

Texas Commission on Environmental Quality

P.O. Box 13087 Austin, Texas 78711-3087



GENERAL PERMIT TO DISCHARGE WASTES

under provisions of Section 402 of the Clean Water Act,
Chapter 26 of the Texas Water Code and
30 Texas Administrative Code Chapter 205
This permit supersedes and replaces

General Permit No. TXG920000, issued on July 10, ~~2014~~2019

Concentrated animal feeding operations (CAFOs) located in the state of Texas, may discharge into or adjacent to surface water in the state only according to limitations, monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ ~~or Commission~~), the laws of the State of Texas, and other orders of the Commission ~~of the TCEQ~~ (~~Commission~~). This general permit meets the Clean Water Act and the Texas Water Code requirements for the protection of water quality. This general permit is applicable both to Texas Pollutant Discharge Elimination System (TPDES) and State-only CAFOs. The issuance of this general permit does not grant to the permittee the right to use private or public property for the conveyance of manure, sludge, or wastewater. This includes property belonging to, but not limited to any individual, partnership, corporation, or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws and regulations. It is the responsibility of the permittee to acquire any property rights that may be necessary for the conveyance of manure, sludge, or wastewater.

This general permit and the authorization contained herein shall expire at midnight on July 20, ~~2024~~2029.

EFFECTIVE DATE: July 20, ~~2019~~2024

ISSUED DATE:

For the Commission

Concentrated Animal Feeding Operations General Permit No. TXG920000

GENERAL PERMIT NUMBER TXG920000

RELATING TO THE DISCHARGE OF MANURE, SLUDGE AND WASTEWATER FROM CAFO FACILITIES

TABLE OF CONTENTS	PAGE
ABBREVIATIONS.....	4
PART I. DEFINITIONS	5
PART II. PERMIT APPLICABILITY AND COVERAGE	12
A. Discharges Eligible for Authorization	12
B. Limitations on Coverage.....	12 13
C. Obtaining Authorization	14
1. Application for Water Quality Authorization.....	14
2. Application for a New Authorization or Significant Expansion of an Existing CAFO.....	14 15
3. Application for a Substantial Change.....	16
4. Contents of the NOI.....	17
5. Pollution Prevention Plan (PPP).....	18
6. Fees.....	18
7. Revocation of Individual Permit	18
8. Change of Ownership or Operational Control	18
9. Notice of Change.....	19
10. Air Quality Authorization	21 20
D. Termination of Coverage.....	22 21
E. Authorization Under an Individual Permit.....	22 21
F. Permit Expiration.....	23 22
G. Construction and Operational Deadline	23
PART III. POLLUTION PREVENTION PLAN (PPP) REQUIREMENTS	24 23
A. Technical Requirements	24 23
1. Pollution Prevention Plan General Requirements:.....	24 23
2. Maps	25 24
3. Recharge Feature Certification.....	25 24
4. Potential Pollutant Sources/Site Evaluation.....	26 25
5. Discharge Restrictions, Numeric Effluent Limitations, and Monitoring Requirements	27
6. Retention Control Structure (RCS) Design and Construction.....	29
7. Cooling Pond	36 35
8. Special Considerations for Existing RCS(s)	36 35
9. Manure and Sludge Storage	37 36
10. RCS Operation and Maintenance	37 36
11. General Operating Requirements	39 38
12. Land Application.....	39 38
13. Sampling and Testing.....	43 42
14. Nutrient Utilization Plan (NUP) Applicable to State- only CAFOs.....	44 43
15. Preventative Maintenance Program.....	46 45

Concentrated Animal Feeding Operations General Permit No. TXG920000

16. Management Documentation	474 6
B. General Requirements.....	484 7
C. Training	494 8
D. Closure Requirements.....	504 9
PART IV. RECORDKEEPING, REPORTING, AND NOTIFICATION REQUIREMENTS	504 9
A. Recordkeeping	504 9
B. Reporting and Notification	525 1
PART V. STANDARD PERMIT CONDITIONS.....	54
APPENDIX I.....	585 7
METHODOLOGY FOR CALCULATING MAXIMUM APPLICATION RATES AND	585 7
ANNUAL RECALCULATION OF APPLICATION RATES	585 7
TABLE 1 TO APPENDIX I: PHOSPHORUS INDEX WORKSHEET FOR EAST TEXAS FROM NRCS PRACTICE STANDARD 590	595 8
Phosphorus Index Classification - East Texas.....	605 9
TABLE 1 TO APPENDIX I: PHOSPHORUS INDEX WORKSHEET FOR WEST TEXAS FROM NRCS PRACTICE STANDARD 590	616 0
Phosphorus Index Classification - West Texas	626 1
TABLE 2 TO APPENDIX I: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590 - TABLE 2A.....	636 2
TABLE 2 TO APPENDIX I: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590 - TABLE 2B.....	646 3

Concentrated Animal Feeding Operations General Permit No. TXG920000

Abbreviations

The following abbreviations, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

1. ASABE - American Society of Agricultural and Biological Engineers
2. ASTM International - (formerly American Society for Testing and Materials)
3. BMP - Best management practices
4. BOD5 - Biochemical Oxygen Demand, 5-day
5. CAFO - Concentrated Animal Feeding Operation
6. CFR - Code of Federal Regulations
7. CWA - Clean Water Act
8. ED - Executive Director
9. EPA - United States Environmental Protection Agency
10. LMU - Land management unit
11. MPN - Most probable number
12. NELAC - National Environmental Laboratory Accreditation Conference
13. NELAP - National Environmental Laboratory Accreditation Program
14. NMP - Nutrient management plan
15. NOC - Notice of change
16. NOI - Notice of intent
17. NOT - Notice of termination
18. NRCS - Natural Resources Conservation Service
19. NSPS - New Source Performance Standards
20. NUP - Nutrient utilization plan
21. PPP - Pollution prevention plan
22. RCS - Retention control structure
23. S-Crops Table -NRCS Crops for Texas: S_Crops.xls
24. SPAW - Soil Plant Air and Water Field and Pond Hydrology
25. SWFTL - Texas A&M AgriLife Extension Soil, Water and Forage Testing Laboratory.
26. TAC - Texas Administrative Code
27. TMDL - Total Maximum Daily Load
28. TWC - Texas Water Code
29. USC - United States Code

Concentrated Animal Feeding Operations General Permit No. TXG920000

Part I. Definitions

All definitions in Chapter 26 of the Texas Water Code (TWC) and 30 Texas Administrative Code (TAC) Chapters 205, 305 and 321 Subchapter B, shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

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

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 residues in the normal growing season. 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. A land management unit is not part of an AFO.

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.

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.

Beneficial use - Application of manure, sludge, or wastewater to land in a manner which 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.

Best management practices (BMPs) - The schedules of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of waters 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.

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

Catastrophic conditions - Conditions which cause structural or mechanical damage to an AFO from natural events including high winds, tornadoes, hurricanes, earthquakes, or other natural disasters, other than rainfall events.

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

Chronic or catastrophic rainfall event - A series of rainfall events that do not provide an opportunity for dewatering a retention control structure and that are

Concentrated Animal Feeding Operations General Permit No. TXG920000

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.

Concentrated animal feeding operation (CAFO) - 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 residues in the normal growing season and are defined as follows:

- (a) **Large CAFO** - Any AFO which stables and 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:
 - (1) 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;
 - (2) 1,000 veal calves;
 - (3) 700 mature dairy cattle (whether milkers or dry cows);
 - (4) 2,500 swine, each weighing 55 pounds or more;
 - (5) 10,000 swine, each weighing less than 55 pounds;
 - (6) 500 horses;
 - (7) 10,000 sheep or lambs;
 - (8) 55,000 turkeys;
 - (9) 125,000 chickens (other than laying hens if the operation does not use a liquid manure handling system);
 - (10) 30,000 laying hens or broilers (if the operation uses a liquid manure handling system);
 - (11) 82,000 laying hens (if the operation does not use a liquid manure handling system);
 - (12) 5,000 ducks (if the operation uses a liquid manure handling system); or
 - (13) 30,000 ducks (if the operation does not use a liquid manure handling system).
- (b) **Medium CAFO** - Any animal feeding operation 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:
 - (1) 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;
 - (2) 200 to 699 mature dairy cattle (whether milking or dry cows);
 - (3) 300 to 999 veal calves;
 - (4) 750 to 2,499 swine, each weighing 55 pounds or more;
 - (5) 3,000 to 9,999 swine, each weighing less than 55 pounds;
 - (6) 150 to 499 horses;

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (7) 3,000 to 9,999 sheep or lambs;
 - (8) 16,500 to 54,999 turkeys;
 - (9) 37,500 to 124,999 chickens (other than laying hens if the operation does not use a liquid manure handling system);
 - (10) 9,000 to 29,999 laying hens or broilers (if the operation uses liquid manure handling system);
 - (11) 25,000 to 81,999 laying hens (if the operation does not use a liquid manure handling system);
 - (12) 1,500 to 4,999 ducks (if the operation uses a liquid manure handling system);
or
 - (13) 10,000 to 29,999 ducks (if the operation does not use a liquid manure handling system).
- (c) **Small CAFO** - Any animal feeding operation that is designated by the Executive Director as a CAFO because it is a significant contributor of pollutants into 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 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.

Control facility - Any system used for the collection and retention of manure, sludge, or wastewater at the permitted facility until ultimate use or disposal. This includes all collection ditches, conduits, and swales for the collection of manure, sludge, or wastewater, and all retention control structures.

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

Crop removal - The amount of nutrients contained in and removed by harvest of the proposed crop.

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.

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

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.

Deteriorated well - ~~a~~ well that, because of its condition, will cause or is likely to cause pollution of any water in the state, including groundwater.

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

Edwards Aquifer - As defined in 30 TAC ~~Chapter~~ § 213.3 (relating to Definitions).

