS design specifications. All litter/manure removed from operation and not temporarily~~] stored for more than 30 days must be stored [~~located~~] within the drainage area of an [~~the~~] RCS, or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated stormwater [~~well-drained area with no ponding of water, and where the top and sides of stockpiles are adequately sloped to ensure proper drainage to prevent polluted rainfall~~] runoff from the storage area. Storage for more than 30 days is prohibited in the 100-year flood plain.

(14) Temporary storage of manure and sludge shall not exceed 30 days and is allowed only in LMUs or an RCS drainage area. Temporary storage of manure or sludge in the 100-year flood plain, near water courses or recharge features is prohibited unless protected from [~~by berms or other structures sufficient to prevent~~] inundation and damage that may occur during the [~~a~~] 100-year flood event. Contaminated [~~storm. Temporary storage of manure/litter shall not exceed 30 days and is only allowed in LMUs. Polluted~~] runoff from manure[~~/litter~~] and sludge storage piles must be retained on site.

(15) Any dairy AFO that is located in the major sole-source impairment zone, as defined under §321.32 of this title (relating to Definitions), at a minimum must provide for management and disposal of manure [~~waste~~] in accordance with §321.42(i) of this title (relating to Requirements Applicable to the Major Sole-Source Impairment Zone).

(16) Nighttime application of liquid or solid manure [~~waste~~] shall be allowed only in areas with no occupied residence(s) within 1/4 mile from the outer boundary of the LMU receiving manure[~~/litter~~], sludge, or wastewater application. In areas with an occupied residence within 1/4 mile from the outer boundary of the LMU, application shall only be allowed from one hour after sunrise

until one hour before sunset, unless the current occupants of such residences have, in writing, agreed to such nighttime applications.

(17) AFOs introducing wastewater or chemicals to water wellheads for the purpose of irrigation shall install backflow prevention devices in accordance with requirements contained in 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers).

(18) Composting on site at an AFO shall be performed in accordance with Chapter 332 of this title (relating to Composting). AFOs may compost manure [~~waste~~] generated on site, including manure, sludge [~~litter~~], bedding, feed, and dead animals. In accordance with Chapter 332 of this title, an AFO operator may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas shall be located within the drainage of the RCS. The runoff volume from compost areas shall be accounted for in the design of the RCS.

(19) Maintenance of animals.

(A) Animals confined at the AFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.

(B) An AFO that maintains animals in pastures must maintain crops, vegetation, forage growth, or postharvest residues in the normal growing season, excluding the feed and water trough areas and designated open lots.

(g) Sampling [~~Soil sampling~~] and testing.

(1) Initial sampling. Before commencing application of manure, sludge [~~The AFO operator is not required to collect soil samples from LMUs where manure, litter~~], or wastewater on LMUs and [~~has not been applied during the preceding year. The AFO operator must comply with paragraph (2) of this subsection~~] before resuming land application on [~~to such~~] LMUs. Where manure, sludge, or

[~~(2)~~] [~~Prior to commencing~~] wastewater was not applied during the preceding year [~~irrigation or manure, litter application on land owned, operated, controlled, rented, or leased by the AFO operator, and annually thereafter~~], the operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable) and wastewater for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample [~~samples~~] from each LMU [~~of the LMUs~~] according to the [~~following~~] procedures in paragraphs (4) and (5) of this subsection; and

(C) Utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(2) Annual sampling. The operator shall:

(A) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater, for total nitrogen, total phosphorus, and total potassium;

(B) collect and analyze at least one representative soil sample from each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in paragraphs (4) and (5) of this subsection; and

(C) utilize the results of these analyses in determining application rates for manure, sludge, and wastewater.

(3) The operator shall make the most recent nutrient analysis available to any recipient of manure, sludge, or wastewater.

(4) [~~(3)~~] Sampling procedures. The operator shall employ sampling procedures using accepted techniques of soil science for obtaining representative samples and analytical results.

(A) Samples shall [~~should~~] be collected using approved methods [~~procedures~~] described in the agency's [~~executive director's~~] guidance RG-408 [~~document~~] entitled "Soil Sampling for Concentrated Animal Feeding Operations." [~~Nutrient Utilization Plans" as updated.~~]

(B) [~~(4)~~] Samples shall [~~should~~] be collected by the operator or its designee and analyzed by a soil testing laboratory annually [~~within the same 45-day time frame each year~~].

(C) [~~(5)~~] Obtain one [~~One~~] composite sample [~~shall be collected~~] for each [~~soil depth zone per~~] LMU and per uniform soil type (soils with the same characteristics and texture) within the LMU.