Concentrated Animal Feeding Operations General Permit No. TXG920000

Edwards Aquifer recharge zone - As defined in 30 TAC Chapter§ 213.3 (relating to Definitions).

Groundwater - Subsurface water that occurs below the water table in soils and geologic formations that are saturated, other than underflow of a stream or an underground stream.

Hydrologic connection - The connection and exchange between surface water and groundwater.

Initial authorization - The Notice of Intent (NOI) that was approved for the site when the facility was first authorized under TXG920000.

Land application - The act of applying manure, sludge, or wastewater associated with the AFO including distribution to, or incorporation into, the soil mantle primarily for beneficial use purposes.

Land management unit (LMU) - An area of land owned, operated, controlled, rented or leased by a CAFO permittee to which manure, sludge, or wastewater from the CAFO is or may be applied. This includes land associated with a single center pivot system or a tract of land on which similar soil characteristics exist and similar management practices are being used. Land management units 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 CAFO permittee for the purpose of off-site land application of manure, sludge, or wastewater wherein the manure, sludge or wastewater is given or sold to others for land application.

Liner - Any barrier in the form of a layer, membrane or blanket, either naturally existing, constructed or installed, to prevent a significant hydrologic connection between wastewater contained in retention control structures and water in the state.

Liquid manure handling system - A system in which freshwater or wastewater is used for transporting and land applying manure.

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) at least half of the water flowing into which 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):
 - (1) at least in part because of concerns regarding pathogens and phosphorus; and
 - (2) for which the Commission, at some time, has prepared and submitted a total maximum daily load standard.

Manure - Feces and/or urine excreted by livestock and poultry. Manure includes litter, bedding, compost, feed, and other raw materials commingled with feces and/or urine. Manure may exist in solid, semi-solid or slurry form.

Multi-year phosphorus application - A practice that allows manure application in a single year at rates in excess of the phosphorus requirements of the crops. In subsequent years, phosphorus may not be applied until the amount applied in the single year has been removed through plant uptake and harvest.

Concentrated Animal Feeding Operations General Permit No. TXG920000

Natural Resources Conservation Service (NRCS) - An agency of the USDA which provides assistance to agricultural producers for planning and installation of conservation practices through conservation programs and technical programs.

New source - ~~New source~~ ~~a~~As defined in 30 TAC ~~Chapter §~~ 305.2 (relating to Definitions) and that meet the criteria in 30 TAC ~~Chapter §~~ 305.534(b).

Notice of change (NOC) - A written submission to the Executive Director from a permittee authorized under a general permit, providing information on changes to information previously provided to the Commission, or any changes with respect to the nature or operations of the regulated entity or the characteristics of the discharge.

Notice of intent (NOI) - A written submission to the Executive Director from an applicant requesting coverage under the terms of a general permit.

Notice of termination (NOT) - A written submission to the Executive Director from a permittee authorized under a general permit requesting termination of coverage under the general permit.

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 which adversely affects human health or welfare, animal life, vegetation, or property, or which interferes with the normal use and enjoyment of animal life, vegetation, or property.

Nutrient Management Plan (NMP) - A plan based on the NRCS Practice Standard Nutrient Management Code 590, to address the amount (rate), source, placement (method of application), and timing of the application of plant nutrients and soil amendments.

Nutrient Utilization Plan (NUP) - A NMP to evaluate and address site specific characteristics of a LMU to ensure that the beneficial use of manure, sludge, or wastewater is conducted in a manner to prevent adverse impacts on water quality.

100-year flood plain - Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.

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. 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.

Operational - The facility is constructed to a point at which animals may be stabled, confined, fed, and maintained in accordance with this general permit. The facility does not have to be operating at the maximum number of animals authorized for the site.

Operator - The person responsible for the overall operation of a facility or part of a facility.

Owner - The person who owns a facility or part of a facility.

Permittee - Any person issued an individual permit or order or covered by a general permit.

Concentrated Animal Feeding Operations General Permit No. TXG920000

Person - An individual, corporation, organization, government or governmental subdivision or agency, business trust, partnership, association, or any other legal entity.

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.

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

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

Production area - That part of a CAFO that includes, but is not limited to, the animal confinement area, the manure storage area, the raw materials storage area, and the control facilities.

Professional Engineer (PE) - An engineer who maintains a current license through the Texas Board of Professional Engineers in accordance with the requirements for professional practice.

Professional Geoscientist (PG) - A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with the requirements for professional practice.

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:
 - (1) a tributary of a sole-source drinking water supply; and
 - (2) 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.

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 connection includes, but are not limited to: faults; fractures; sinkholes or other macro pores that allow direct surface infiltration; a permeable or a shallow soil material that overlies an aquifer; exposed

Concentrated Animal Feeding Operations General Permit No. TXG920000

geologic formations that are identified as an aquifer; or a water course bisecting an aquifer.

Retention control structure (RCS) - Any basin, pond, pit, tank, conveyance, or lagoon used to hold, store or treat manure, wastewater, and sludge. The term 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 or bermed manure and sludge storage areas.

Significant Expansion - Any change to the CAFO that increases the manure production at the CAFO by more than 50%, above the maximum operating capacity stated in the initial authorization for the facility under TXG920000.

Sludge - Solid, semi-solid, or slurry manure generated during the treatment of or storage of any manure or wastewater. The term includes material resulting from treatment, coagulation, or sedimentation of manure in a RCS. 30 TAC Chapter 312 rules covering sludge do not apply to this permit.

Soil Plant Air and Water (SPAW) Field Pond Hydrology - SPAW is a USDA 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.

Sole-source surface drinking water supply - A body of surface water that is identified as a public water supply in 30 TAC ~~Chapter S~~ 307.10, Appendix A and is the sole source of supply of a public water supply system, exclusive of emergency water connections.

Substantial change

- (a) Changing animal type or increasing authorized head count that increases the manure production at the CAFO by less than 50% of the maximum operating capacity stated in the initial authorization for the facility under TXG920000;
- (b) Adding land management units or increasing application acreage; and
- (c) Using a crop or yield goal to determine maximum application rates for manure or wastewater not included in the CAFOs authorization.

Texas State Soil and Water Conservation Board (TSSWCB) - The state agency charged with the overall responsibility for administering and coordinating the state's soil and water conservation program with the state's soil and water conservation districts. The TSSWCB is the lead agency for the planning, management and abatement of agricultural and silvicultural nonpoint source pollution.

25-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, or equivalent regional or state rainfall information.

Upset - An exceptional incident in which 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.

Wastewater - Any water, including process generated wastewater and precipitation,

Concentrated Animal Feeding Operations General Permit No. TXG920000

which comes into contact with any manure, sludge, bedding, or any raw material or intermediate or final material or product used in or resulting from the production of livestock or poultry or direct products (e.g., milk, meat, or eggs).

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 non-navigable, 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.

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 or place 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.

Wellhead protection structure - A structure used to protect the wellhead from irrigation wastewater. It may include a hard-walled, possibly framed, structure with a roof or otherwise covered. Structure should be secured to the ground or wellhead to withstand the elements (e.g., wind or storms) and grazing livestock. Structure must be designed to avoid wastewater from contacting the wellhead. Structure may be constructed of plywood, corrugated or sheet metal, fiber glass, plastics, synthetics, or other materials, which are structurally capable for the intended purpose. Structure may be removable or hinged to allow servicing of well or well components.

Part II. Permit Applicability and Coverage

A. Discharges Eligible for Authorization

This general permit provides authorization for facilities defined or designated as CAFOs to discharge manure, sludge, and wastewater associated with the operation of a CAFO into or adjacent to water in the state. The Executive Director ([ED](#)) may designate any AFO as a CAFO upon determining that it is a significant contributor of pollutants to water in the state. Discharges to water in the state may occur from a CAFO designed, constructed, and properly operated and maintained under the provisions of this general permit. Manure, sludge, and wastewater generated by a CAFO shall be retained and used in an appropriate and beneficial manner as provided in this general permit.

B. Limitations on Coverage

1. Limitations Based on Facility Location

Concentrated Animal Feeding Operations General Permit No. TXG920000

Discharges from the following CAFOs are not eligible for coverage under this general permit and must be authorized under an individual permit:

- (a) Except for an existing CAFO which was authorized by the Commission prior to January 10, 1997, any CAFO located within one mile of Coastal Natural Resource Areas as defined by Texas Natural Resources Code §33.203.
- (b) Any dairy CAFO located in a major sole-source impairment zone.
- (c) Any CAFO where 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. This paragraph does not apply to a poultry operation that does not use a liquid manure handling system, commonly referred to as a dry litter poultry operation.
- (d) Any CAFO where any part of a production area or LMU is located in a watershed of a segment listed on the current Environmental Protection Agency (EPA) approved Clean Water Act (CWA) ~~Section~~ § 303(d) list of impaired waters as required by 33 United States Code (USC) §1313(d) where a Total Maximum Daily Load (TMDL) implementation plan has been adopted by the Commission that establishes additional water quality protection measures for CAFOs that are not required by the CAFO general permit.
- (e) Any CAFO that has a site or customer classification that is “unsatisfactory performer” under 30 TAC Chapter 60.3 (relating to Use of Compliance History).
- (f) Any CAFO required to operate under an individual permit by the Executive Director.

2. Other Limitations

Discharges are not eligible for authorization under this general permit where prohibited by:

- (a) 30 TAC Chapter 311 (relating to Watershed Protection);
- (b) 30 TAC Chapter 213 (relating to the Edwards Aquifer); or
- (c) any other applicable rules or laws.

3. Denial of Authorization

- (a) The Executive Director may deny an application for authorization under this general permit, and may require that the applicant apply for an individual permit, if the Executive Director determines that the discharge will not meet water quality standards defined in 30 TAC Chapter 307.
- (b) The Executive Director may deny a notice of intent (NOI) or revoke authorization under this general permit if the applicant submits a false affidavit relating to public notice or public meeting that is consistent or equivalent to the rules in 30 TAC Chapter 39 Subchapter C.
- (c) The Executive Director may deny, cancel, revoke, or suspend authorization to discharge under this general permit based on a finding

Concentrated Animal Feeding Operations General Permit No. TXG920000

of historical and significant noncompliance. An applicant who owns or operates a facility classified as an “unsatisfactory performer” is entitled to a hearing before the Commission prior to having its coverage denied or suspended, in accordance with ~~Texas Water Code~~TWC § 26.040(h).

- (d) Denial of authorization to discharge under this general permit or suspension of a permittee's authorization under this general permit shall be in accordance with 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

C. Obtaining Authorization

1. Application for Water Quality Authorization

- (a) Submission of a NOI, and for Large CAFOs, a NMP, certified by a Certified Nutrient Management Specialist, is an acknowledgment that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit.
- (b) The NOI must contain all information as prescribed on forms provided by the Executive Director.
- (c) For renewal under this general permit, provisional authorization to discharge under the terms and conditions of this general permit begins 48 hours after a completed NOI is postmarked for delivery to the TCEQ. If the NOI is submitted electronically, provisional authorization to discharge under the terms and conditions of this general permit begins immediately following confirmation of receipt of the NOI by the TCEQ.

For a new CAFO or an existing CAFO that is proposing a significant expansion or substantial change to the facility, authorization under the terms and conditions of this general permit begins when the applicant is issued written approval of the NOI by the Executive Director.
- (d) Following review of the NOI, the Executive Director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.
- (e) A copy of the NOI, along with any correspondence from the Executive Director confirming permit coverage, shall be retained at the site and kept with the pollution prevention plan (PPP).
- (f) The owner of a facility must be the applicant identified on the NOI for authorization. If the facility is owned by one person and operated by another, the operator may be a co-applicant.

2. Application for a New Authorization or Significant Expansion of an Existing CAFO

An applicant for a new CAFO or significant expansion of an existing CAFO must adhere to the following procedures:

- (a) The applicant must submit the NOI, a complete technical application, and a NMP (NMP is not applicable to State-only CAFOs) to the Executive Director.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (b) After the applicant receives written instructions from the TCEQ's Office of Chief Clerk, the applicant must publish notice of the Executive Director's preliminary determination of the NOI, technical application, and the NMP.
- (c) The notice must include:
 - (1) the legal name of the CAFO applicant;
 - (2) the address of the applicant;
 - (3) a brief summary of the information included in the NOI, such as the general location of the CAFO and LMUs utilized by the CAFO, the proposed maximum number of animals for the CAFO, and a description of the receiving water and discharge route for any discharge;
 - (4) the location and mailing address where the public may provide comments to the Executive Director;
 - (5) the public location where copies of the NOI, Executive Director's technical summary, NMP and CAFO general permit may be reviewed; and
 - (6) if required by the Executive Director, the date, time and location of the public meeting.
- (d) The public notice must be published at least once in a newspaper of general circulation in the county where the CAFO is located or proposed to be located. This notice shall provide opportunity for the public to submit comments on the NOI, NMP, and Executive Director's technical summary. In addition, the notice shall allow the public the opportunity to request a public meeting. The Executive Director will hold a public meeting if it is determined there is significant public interest.
- (e) The public comment period begins on the first date the notice is published and ends 30 days later unless a public meeting is held. The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI or NMP for the CAFO fails to meet the technical requirements or conditions of this general permit.
- (f) If significant public interest exists, the Executive Director will direct the applicant to publish a notice of the public meeting. The applicant must publish notice of a public meeting at least 30 days before the meeting and hold the public meeting in the county where the facility is located or proposed to be located. TCEQ staff will facilitate the meeting. If a public meeting is held, the comment period will end at the conclusion of the public meeting.
- (g) At the public meeting, the applicant shall describe the proposed operations and provide maps and other facility data. The applicant shall provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the Executive Director. The public meeting held under this general permit is not an evidentiary proceeding.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (h) The applicant must publish public notice and if required, notice of the public meeting in accordance with Part II.C.2(c) at least once in a newspaper of general circulation in the county where the CAFO is located or proposed to be located.
- (i) The applicant must file with the TCEQ's Office of the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Office of Chief Clerk.
- (j) The Executive Director, after considering public comment, shall approve or deny the NOI based on whether the NOI and technical application meet the requirements of this general permit.
- (k) Persons whose names and addresses appear legibly on the sign in sheet from the public meeting and persons who submitted written comments to the TCEQ will be notified by the TCEQ's Office of Chief Clerk of the Executive Director's decision to issue or deny the authorization and provided the final technical summary the Executive Director considered when making the determination.

3. Application for a Substantial Change

An applicant for a CAFO requesting a substantial change to the terms of the NMP shall adhere to the following procedures:

- (a) The applicant must submit the notice of change (NOC) and those portions of the technical packet that are applicable to the change to the Executive Director.
- (b) The TCEQ's Office of the Chief Clerk shall issue and post the notice of the Executive Director's preliminary determination of the NOC and the revised terms of the NMP on the TCEQ website at <http://www14.tceq.texas.gov/epic/eCID/>. The notice shall include:
 - (1) the legal name of the CAFO applicant;
 - (2) the address of the applicant;
 - (3) a brief summary of the information included in the NOC, such as the general location of the CAFO, proposed change to the terms of the NMP and a description of the receiving water;
 - (4) the location and mailing address where the public may provide comments to the Executive Director;
 - (5) the public location where copies of the NOC, Executive Director's technical summary, NMP, and CAFO general permit may be reviewed; and
 - (6) if required by the Executive Director, the date, time, and location of the public meeting.
- (c) The public comment period begins on the first date the notice is posted and ends 30 days later unless a public meeting is held. The public may submit comments to the TCEQ Office of Chief Clerk during the comment period detailing how the revised terms of the NMP for the CAFO fail to meet the technical requirements or conditions of this general permit.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (d) The Executive Director will hold a public meeting if it is determined there is significant public interest. The Executive Director will post a notice of the public meeting on the TCEQ internet site at: <http://www14.tceq.texas.gov/epic/eCID/>. The notice of a public meeting will be posted at least 30 days before the meeting, and the meeting will be held in the county where the facility is located. TCEQ staff will facilitate the meeting and provide a sign in sheet for attendees to register their names and addresses. The public meeting held under this general permit is not an evidentiary proceeding. If a public meeting is held, the comment period will end at the conclusion of the public meeting.
- (e) The Executive Director, after considering public comment, shall incorporate the revised terms of the NMP into the permit. Once the revised terms of the NMP have been incorporated into the permit, the Executive Director will include the revised terms of the NMP into the permit record and notify the permittee and the public of the revised terms and conditions of the permit.

4. Contents of the NOI

Applicants seeking authorization to discharge under this general permit must submit a completed NOI on a form approved by the Executive Director. Large CAFOs, must also submit a NMP that satisfies the minimum requirements specified in Part III.A.12 of this permit. The NOI shall, at a minimum, include:

- (a) the legal name and address of the applicant;
- (b) the facility name and address;
- (c) the location of the CAFO;
- (d) the latitude and longitude of the production area;
- (e) a description and the size of the CAFO facility;
- (f) the number and type of animals and their housing situation;
- (g) the type of containment and storage;
- (h) each retention control structure capacity;
- (i) the estimated amount of manure and wastewater generated per year;
- (j) the estimated amount of manure and wastewater transferred off-site per year;
- (k) a description of each LMU including:
 - (1) total acreage of each LMU available for land application of manure or wastewater;
 - (2) the estimated land application rate; and
- (l) a topographic map or other diagram as specified in the instructions to the NOI.

Concentrated Animal Feeding Operations General Permit No. TXG920000

5. Pollution Prevention Plan (PPP)

A PPP must be developed according to the requirements of this permit prior to submittal of a NOI. The plan must be developed according to the requirements of Part III of this general permit and be signed according to requirements of Part V.J. of this general permit.

6. Fees

(a) Application Fees

(1) An application fee must be submitted with the NOI:

(i) \$75 for renewal or change of ownership or co-permittee submitted by online e-permitting;

(ii) \$100 for renewal or change of ownership or co-permittee submitted by paper;

(iii) \$350 for a new or significant expansion.

(2) A fee is not required for submission of a ~~Notice of Change (NOC)~~ or Notice of Termination (NOT).

(b) Annual Water Quality Fee

The annual water quality fee will be assessed on any CAFO that has an active authorization under this general permit on September 1st of each calendar year. To terminate coverage under this general permit and avoid the annual water quality fee, a NOT must be received by TCEO prior to September 1st

(1) Large CAFOs that are authorized under this general permit must pay an annual water quality fee of \$800.

(2) ~~except for State-Only and~~ dry litter poultry CAFOs ~~which~~ must pay an annual water quality fee of \$300.

~~The annual water quality fee will be assessed on any CAFO that has an active authorization under this general permit on September 1st of each calendar year. To terminate coverage under this general permit and avoid the annual water quality fee, a NOT must be received by TCEO prior to September 1st.~~

7. Revocation of Individual Permit

For facilities authorized under an individual permit and eligible for coverage under this general permit, the submittal of a NOI and NMP where required constitutes the applicant's intent to be authorized under this general permit and also serves as a request to voluntarily revoke coverage under an individual permit. The individual permit will be revoked following issuance of the authorization providing coverage under the general permit.