(D) [~~(6)~~] Composite samples shall be comprised of ten to 15 randomly sampled cores at a depth of zero to six inches. [~~obtained from each of the following soil depth zones:~~]

[~~(A) Zone 1: zero to six inches for LMUs where the manure or litter is incorporated directly into the soil or zero to two inches for LMUs where the waste is not incorporated into the soil; if a zero to two-inch sample is required under this subsection, then an additional sample from the two to six-inch soil depth zone shall be obtained in accordance with the provisions of this section; and~~]

[~~(B) Zone 2: six to 24 inches.~~]

(5) Laboratory analysis. The operator shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include: nitrate reported as nitrogen in parts per million (ppm); phosphorus (extractable, ppm, using Mehlich III extractant with Inductively Coupled Plasma (ICP) analysis); potassium (extractable, ppm); sodium (extractable, ppm); magnesium (extractable, ppm); calcium (extractable, ppm); soluble salts (ppm) or electrical conductivity (deciSiemens/meter (dS/m) or millimhos/cm (mmhos/cm) determined from extract of 2:1 volume to volume (v/v) water/soil mixture); and soil water pH (soil:water, 1:2 ratio).

(6) [~~(7)~~] Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop use, and yield goal. Soil test reports shall include nutrient recommendations for the crop yield goal.

[~~(8) Chemical/nutrient parameters and analytical procedures for laboratory analysis of soil samples from LMUs shall include the following:~~]

[~~(A) nitrate reported as nitrogen in parts per million (ppm);~~]

[~~(B) phosphorus (extractable, ppm) - Mehlich III (ppm), using Inductively Coupled Plasma (ICP);~~]

[~~(C) potassium (extractable, ppm);~~]

[~~(D) sodium (extractable, ppm);~~]

[~~(E) magnesium (extractable, ppm);~~]

[~~(F) calcium (extractable, ppm);~~]

[~~(G) soluble salts/electrical conductivity (deciSiemens/meter (dS/m)) - determined from extract of 2:1 (volume to volume (v/v)) water/soil mixture; and~~]

[~~(H) soil water pH.~~]

(h) Nutrient utilization plans (NUPs).

(1) Manure, sludge, or wastewater [~~An operator~~] shall not be land applied to a [~~apply any waste or wastewater to the~~] LMU, unless the land [~~waste or wastewater~~] application is implemented in accordance with a detailed NUP when results of the annual soil analysis for extractable phosphorus indicate:

(A) a level greater than 200 ppm [~~of extractable phosphorus (reported as P) in Zone 1 for a particular LMU~~]; or

(B) a level greater than 350 ppm [~~of extractable phosphorus in Zone 1 (zero to six-inch depth)~~] for an LMU where the average annual rainfall is 25 inches or less, erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, and the closest edge of the field is more than one mile from a named stream; or

(C) if ordered by the commission to do so in order to protect water [~~the quality of waters~~] in the state.

(2) An NMP, based on crop removal, certified in accordance with NRCS Practice Standard Code 590 complies with the requirements of a complete and effective NUP.

(3) A NUP, based on crop removal, shall be developed by an employee of the NRCS, a nutrient management specialist certified by the NRCS, the TSSWCB, Texas AgriLife [~~Cooperative~~] Extension Service, an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas, or a professional agronomist or soil scientist certified by the American Registry of Certified Professionals in Agronomy, Crops and Soils, after approval by the executive director based on a determination by the executive director that another person or entity identified in this paragraph cannot develop the plan in a timely manner. No land application under an approved NUP shall cause or contribute to a violation of water quality standards or create a nuisance.

(4) Land application under the terms of the NUP may begin as soon as the plan is developed in accordance with this subsection. After a NUP has been implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below 200 ppm. Thereafter, the AFO operator shall apply manure, litter, or wastewater at agronomic rates according to the requirements of this section.

(i) Recordkeeping requirements.

(1) Records required under this subsection must be kept on site for a minimum of five years from the date the record was created. Any AFO operator that does not use an RCS is not subject to subparagraphs (B) - (D) and (F). Unless otherwise specified, records shall include:

(A) a list of any significant spills of pollutants with the potential to reach water in the state;

(B) a schedule for liquid manure [~~waste~~] removal;

(C) a date log indicating weekly inspection of wastewater level in the RCS;

(D) a log of all measurable rainfall events;

(E) a copy of the results of initial and annual soils, manure, sludge [~~litter~~], and wastewater analyses;

(F) records of dates of inspection of the RCS, and a log of the findings of such inspections [~~as required under subsection (k)(2) of this section~~];

(G) the groundwater monitoring plan associated with the use of a playa;

[~~(H) a copy of the NUP, if required;~~]

(H) [~~(I)~~] site-specific documentation that no significant hydrologic connection exists between the wastewater in the RCS and water in the state; [~~and~~]

(I) [~~(J)~~] any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge [~~litter~~], or wastewater; and[~~.~~]

(J) a copy of the NUP, if required.