8. Change of Ownership or Operational Control

Authorization under this general permit is not transferable. If the permittee (either owner or operator) of the regulated entity changes, the present permittee must submit an NOT and the new owner or operator, if identified as a co-permittee, must submit an NOI. The NOT and NOI must be submitted

Concentrated Animal Feeding Operations General Permit No. TXG920000

not later than 10 days prior to the change in owner or operator status. The NOT and NOI will not be processed until the Executive Director is notified, in writing, that the change in owner or operator status has occurred. Any change in a permittee's Charter Number, as registered with the Texas Secretary of State, is considered a change in ownership of the company and would require the new owner or operator to apply for permit coverage as stated above. If the NOT and NOI are submitted as required under this provision; there will be no lapse in authorization for the facility.

9. Notice of Change

All permittees that are proposing changes to their authorization must submit such changes on a form prescribed by the Executive Director. The following changes to an existing CAFO shall be processed through a NOC:

(a) Large CAFOs

- (1) A NOC form must be submitted with supplemental or corrected information within 14 days following:
 - (i) the time when the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in the NOI or NOI attachments; or
 - (ii) the time when relevant facts in the NOI or NOI attachments change, including but not limited to: permittee address, permittee phone number, construction or modification of a RCS, or any change to the site map.
- (2) Changes to the terms of the NMP
 - (i) Substantial change to the terms of the NMP. Those changes that constitute a “substantial change” are defined in Part I, relating to definitions; or
 - (ii) Non-substantial changes include but are not limited to the following:
 - (A) a reduction in the number of permitted animals;
 - (B) a reduction in manure production;
 - (C) a decrease in LMU acreage;
 - (D) removal of a LMU;
 - (E) removal of crop(s) and or yield goal(s);
 - (F) changes to the site-specific LMU information on Table 1 of Appendix I - Phosphorus Index Worksheet of this general permit;
 - (G) changes to the maximum application rates, Lbs/Ac of nitrogen or phosphorus as P₂O₅ to be land applied; ~~and~~
 - (H) changes in the phosphorus index rating; and
 - ~~(I)~~(I) addition of a digester to the production area for methane gas recovery.

Concentrated Animal Feeding Operations General Permit No. TXG920000

(3) Substantial and Non-Substantial Changes to the NMP

- (i) When changes are made to the CAFO's NMP previously submitted to the Executive Director, the permittee must provide the Executive Director with a NOC form containing the terms of the most current version of the revised NMP and identify changes from the previous version, with the exception of annual recalculations of application rates for manure and wastewater, which are not required to be submitted to the Executive Director.
- (ii) When changes to a NMP are submitted, the Executive Director will review the changes to ensure that they meet the requirements of this permit. If the Executive Director determines that the changes to the NMP necessitate revision to the terms of the NMP incorporated into the permit issued to the CAFO, the Executive Director will determine whether such changes are substantial.
- (iii) If the Executive Director determines that the changes to the terms of the NMP are not substantial, the Executive Director will include the revised terms of the NMP in the permit record, revise the terms of the permit based on the site specific NMP, and notify the permittee and the public of any changes to the terms of the permit based on revisions to the NMP.

After permit issuance, the Executive Director will notify the public of the revised terms of the NMP by posting for 2 weeks on the TCEQ internet site at:

<https://www.tceq.texas.gov/permitting/wastewater/cafo/cafo-nonsubstantial-changes>.

- (iv) If the Executive Director determines that the changes to the terms of the NMP are substantial, the application shall be processed in accordance with Part II.C.3 of this general permit.

(b) State-Only CAFOs

A NOC form must be submitted with supplemental or corrected information within 14 days following:

- (1) the time when the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in the NOI or NOI attachments; or
- (2) the time when relevant facts in the NOI or NOI attachments change, including but not limited to: permittee address, permittee phone number, any increase in waste production other than those defined as a significant expansion, LMU acreage or boundaries, construction or modification of a RCS, addition of a digester to the production area for methane gas recovery, or any change to the site map.

Concentrated Animal Feeding Operations General Permit No. TXG920000

10. Air Quality Authorization

Air quality authorization under the Texas Clean Air Act, Texas Health and Safety Code §382.051, is required for all CAFOs, regardless of their size. Depending on its specific characteristics, a CAFO may obtain air quality authorization in one of three ways:

- (a) by meeting the requirements of a permit-by-rule under 30 TAC Chapter 106, Subchapter F (relating to Animal Confinement);
- (b) by obtaining an individual permit under 30 TAC Chapter 116 (relating to Control of Air Pollution by Permits for New Construction or Modification); or
- (c) by meeting the requirements of the air standard permit outlined in 30 TAC Chapter 321.43 (relating to Air Standard Permit Authorization for Concentrated Animal Feeding Operations).
- (d) Any CAFO that proposes to install a digester shall design and operate RCSs to minimize odors in accordance with accepted engineering practices. Each RCS shall be operated in accordance with the design and an operation and maintenance plan that minimizes odors.
 - (1) Accepted engineering practices to minimize odors include anaerobic treatment lagoons, aerobic treatment lagoons, or other equivalent technology.
 - (2) Accepted design standards and requirements for each of these methods of treatment are:
 - (i) an anaerobic treatment lagoon shall be designed in accordance with American National Standards Institute/American Society of Agricultural Engineers EP403.3 July 1999 (or subsequent updates); NRCS Field Office Technical Guidance, Practice Standard 359, Waste Treatment Lagoon, or the equivalent for the control of odors. The primary lagoon in a multi-stage lagoon system shall be designed with a minimum treatment volume so that the lagoon maintains a constant level at all times unless prohibited by climatic conditions. A multi-stage lagoon system shall be designed to minimize the amount of contaminated storm water runoff entering the primary lagoon by routing the contaminated storm water runoff into a secondary RCS;
 - (ii) aerobic treatment lagoons shall be designed in accordance with NRCS, Field Office Technical Guidance, Practice Standard 359, Waste Treatment Lagoon; or technical requirements for sizing the aeration portion of the system located in 30 TAC Chapter 217; and
 - (iii) equivalent technology or design standards shall indicate how the design of the RCS minimizes odors equivalent to an aerobic or anaerobic lagoon. These designs shall be developed and certified by a licensed Texas Professional Engineer. An “as-built” certification in letter form shall be completed by a

licensed Texas Professional Engineer before operation of the RCSs.

D. Termination of Coverage

1. A permittee shall terminate coverage under this general permit through the submittal of a NOT when the owner or operator, if identified as a co-permittee, of the facility changes, the discharge becomes authorized under an individual permit, or the use of the property changes and is no longer subject to regulation under this general permit. If the facility is no longer subject to this general permit, the permittee must close the facility in accordance with Part III.D of this general permit prior to terminating coverage and filing the NOT. A NOT must be received by the TCEQ prior to September 1st to avoid assessment of the annual water quality fee.
2. One of the following must be submitted within 24 hours of submitting a NOT:
 - (a) a NOI when the permittee or co-permittee of the facility changes,
 - (b) an individual permit application,
 - (c) certification by a licensed Texas Professional Engineer that closure has been completed, as required by Part III.D.(3), or
 - (d) a statement from the permittee that the facility will be operated as an AFO not defined or designated as a CAFO.
3. The authorization will not be terminated until:
 - (a) final action is taken on the NOI or individual permit application,
 - (b) receipt of certification by a licensed Texas Professional Engineer that closure is complete, or
 - (c) receipt of a statement from the permittee that the facility will be operated as an AFO not defined or designated as a CAFO.
4. This section does not prohibit the Executive Director from denying, cancelling, revoking, or suspending authorization to operate under this general permit, as allowed by Part II.B.3 of this permit and 30 TAC Chapter 205.4 (relating to Authorizations and Notices of Intent).

E. Authorization Under an Individual Permit

1. Individual Permit Alternative
Discharges eligible for authorization by this general permit may alternatively be authorized by an individual permit according to 30 TAC Chapters 281 and 305 (relating to consolidated permits).
2. Transfer of Authorization to an Individual Permit
When an individual permit is issued for a discharge that is currently authorized under this general permit, the permittee shall terminate coverage under this general permit and shall submit a NOT to the Executive Director. The authorization under this general permit will be terminated when the Executive Director takes final action on the individual permit and receives the

Concentrated Animal Feeding Operations General Permit No. TXG920000

NOT. A CAFO cannot be authorized under both the CAFO general permit and an individual permit.

F. Permit Expiration

1. Permit Term

This general permit is issued for a term not to exceed five (5) years. All active authorizations expire on the date provided on page one (1) of this general permit. Authorizations for discharge under the provisions of this general permit may be issued until the expiration date of the permit. This general permit may be amended, revoked, or cancelled by the Commission after notice and comment as provided by 30 TAC §§205.3 and 205.5.

2. Permit Renewal

If before the expiration of this permit, the Commission has made a determination to renew this general permit, the general permit shall remain in effect after the expiration date for those existing CAFOs covered by the general permit and shall remain in effect for these CAFOs until the date the Commission takes final action on the proposal to reissue the general permit. No new NOIs can be accepted or new authorizations issued under this general permit after the expiration date.

3. Application following Renewal

Upon issuance of this general permit, all facilities that wish to continue authorization, must submit a NOI on forms provided by the Executive Director in accordance with the requirements of this general permit, within ~~180~~ 90 days after the effective date. Failure to submit a NOI by the deadline will result in expiration of the existing authorization to operate under the expired general permit.

Facilities that do not wish to continue authorization under the renewed general permit must submit a NOT prior to September 1st to avoid the assessment of an annual water quality fee. Any facility still authorized up to 180 days after the general permit is renewed will be billed.

4. Expiration without Renewal

According to 30 TAC §205.5(d) (relating to Permit Duration, Amendment, and Renewal), if the Commission has made a determination that the general permit will not be renewed at least 90 days before the expiration date of this general permit, permittees authorized under this general permit shall submit an application for an individual permit before the general permit expires. If an application for an individual permit is submitted before the general permit expires, authorization under the expired general permit remains in effect until either the issuance or denial of an individual permit.

G. Construction and Operational Deadline

Any CAFO that obtains authorization under this general permit must be operational within 18 months of the date of the CAFOs authorization or must terminate coverage under this general permit by submitting a NOT. Upon written request to the TCEQ Water Quality Division, the Executive Director may grant a one-time extension up to an additional 18 months, to allow the CAFO additional

Concentrated Animal Feeding Operations General Permit No. TXG920000

time to become operational. If an extension is granted and the CAFO is not operational at the expiration of the extension period, the CAFO must submit a NOT terminating coverage under this general permit. The facility does not have to be operating at the maximum number of animals authorized to be considered operational.

Part III. Pollution Prevention Plan (PPP) Requirements

A. Technical Requirements

1. Pollution Prevention Plan General Requirements:

- (a) A PPP shall be developed prior to NOI and NMP submittal for each CAFO covered under this general permit. ~~PPP~~pollution prevention plans shall:
 - (1) be prepared in accordance with good engineering practices;
 - (2) include control measures necessary to limit the discharge of pollutants to surface water in the state;
 - (3) describe and ensure the implementation of practices that are to be used to assure compliance with the limitations and conditions of this permit;
 - (4) include all information listed in Part III.A; and
 - (5) identify specific individual(s) who is/are responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP.
- (b) Amending the PPP. The permittee shall revise the PPP:
 - (1) before any change in the acreage or boundaries of LMUs;
 - (2) before any increase in the maximum number of animals;
 - (3) after any new construction or modification of control facilities;
 - (4) before any change which has a significant effect on the potential for the discharge of pollutants to water in the state;
 - (5) if the PPP is not effective in achieving the general objectives of controlling pollutants in discharges from the production area or LMUs; or
 - (6) 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 general permit.
- (c) Equivalent PPP Standards

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 NRCS, Texas State Soil and Water Conservation Board, or their designee, that documentation may be used to document BMPs or applicable portions of the PPP requirements in this general permit. 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

Concentrated Animal Feeding Operations General Permit No. TXG920000

contains reference to a certified plan, a copy of the certified plan must be kept with the PPP.

2. Maps. The permittee shall maintain and update the following maps as part of the PPP:

(a) Site Map

The map shall show the production area and include, at a minimum, pens and open lots, barns, berms, permanent manure storage areas, composting areas, control facilities including RCSs, water wells (abandoned, plugged and in use), surface water in the state, and dead animal burial sites.

(b) Land Management Unit Map

The map shall include, at a minimum, the following information: the boundary and acreage of each LMU; all buffer zones required by this permit; the location of the production area; water wells, abandoned, plugged and in use, which are on-site or within 500 feet of the facility boundary; all surface water in the state located on-site and within one mile of the property boundary; and the facility boundary.

(c) Combined Maps

Because of the unique nature of some sites it is acceptable to combine the elements of the Land Management Unit Map with the Site Map as long as map features can be clearly determined.

3. Recharge Feature Certification

(a) The permittee shall have a recharge feature certification developed in accordance with 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. The certification must be 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 permittee and to be used as a part of a CAFO or LMU.

(b) If 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 Practices Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The protective measures must prevent impacts to an aquifer from any recharge features present. The protective measures must include at least one of the following:

(1) measures to protect each located recharge feature, such as impervious cover, berms, buffer zones, or other equivalent protective measures; or

(2) a detailed groundwater monitoring plan, in accordance with Part III.A.16(b); or

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (3) provisions for any other similar method or approach demonstrated by the applicant to be protective of any associated recharge feature and approved by the Executive Director.
 - (c) The permittee must implement the protective measures.
4. Potential Pollutant Sources/Site Evaluation
 - (a) Potential Pollutant Sources

Potential pollutant sources include any activity or material of sufficient quantity that may reasonably be expected to add pollutants to water in the state from the facility. The permittee shall conduct a thorough site inspection of the facility to identify all potential pollutant sources. The inspection shall encompass all land that is part of the production area and LMUs. An evaluation of potential pollutant sources shall identify the types of pollutant sources, provide a description of the pollutant sources, and indicate all measures that will be used to prevent contamination from the pollutant sources. The type of pollutant sources found at any particular site varies depending upon a number of factors, including, but not limited to: site location, historical land use, proposed facility type, and land application practices. Potential pollutant sources include, but are not limited to, the following: manure, sludge, wastewater, dust, silage stockpiles, fuel storage tanks, pesticides and inorganic fertilizers, lubricants, dead animals, feed and bedding waste, bulk cleaning chemicals, and compost.
 - (b) Soil Erosion

The permittee shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. If these areas have the potential to contribute pollutants to water in the state, the permittee shall identify in the PPP measures used to limit erosion and pollutant runoff.
 - (c) Well Protection Requirements
 - (1) The permittee must not locate or operate RCSs, holding pens, or LMUs within the following buffer zones except in accordance with paragraph (2) in this section:
 - (i) public water supply wells - 500 feet;
 - (ii) wells used exclusively for private water supply - 150 feet; or
 - (iii) wells used exclusively for agriculture irrigation - 100 feet.
 - (2) The permittee may continue the operation and use of any existing holding pens, LMUs and RCSs located within the required well buffer zones provided they are protected in accordance with the recharge feature evaluation and certification required in Part III.A.3.
 - (i) Wells drilled before July 20, 2004, and any replacement wells, must be protected in accordance with the recharge feature certification requirements in this general permit. The recharge feature certification serves as documentation authorizing

Concentrated Animal Feeding Operations General Permit No. TXG920000

variances to the buffer zone requirements for those wells. The recharge feature certification must be kept on site and made available to TCEQ personnel upon request. It is not necessary to submit a request for a variance to the buffer zone requirements for these wells to the TCEQ.

- (ii) For wells drilled on or after July 20, 2004, requests for variances to the buffer zone requirements must be submitted to the TCEQ for review and approval. The buffer variance approval letter must be kept on site and made available to TCEQ personnel upon request.
 - (3) Construction of any new water well must be done in accordance with the requirements of this general permit and 16 TAC Chapter 76, relating to Water Well Drillers and Water Well Pump Installers.
 - (4) All abandoned and deteriorated wells shall be plugged according to 16 TAC Chapter 76.104.
 - (5) The permittee shall not locate new LMUs within the required well buffer zones 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 the groundwater. Additional protective measures may include a sanitary seal, annular seal, a steel sleeve, or surface slab.
 - (6) Irrigation of wastewater directly over a well head will require a wellhead protection structure protective of the wellhead that will prevent contact from irrigated wastewater.
- (d) Control Facilities
- The PPP shall include the location and a description of control facilities. The appropriateness of any control facilities shall reflect the identified sources of pollutants at the CAFO.
- (e) 100-year Floodplain
- A site evaluation shall show that all control facilities are located outside of the 100-year floodplain or protected from inundation and damage that may occur during the 100-year flood event. Manure, sludge, or wastewater may only be applied to the areas in the 100-year floodplain at agronomic rates not to exceed the hydrologic needs of the crop.
5. Discharge Restrictions, Numeric Effluent Limitations, and Monitoring Requirements
- (a) Discharge Restrictions

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (1) The permittee must comply with all applicable reporting, sampling, and analysis requirements associated with a discharge, in accordance with this general permit.
- (2) In accordance with Part II.A. of this general permit, a discharge to surface water in the state may occur from a CAFO which is properly designed (25-year frequency 24-hour duration or no discharge for a new source swine, veal or poultry), constructed, operated and maintained under the provisions of this general permit. Manure, sludge, and wastewater generated by a CAFO shall be retained and used in an appropriate and beneficial manner as provided in this general permit.
- (3) Unless otherwise limited, manure, sludge, or wastewater may be discharged from a LMU or a RCS into or adjacent to water in the state from a CAFO authorized under this general permit resulting from any of the following conditions:
 - (i) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;
 - (ii) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
 - (iii) a discharge from a LMU that occurs because the permittee takes measures to de-water the RCS in accordance with Part III.A.10(b), relating to imminent overflow due to chronic/catastrophic rainfall.
- (4) There shall be no discharge of wastewater from the production area into surface water in the state from new source poultry, swine, or veal CAFOs. Wastewater must be contained in RCSs properly, designed, constructed, operated, and maintained according to the provisions of this general permit.

(b) Numeric Effluent Limitations for Duck CAFOs

No discharge from a duck CAFO shall exceed the following numeric effluent limitations for any discharge to surface water in the state.

Table 1: Numeric Effluent Limitations for Duck CAFOs

Parameter	¹ Daily Maximum Limitation	¹ Monthly Average Limitation	² Daily Maximum Limitation	² Monthly Average Limitation	Sample Types ⁵	Sample Frequency ³
BOD ₅	3.66	2.0	1.66	0.91	Grab	1/day
Fecal Coliform	(⁴)	(⁴)	(⁴)	(⁴)	Grab	1/day

¹Pounds per 1000 Ducks.

²Kilograms per 1000 Ducks.

³Sample shall be taken within the first 30 minutes following the initial discharge from a storm event and then once per day while discharging.

⁴Not to exceed MPN of 400 per 100 ml.

Concentrated Animal Feeding Operations General Permit No. TXG920000

⁵a sample which is taken from a waste stream on a one-time basis without consideration of the flow rate of the waste stream and without consideration of time.

(c) Monitoring Requirements for all CAFOs

The permittee shall sample all discharges to surface water in the state from RCSs and LMUs. The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab and National Environmental Laboratory Accreditation Program (NELAP) (30 TAC Chapter 25) for the following parameters:

Table 2: Monitoring Requirements for All CAFOs

Parameter	Sample Type	Sample Frequency ¹
BOD ₅	Grab	1/event
<i>Escherichia Coli (E. coli)</i>	Grab	1/event
Total Dissolved Solids (TDS)	Grab	1/event
Total Suspended Solids (TSS)	Grab	1/event
Nitrate (N)	Grab	1/event
Ammonia Nitrogen	Grab	1/event
Total Phosphorus	Grab	1/event
Pesticides ²	Grab	1/event

¹Sample shall be taken within the first 30 minutes following the initial discharge.