(2) For facilities where manure, sludge [~~litter~~], or wastewater is applied on LMUs [~~property owned, operated, controlled, rented, or leased by the AFO owner or operator~~], such records shall include the following information:

(A) the date of manure, sludge [~~litter~~], or wastewater application to each field;

(B) the location of the specific LMU [~~application site~~] and volume or amount applied [~~the number of acres utilized~~] during each application event;

(C) the acreage of each individual crop on which manure, sludge [~~litter~~], or wastewater is applied;

(D) the assumptions [~~basis~~] for calculating [~~and~~] the total amount of nitrogen and phosphorus applied per acre to each field, including sources of nutrients other than manure, sludge [~~litter~~], and wastewater[~~; the number of dry tons; and the percentage of nitrogen/phosphorus based~~] on a dry basis;

(E) the percentage of moisture content of the manure and sludge; and

(F) the actual annual yield of each harvested crop.

(3) Where manure, sludge [~~litter~~], or wastewater, if applicable, [~~is removed from the facility, records must be maintained in accordance with §321.46(d)(8) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting). If manure~~] is sold or given to other persons for off-site land application or disposal, the operator must maintain a log of: the date of removal from the AFO [~~CAFO~~]; the name and address of the recipient [~~hauler~~]; and the amount, in wet tons, dry tons, or cubic yards, of manure or gallons of wastewater [~~waste~~] removed from the AFO [~~CAFO~~]. (A single pickup load need not be recorded.) [~~Where the wastes are to be land applied by the hauler, the operator must make available to the hauler any nutrient sample analysis of the manure from that year.~~]

(j) Documentation of liner maintenance. The operator shall have an NRCS engineer, licensed Texas professional engineer, or licensed Texas professional geoscientist review the documentation and conduct [~~do~~] a site evaluation every five years.

(k) Groundwater monitoring. In the event that [~~one or more samples of~~] groundwater monitoring is [~~are~~] required by §321.41 of this title or required by the executive director, the operator shall annually collect a groundwater [~~must~~] sample from each well that provides water for the facility. Each sample shall be analyzed for nitrate as nitrogen and chloride where groundwater monitoring is required by §321.41 of this title and analyzed [~~annually~~] for nitrate as nitrogen, chloride, and total dissolved solids where groundwater monitoring is required by the executive director. The operator shall use [~~using~~] the methods outlined in the groundwater monitoring [~~pollution prevention~~] plan, and compare the analytical results to the baseline data. Data from any required monitoring wells must be submitted to the executive director and kept on site for five years. The first year's sampling shall be considered the baseline data and must be retained on site for the life of the facility, unless otherwise provided by the executive director. If a 10% devia-

tion in concentration of any of the sampled constituents is found, the operator must notify the executive director within 30 days of receiving the analytical results.

(l) Inspections. The AFO operator must conduct the following inspections to assure the facility maintains its efficiency. Records of inspections shall be maintained for a period of five years.

(1) Preventative maintenance program. The operator shall conduct weekly inspections of [~~periodically inspect designated equipment at~~] the control facility and land application equipment to determine preventative maintenance or repair needs. Operators that do not use an RCS are required to conduct inspections for applicable portions of their operation as required by this section [~~LMUs~~]. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system or the creation of a nuisance. Inspections shall include visual inspections and equipment testing to uncover conditions that could cause breakdowns or failures resulting in discharge of pollutants to water [~~waters~~] in the state or the creation of a nuisance condition.

(2) Site inspection. A complete inspection of the control facility and LMUs shall be done and a report documenting the findings of the inspection made at least once a year. The inspection shall be conducted by the operator to verify that the description of potential pollutant sources is accurate, and the controls necessary to reduce pollutants and avoid nuisance conditions are being implemented and are adequate. Records documenting significant observations made during the site inspection shall be retained. [~~Records of inspections shall be maintained for a period of five years.~~]

(m) Notification. An existing or new AFO operator has the continuing obligation to provide the executive director notice of the number of animals in confinement in accordance with the following requirements.

(1) All new AFOs which confine a number of animals that fall within the range of the number of animals specified in any of the categories under §321.32(13)(B) [~~§321.32(12)(B)~~] of this title [~~(relating to Definitions)~~] shall notify the executive director of their legal entity name, physical location including a map or hand drawn sketch, mailing address, and number of head in confinement.

(2) Such notification shall be in writing and signed by the operator and shall be submitted not later than 180 days after commencement of operation.