²Any pesticide which the permittee has reason to believe could be present in the wastewater.

(d) Analytical results from the numeric effluent limitations or monitoring requirements must be summarized, documented in the PPP, and reported according to Part IV.B.5 and 6. If the permittee is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms), the permittee must document why discharge samples could not be collected. Once dangerous conditions have passed, the permittee shall conduct the sampling and analyses required by Part III.A.5(c). 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 permittee shall collect a secondary sample from the RCS, and have it analyzed on the first business day for each parameter where the maximum hold time is exceeded.

6. Retention Control Structure (RCS) Design and Construction

(a) Certification

(1) The permittee constructing a new or modifying an existing RCS shall ensure that all design and completed construction is certified by a licensed Texas Professional Engineer prior to use. The

Concentrated Animal Feeding Operations General Permit No. TXG920000

certification shall be signed and sealed in accordance with Texas Board of Professional Engineers requirements.

- (2) Documentation of liner and capacity certifications by a licensed Texas Professional Engineer must be completed for each RCS prior to use and must be kept in the PPP.

(b) Design and Construction Standards

Each RCS, at a minimum, shall be designed and constructed in accordance with the technical standards developed by the NRCS, ASABE, American Society of Civil Engineers, or ASTM International, or other technical standards 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.

(c) RCS Drainage Area

- (1) The drainage area shall be designed and maintained to minimize entry of uncontaminated runoff into RCSs. Uncontaminated runoff not diverted must be included in the RCS design calculations.
- (2) Stormwater runoff must be diverted from contact with feedlots and holding pens, and manure or process wastewater storage systems. In cases where it is not feasible to divert stormwater runoff from the production area, the retention structures shall include adequate storage capacity for the additional stormwater runoff. Stormwater runoff includes rain falling on the roofs of facilities where the animals are contained within the production area, runoff from adjacent land, or other sources.

(3) The drainage area shall be designed and maintained to minimize ponding or puddling of water outside the RCS.

(4) A digester that is installed in the production area shall comply with the following requirements:

- (i) The permittee shall have adequate RCS capacity to maintain minimum treatment volume for odor control at all times, including when the digester is bypassed or during digester maintenance.
- (ii) The facility shall maintain the ability to bypass the digester in the event it is taken offline for maintenance or repair. If the digester is taken offline for a period lasting longer than 90 days, the Permittee shall notify the TCEQ regional office. If the digester is to be permanently discontinued, a notice of change (NOC) must be submitted for approval.
- (iii) The permittee shall use only cattle manure as feedstock and shall submit a NOC for approval prior to use of cattle manure that is generated by another AFO for digester feedstock. The use of additional feedstocks other than cattle manure is prohibited by this permit.
- (iv) The permittee shall ensure that the owner and operator of the digester obtains all necessary authorizations from the TCEQ

Concentrated Animal Feeding Operations General Permit No. TXG920000

Air Permits Division for the digester operation. Off-gasses, flares, internal combustion engines, or other emissions associated with the digester are not authorized under the CAFO air standard permit.

(v) Digestate shall be defined as manure. The permittee shall land apply the digestate in accordance with the site-specific certified nutrient management plan.

(vi) The anaerobic digester and any appurtenances such as recirculation basins and mixing pits shall be certified in accordance with 30 TAC §321.38(g)(2).

(vii) Discharges from the digester or digester appurtenances are not authorized under this permit. Any leaks or spills shall be retained on site and handled in accordance with the requirements of this GP.

(d) RCS Sizing

The operator of the CAFO shall design, construct, operate, and maintain RCSs to contain all volumes required by this section including the runoff and direct precipitation from the design rainfall event for the location of the facility. The RCS design plan must document the sources of information, assumptions and calculations used in determining the appropriate volume capacity of the RCSs. For all new construction and for all structural modifications of existing RCSs, each RCS shall be designed for the authorized number of animals and include the storage for the volumes listed below:

(1) Design Rainfall Event Runoff

(i) New source swine, veal, or poultry CAFOs subject to the new source performance standards in 30 TAC §321.38(e)(7)(B) must have a RCS designed and constructed such that no discharge occurs in accordance with the following:

(A) 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 NMP, 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.

(B) Provisions for upset/bypass, as defined in Section I of this general permit apply to a new source subject to this provision.

(C) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative

Concentrated Animal Feeding Operations General Permit No. TXG920000

defense of upset shall demonstrate, through properly signed, operating logs, or other relevant evidence that:

- a. ~~a~~An upset occurred, and that the permittee can identify the cause(s) of the upset; and
 - b. ~~F~~the permitted facility was at the time being properly operated in accordance with this general permit.
- (ii) All other CAFOs shall have a 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.
 - (iii) For all CAFOs the design rainfall event volume shall include the runoff volume from all open lot surfaces, the runoff volume from all areas between open lot surfaces that is directed into the RCSs, the volume of rainfall from any roofed area that is directed into the RCSs, and the volume of direct rainfall on the surface of the RCSs.
- (2) Manure and Process Generated Wastewater. The RCS shall be designed to contain all manure entering the RCS and process generated wastewater produced during a minimum 21-day period as well as wastewater from any cooling pond located within the drainage area of the RCS.
 - (3) Sludge. The RCS shall be designed to contain the estimated storage volume for a minimum of one year of sludge accumulation.
 - (4) Wastewater Treatment. For CAFOs authorized under the air standard permit in 30 TAC ~~Chapter §~~ 321.43 (relating to Air Standard Permit for Animal Feeding Operations (AFOs)), the RCS shall be designed to contain any additional volume required for the design and treatment specifications or other options available related to the Air Standard Permit for Animal Feeding Operations.
 - (5) Hydrologic Needs Analysis (Water Balance) for Systems Using Irrigation

The RCS shall be designed for the authorized number of animals to include any storage volume required by a water balance that documents that the typical irrigation demands of the proposed crop and irrigated land area will not be exceeded. Precipitation inputs to the water balance shall be the average monthly precipitation taken from a National Weather Service current publication. 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. The maximum required storage value calculated by the water balance shall not be maintained in the required storage volume for the design rainfall event. Wastewater application rates used in the water balance shall not induce uncontrolled runoff or create tailwater that causes a discharge. All relevant volumes accumulated during the storage

Concentrated Animal Feeding Operations General Permit No. TXG920000

period shall be considered in determining the water balance, including all of the following:

- (i) the volumes identified in Part III.A.6(d)(1) through (4);
 - (ii) the storage volume required to contain all wastewater and runoff during periods of low crop demand;
 - (iii) the evaporation volume from RCS surfaces;
 - (iv) the volume applied to crops in response to crop demand; and
 - (v) any additional storage volume required as a safety measure as determined by the RCS designer.
- (6) 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 that a catastrophic event occurs, the analysis shall replace such an event with not less than the long-term average rainfall for that month, as determined by a hydrologic needs analysis (water balance), and
 - (ii) to maintain sufficient volume to contain the volume of rainfall and rainfall runoff from the design rainfall event without overflow. The depth for this volume must be at least one vertical foot allocated within the RCS above the volume required in item (i) above.

(e) Irrigation Equipment Design

The permittee shall ensure that the irrigation system design is capable of removing wastewater from the RCS(s). RCS(s) shall be equipped with irrigation, or wastewater removal systems capable of dewatering the RCS(s) whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(f) Embankment Design and Construction

For RCSs where the depth of water impounded against the embankment at the spillway elevation is three feet or more, the RCSs are considered to be designed with an embankment. The PPP shall include a description of the design specifications for the RCS embankments. The following design specifications are required for all new construction and/or the modified portions of existing RCSs.

- (1) Soil Requirements. Soils used in the embankment shall be free of foreign material such as rocks larger than 4 inches, trash, brush, and fallen trees.
- (2) Embankment Lifts. 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% of optimum moisture content.
- (3) Stabilize Embankment Walls. All embankment walls shall be stabilized to prevent erosion or deterioration.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (4) **Compaction Testing.** Embankment construction must be accompanied by certified compaction tests including in place density and moisture in accordance with ASTM D 1556, D 2167 or D 2937 for density and D 2216, D 4643, D 4944 or D 4959 for moisture, and D 2922 or D 6938 for moisture and density, or equivalent testing standards.
 - (5) **Spillway or Equivalent Protection.** Additional protection for new or modified portions of existing RCS(s) 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 embankments.
 - (6) **Embankment Protection.** For all new construction or the modified portions of existing RCSs, each RCS must have a minimum of 2 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 2 vertical feet of freeboard between the top of the embankment and the required storage capacity.
- (g) **Liner Requirements**

For all new construction and for all structural modifications of existing RCS(s), each RCS must demonstrate the lack of hydrologic connection or a liner is required that complies with paragraph (2), (3), or (4) below.

(1) **Lack of Hydrologic Connection**

- (i) Documentation must show that there will be no significant leakage from the RCS(s); or that any leakage from the RCS(s) will not migrate to water in the state. The lack of hydrologic connection documentation shall be certified by a licensed Texas Professional Engineer or licensed Texas Professional Geoscientist and must include information on the hydraulic conductivity and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.
 - (ii) 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 permittee must, at a minimum, include maps showing groundwater flow paths, or that the leakage enters a confined environment. The permittee shall also include a written determination by an NRCS engineer, licensed Texas Professional Engineer, or licensed Texas Professional Geoscientist that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and water in the state.
- (2) **RCS Liner using In-situ Material**

Concentrated Animal Feeding Operations General Permit No. TXG920000

In-situ material is undisturbed, in-place, native soil material. In-situ materials must at least meet the minimum criteria for hydraulic conductivity and thickness as described in Part III.A.6(g)(3). Samples shall be collected and analyzed in accordance with Part III.A.6(g)(5). The calculated specific discharge through the in-situ material must meet the requirements of Part III.A.6(g)(3). This documentation must be certified by a licensed Texas Professional Engineer or licensed Texas Professional Geoscientist.

(3) Constructed or Installed Earthen Liner

(i) 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, conducted in accordance with Part III.A.6(g)(5), will provide support for the liner certification.

(ii) Liners shall be designed and constructed to have hydraulic conductivities no greater than 1×10^{-7} centimeters per second (cm/sec), with a thickness of 18 inches or greater or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1×10^{-6} cm/sec calculated using Darcy's Law with a water level at spillway depth.

(iii) Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements as listed in Part III.A.6(f)(1), (2), and (4).

(4) Geosynthetic Liners

Geosynthetic liners that meet the specific discharge standard in Part III.A.6(g)(3) 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 Texas 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 D 5888 Storage and Handling of Geosynthetic Clay liners, ASTM D 5889 Quality Control of Geosynthetic Clay Liners, and ASTM D 6102 Guide for Installation of Geosynthetic Clay Liners.

(5) Liner Sampling and Analyses of In-Situ Material or Earthen Liners

(i) The licensed Texas Professional Engineer or licensed Texas Professional Geoscientist shall use best professional practices

Concentrated Animal Feeding Operations General Permit No. TXG920000

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 D 1587 or other method approved by the Executive Director. For each RCS, a minimum of two core samples shall be collected from the bottom of the RCS and a minimum of one core sample shall be collected 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 D 5084, whole pond seepage analysis as described in ASABE Paper Number 034130, Double Ring Infiltrometer (stand pipe), or other method approved by the Executive Director.
- (6) Leak Detection System

If notified by the Executive Director that significant potential exists for the adverse impact of water in the state or drinking water from leakage of the RCS, the permittee shall install a leak detection system or monitoring well(s) in accordance with that notice. Documentation of compliance with the notification must be kept with the PPP, as well as copies of all sampling data.

7. Cooling Pond

For the purposes of this permit, cooling ponds are not RCSs. The requirements of this paragraph are not applicable to cooling ponds located outside the production area. The cooling ponds located within the drainage area of a RCS and cooling pond wastewater must be directed to and contained in a RCS or land applied in accordance with the NMP. The RCS must be designed with additional capacity to contain the cooling pond wastewater.

- (a) Cooling pond located within the production area of a CAFO shall be designed and maintained as follows:
 - (1) The bottom, entry way and exit ramps shall be constructed of concrete.
 - (2) Water removed from the cooling pond is wastewater and must be managed accordingly.
- (b) Once per calendar year, the operator shall inspect the concrete floor in the cooling pond for cracks and leaks. Cracks and leaks must be repaired prior to refilling and use.

8. Special Considerations for Existing RCSs

- (a) Proper Construction

Concentrated Animal Feeding Operations General Permit No. TXG920000

Any existing RCS that has been properly maintained without any modifications and shows no sign of structural problems or leakage is considered to be properly designed and constructed with respect to the RCS sizing, embankment design and construction, and liner requirements of this permit, 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 permit.

(b) Playas

A playa that is in use as a RCS, as allowed by Texas Water Code §26.048, and that shows no signs of leakage, is considered to satisfy all applicable design and construction requirements. Playas that meet this requirement are not subject to the five-year liner maintenance review required by Part III.A.10(g).

(c) NRCS Plans

Any RCS built in accordance with site-specific NRCS plans and specifications are considered to be in compliance with the design and capacity requirements of this permit provided: 1) the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, wastes generated, etc.) and 2) the RCS has been operated and maintained in accordance with the NRCS requirements.

9. Manure and Sludge Storage

- (a) Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability, and NRCS or equivalent standards.
- (b) Manure or sludge stored for more than 30 days must be stored within the drainage area of a RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated stormwater runoff from the storage area. All storage sites and structures located outside the drainage area shall be designated on the LMU map. Storage for more than 30 days is prohibited in the 100-year floodplain.
- (c) Temporary storage of manure or sludge shall not exceed 30 days and is allowed only in LMUs or a RCS drainage area. 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 flood event. Contaminated runoff from manure or sludge storage piles must be retained on-site.

10. RCS Operation and Maintenance

- (a) Wastewater Levels. The following requirements must be met for dewatering the RCS, unless the system is designed as an evaporation system in accordance with Part III.A.6(d)(6):

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (1) The permittee shall ensure that the required capacity in the RCS is available to contain rainfall and rainfall runoff from the design rainfall event. The permittee shall restore such capacity after each rainfall event or accumulation of manure or process generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases and irrigation will not cause runoff.
 - (2) The normal operating wastewater level in the RCS shall be maintained in accordance with 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 frequency, ~~24-hour duration~~; or no discharge for new source swine, veal or poultry) the pollution prevention plan must document the conditions that resulted in this occurrence. As soon as irrigation is allowed, the permittee shall irrigate until the water level is at or below the design rainfall level.
- (b) Imminent Overflow
- If a RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, the permittee shall take reasonable steps to irrigate wastewaters to LMUs only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from the LMU, the permittee shall collect samples from the drainage pathway at the point of discharge from the LMU and analyze the samples in accordance with Part III.A.5(c), and provide the appropriate notifications in Part IV.B.
- (c) Permanent Pond Marker
- The permittee 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 PPP, the volume required for the design rainfall event and minimum treatment volume, if necessary.
- (d) Rain Gauge
- A rain gauge capable of measuring the design rainfall event shall be kept on-site and properly maintained.
- (e) Sludge Removal
- Sludge shall be removed from the RCS 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.
- (f) Liner Protection and Maintenance
- (1) The permittee shall maintain the liner to inhibit infiltration of wastewaters.
 - (2) Liners must be protected from animals by fences or other protective devices.
 - (3) No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (4) 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.
- (5) For re-certification of an earthen liner following the repair of mechanical or structural damage, a minimum of one sample shall be collected from the repaired area and analyzed to document that the liner meets the requirements of the liner certification for that RCS prior to the damage.

(g) Documentation of Liner Maintenance

The permittee shall have a licensed Texas Professional Engineer review the liner documentation and do site evaluation every five years.

11. General Operating Requirements

- (a) Flush/Scrape Systems. CAFOs designed with flush/scrape systems shall be flushed/scraped in accordance with design criteria.
- (b) Pen Maintenance. Earthen pens shall be designed and maintained to ensure good drainage and minimize ponding.
- (c) Carcass Disposal

Carcasses shall be collected within 24 hours of death and properly disposed of within three (3) days of death in accordance with the Texas Water Code Chapter 26, Texas Health and Safety Code Chapter 361, and 30 TAC Chapter 335 (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. The collection area for carcasses shall be addressed in the potential pollutant sources section of the PPP with management practices to prevent contamination of surface or groundwater, control access, and minimize odors.

12. Land Application

(a) Nutrient Management Plan (NMP)

A permittee authorized as a Large CAFO must implement the NMP developed in accordance with the Texas NRCS Practice Standard Code 590 which has been approved by the ED. The NMP shall be updated annually to incorporate the most recent manure, sludge, wastewater, and soil analyses. The NMP shall be certified by an individual or employee of an entity identified in Part III.A.14(b) of this general permit.

(b) Terms of the Nutrient Management Plan. The terms of the NMP include the following:

- (1) Authorized animal type(s) and head count;
- (2) Land management unit (LMU) and application acreage for each LMU;

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (3) Crops (including alternative crops) identified in the NMP with their yield goals for each LMU;
- (4) The maximum application rates for nitrogen (N) and phosphorus (P) for each crop in each LMU; and
- (5) The methodology in **Appendix I** of this permit (including formulas, sources of data, protocols for making determination, etc.) and actual data that will be used to account for:
 - (i) the results of soil tests required by Parts III.A.13.(c) and (d);
 - (ii) credits for all nitrogen in the field that will be plant-available;
 - (iii) the amount of nitrogen and phosphorus in the manure and wastewater to be applied;
 - (iv) consideration of multi-year phosphorus application (for any field where nutrients are applied at a rate based on the crop phosphorus requirement, the methodology must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement);
 - (v) all other additions of plant available nitrogen and phosphorus to the field (i.e., from sources other than manure or wastewater or credits for residual nitrogen);
 - (vi) the timing and method of land application;
 - (vii) volatilization of nitrogen and mineralization of organic nitrogen;
 - (viii) ~~F~~the nitrogen and phosphorus recommendations 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 for each crop identified for each field, including any alternative crops identified; and
 - (ix) ~~F~~the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field;
- (6) Any other factors necessary to determine the amounts of nitrogen and phosphorus to be applied in accordance with this general permit.
- (c) Land Application Requirements. All permittees must manage LMUs according to the following requirements.
 - (1) Discharge of manure, sludge, or wastewater is prohibited from a LMU and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.
 - (2) Land application shall not occur when the ground is frozen or saturated or during rainfall events unless in accordance with Part III.A.10(b) of this permit.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (3) Any land application of manure, sludge, or wastewater shall not exceed the planned crop requirements. Land application rates of manure, sludge or wastewaters shall be based on the total nutrient concentration, on a dry weight basis, where applicable.
 - (4) The land application of manure, sludge, and wastewater at agronomic rates and hydrologic needs shall not be considered surface disposal and is not prohibited.
 - (5) Where manure, sludge, or wastewater is applied in accordance with a site-specific NMP that complies with Part III.A.12(a), precipitation-related runoff from LMUs is authorized as a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or an agricultural stormwater discharge for all other sources as defined in 33 U.S.C. §1362 (14).
 - (6) 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.
 - (7) A permittee introducing wastewater or chemicals to water well heads 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 30 TAC Chapter 290 (relating to Public Drinking Water), as appropriate.
 - (8) Land application at night shall only be allowed if there is no occupied residence(s) within 0.25 mile from the outer boundary of the actual area receiving manure, sludge, or wastewater application. In areas with an occupied residence within 0.25 mile from the outer boundary of the actual area receiving manure, sludge, 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 of such residences have, agreed in writing to specified nighttime applications.
- (d) Critical Phosphorus Level. A permittee shall not land apply any manure, sludge, or wastewater to the LMU except in accordance with Part III.A.14 when results of the annual soil analysis for extractable phosphorus indicate:
- (1) a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular LMU; or
 - (2) a level greater than 350 ppm of extractable phosphorus (reported as P) in Zone 1 (zero to six-inch depth) 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
 - (3) if ordered by the Executive Director to do so in order to protect the quality of waters in the state.