(n) Closure required. The AFO operator shall properly close the AFO and RCS in accordance with a closure plan prepared by a licensed Texas professional engineer. The AFO and RCS must be closed within one year of permanently [~~inactivity or~~] ceasing [~~of~~] operations at the facility[~~,~~] or [~~in accordance with~~] an alternate [~~alternative~~] schedule determined [~~in a closure plan prepared~~] by a licensed Texas professional engineer. The closure plan for the RCS must be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments, as updated) and using the guidelines contained in the Texas AgriLife [~~Cooperative~~] Extension Service/NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures, as updated). The RCS or AFO is considered to be properly closed upon certification by a licensed Texas professional engineer that closure is complete according to the closure plan. AFOs shall maintain compliance with the requirements of this subchapter until the facility has been properly closed.

The agency certifies that legal counsel has reviewed the proposal and found it to be within the state agency's legal authority to adopt.

Filed with the Office of the Secretary of State on February 28, 2014.

TRD-201400938
Robert Martinez
Director, Environmental Law Division
Texas Commission on Environmental Quality
Earliest possible date of adoption: April 13, 2014
For further information, please call: (512) 239-2548

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TITLE 34. PUBLIC FINANCE

PART 1. COMPTROLLER OF PUBLIC ACCOUNTS

CHAPTER 3. TAX ADMINISTRATION
SUBCHAPTER S. MOTOR FUEL TAX

34 TAC §3.430

The Comptroller of Public Accounts proposes an amendment to §3.430, concerning records required, information required.

Subsection (a) states this rule applies only to motor fuel transactions that take place on or after January 1, 2004. Motor fuel transactions that occur prior to January 1, 2004, are governed by sections in Texas Administrative Code, Title 34, Part 1, Chapter 3, Subchapter L. The amendment removes subsection (a), as the 2004 date is no longer relevant and Subchapter L has been repealed. Subsequent subsections are re-lettered and corrections to subsections referenced are made throughout the section.

In addition, re-lettered subsection (a) is amended to implement House Bill 2148, 83rd Legislature, 2013. Paragraph (11) is amended to include compressed natural gas and liquefied natural gas in the purchase invoice and distribution log requirements of an interstate trucker, and to require an interstate trucker that delivers compressed natural gas or liquefied natural gas into the fuel supply tank of a motor vehicle to obtain a compressed natural gas and liquefied natural gas dealer license. New paragraph (13) is added to require an aviation fuel dealer that delivers compressed natural gas or liquefied natural gas to obtain a compressed natural gas and liquefied natural gas dealer license. Subsequent paragraphs are re-numbered. New paragraph (17) is added to identify the records required to be maintained by a compressed natural gas and liquefied natural gas dealer. New paragraph (18) is added to identify the records required to be maintained by a metropolitan transit authority or regional transit authority that operates a compressed natural gas or liquefied natural gas refueling facility. New paragraph (19) is added to require a metropolitan transit authority or regional transit authority that delivers compressed natural gas or liquefied natural gas into the fuel supply tank of a non-transit motor vehicle or motor vehicle not operated by the metropolitan transit authority or regional transit authority to obtain a compressed natural gas and liquefied natural gas dealer license. Finally, re-numbered paragraph (20) is amended to identify the compressed natural gas and liquefied natural gas records required when a person who does not hold a license under Tax Code, Chapter 162, claims a refund.

Non-substantive changes due to grammatical corrections and to improve readability are made to subsection (a)(7)(ii), (9), (9)(E),

Texas Commission on Environmental Quality

ORDER ADOPTING AMENDED RULES

Docket No. 2009-1016-RUL

Rule Project No. 2009-011-321-OW

On July 2, 2014, the Texas Commission on Environmental Quality (Commission) adopted amended rules in 30 TAC Chapter 321, Subchapter B, concerning Concentrated Animal Feeding Operations (CAFOs). The proposed amended rules were published for comment in the March 14, 2014, issue of the *Texas Register* (39 TexReg 1868).

IT IS THEREFORE ORDERED BY THE COMMISSION that the amended rules are hereby adopted. The Commission further authorizes staff to make any non-substantive revisions to the rules necessary to comply with *Texas Register* requirements. The adopted rules and the preamble to the adopted rules are incorporated by reference in this Order as if set forth at length verbatim in this Order.

This Order constitutes the Order of the Commission required by the Administrative Procedure Act, Government Code, § 2001.033.

If any portion of this Order is for any reason held to be invalid by a court of competent jurisdiction, the invalidity of any portion shall not affect the validity of the remaining portions.

Date Issued:

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

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Bryan W. Shaw, Ph.D., P.E., Chairman