Concentrated Animal Feeding Operations General Permit No. TXG920000

~~(3)~~(4) For a large CAFO, a NMP that is developed in accordance with Appendix I of this GP complies with the requirements for an effective NUP.

(e) Land Application without a NMP applicable to State-Only CAFOs

Permittees that are authorized as a State-only CAFO under this general permit shall comply with the following land application requirements. Documentation for each LMU must include:

- (1) The location, description, and limitations contained in the USDA Soil Survey of the predominant soil series within the identified LMUs, and a plan to address the soil limitations;
- (2) The crop types, realistic yield goals, and rotations to be implemented on an annual basis based on the major soil series within the identified LMUs;
- (3) The procedures for calculating the application rates;
- (4) The results of the annual manure, sludge, wastewater, and soil analyses used in determining application rates;
- (5) Projected rates of application of the manure, sludge, and wastewater in accordance with the crop requirement, as well as all data indicating the nutrients that will be applied to the LMUs; and
- (6) A description of the type of equipment and method of application to be used in applying the manure, sludge, or wastewater.

(f) Buffer Requirements

(1) Surface Water in the State

Vegetative buffer strips shall be maintained in accordance with NRCS Practice Standard Code 393. The minimum buffer shall be no less than 100 feet of vegetation to be maintained between all manure, sludge, and wastewater application areas and all surface 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.

(2) Sink Holes

Manure, sludge, and wastewater may not be applied closer than 100 feet to any sinkhole. Alternatively, the permittee may substitute a 35-foot wide vegetative buffer where 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 buffer.

(3) Impaired Water Bodies

For LMUs located within 200 feet of a main stem of an impaired segment listed on the current EPA approved Clean Water Act

Concentrated Animal Feeding Operations General Permit No. TXG920000

§303(d) list of impaired water bodies, for bacteria, nutrients or pathogens, the permittee must, comply with the following requirements:

- (i) Land application must be consistent with a NMP certified in accordance with NRCS Practice Standard Code 590 using the phosphorus index rating for impaired waters. The phosphorus index rating must be calculated using the NRCS Phosphorus Assessment Tool for Texas, Agronomy Technical Note Number 15.
- (ii) The permittee shall install and maintain one of the following buffers between the land application area and the main stem of the impaired segment:
 - (A) a 200-foot vegetative buffer; or
 - (B) a 100-foot vegetative buffer and a filter strip or vegetative barrier, as defined by NRCS Practice Standard Codes 393 or 601.

13. Sampling and Testing

- (a) Initial Sampling. Before commencing application of manure, sludge or wastewater on LMUs, the permittee shall:
 - (1) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium; and
 - (2) collect and analyze at least one representative soil sample from each LMU according to the procedures in this subsection. For LMUs that have not received manure, sludge, or wastewater within the previous year, initial sampling must be completed before re-starting land application to the LMU.
- (b) Annual Sampling
 - (1) A permittee shall collect soil samples and have them analyzed for each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in this subsection. For LMUs where manure, sludge, or wastewater was not applied during the preceding year, a permittee is not required to collect and analyze soil samples. However, the annual reporting requirement in Part IV.B.1. of this general permit must be met.
 - (2) At least one representative sample of manure, sludge, and wastewater shall be collected and analyzed annually for total nitrogen, total phosphorus, and total potassium.
- (c) Soil Sampling Procedures

Sampling procedures shall employ the following accepted techniques of soil science for obtaining representative samples and analytical results.

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

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (2) Samples shall be collected by the permittee or their designee and analyzed by a soil testing laboratory annually, except when crop rotations or inclement weather require a change in the sampling time. The PPP shall contain documentation to explain the reasons for adjusting the sampling timeframe.
 - (3) Obtain one composite sample for each LMU and per uniform soil type (soils with the same characteristics and texture) within the LMU.
 - (4) Composite samples shall be comprised of 10 - 15 randomly sampled cores at a depth of zero to six (0 - 6) inches.
- (d) Soil Analysis. The permittee shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include:
- (1) nitrate reported as nitrogen in ppm;
 - (2) phosphorus (extractable, ppm) - (Mehlich III extractant and inductively coupled plasma (ICP) analysis);
 - (3) potassium (extractable, ppm);
 - (4) sodium (extractable, ppm);
 - (5) magnesium (extractable, ppm);
 - (6) calcium (extractable, ppm);
 - (7) soluble salts (ppm) /electrical conductivity (dS/m) - determined from extract of 2:1 (v/v) water/soil mixture; and
 - (8) soil water pH (soil:water, 1:2 ratio).

14. Nutrient Utilization Plan (NUP) Applicable to State-only CAFOs

CAFOs that are authorized as State-only are required to comply with this section of the GP. If the soil test for a LMU shows a phosphorus (P) level of 200 ppm or greater, a NMP, based on crop removal, certified in accordance with the NRCS Practice Standard Code 590 complies with the requirements for an effective NUP.

- (a) A permittee shall not land apply any manure, sludge, or wastewater to the LMU except in accordance with a detailed NUP when results of the annual soil analysis for extractable phosphorus indicate:
- (1) a level greater than 200 ppm of extractable phosphorus (reported as P) at a depth of zero to six (0 - 6) inches for a particular LMU; or
 - (2) a level greater than 350 ppm of extractable phosphorus (reported as P) at a depth of zero to six (0 - 6) inches 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
 - (3) if ordered by the Executive Director to do so in order to protect the quality of waters in the state.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (b) The NUP must be developed and certified by:
 - (1) an employee of the NRCS;
 - (2) a Certified Nutrient Management Specialist;
 - (3) the Texas State Soil and Water Conservation Board;
 - (4) the Texas AgriLife Extension Service;
 - (5) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas; or
 - (6) if the Executive Director determines that one of the entities listed in (1) - (5) cannot develop the plan in a timely manner, a Certified Professional Agronomist certified through the certification program of the American Society of Agronomy, a Certified Professional Soil Scientist certified through the certification program of the Soil Science Society of America, or a Texas licensed Geoscientist-Soil Scientist in Texas may develop the NUP with Executive Director approval.
- (c) The NUP must be submitted to and approved by the Executive Director prior to land application of manure, sludge, or wastewater to the affected LMU.
- (d) Land application under the terms of the NUP may resume 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 the requirements of this general permit.
- (e) Land application under an approved NUP shall not cause or contribute to a violation of water quality standards or create a nuisance.
- (f) The permittee shall ensure that the NUP, at a minimum, evaluates and addresses the following factors to assure that the beneficial use of manure, sludge, or wastewater is conducted in a manner that prevents phosphorus impacts to water quality:
 - (1) slope of the LMU (as a percentage) and distance of the land management unit from surface water in the state;
 - (2) average rainfall for the area for each month;
 - (3) the permeability of the most restrictive layer in the upper 24 inches of each LMU profile, and the available water holding capacity of the upper 24 inches of the predominant soil in each LMU;
 - (4) chemical characteristics of the waste, including total nitrogen and total phosphorus;
 - (5) recommended rates, methods, and schedules of application of manure, sludge, and wastewater for all LMUs;
 - (6) crop types, annual crop removal rate, and expected realistic yield for each crop; and

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (7) BMPs to be used to prevent phosphorus impacts to water quality, including any physical structures and vegetative filter strips.

15. Preventative Maintenance Program

(a) Facility Inspections

(1) General Requirements

- (i) The permittee shall conduct weekly inspections of the control facility and land application equipment to determine preventative maintenance or repairs that are needed. Permittees that do not use a RCS are required to conduct inspections for applicable portions of their operation according to the outlined schedule.
 - (ii) Inspections shall include visual inspections and equipment testing to uncover conditions that could cause breakdowns or failures resulting in discharge of pollutants into or adjacent to water in the state or the creation of a nuisance condition.
 - (iii) The PPP shall document the inspections and that appropriate action has been taken in response to deficiencies identified during the inspection. The record documenting significant observations and the date of the observation shall be made available during inspections and shall be retained in the PPP. A permittee that does not correct all the deficiencies within 30 days must submit to the Executive Director an explanation of the factors that prevented the correction of the deficiencies.
- (2) Daily inspections must be conducted on all water lines that are located within the drainage area of the RCS. These daily inspections should be recorded in the PPP either daily or in the weekly report.
- (3) Weekly inspections must be conducted on:
- (i) all control facilities and wastewater levels in the RCS; and
 - (ii) equipment used for land application of manure, sludge, and/or wastewater.
- (4) Monthly inspections must be conducted on:
- (i) mortality management systems, including containers, burial sites, composting facilities, incinerators; and
 - (ii) location of chemical storage and disposal, including pesticide containers.
- (5) Annual Site Inspection
- (i) 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.
 - (ii) The inspection shall include:

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (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 current conditions.

(b) Five Year Evaluation of the RCS(s)

Once every five years, any permittee 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 complete and certify a report of their findings that must be kept with the PPP.

16. Management Documentation

The following documentation shall be retained by the permittee as part of the PPP and must be submitted to the Executive Director within five business days of a written request.

(a) Spill Prevention and Recovery

- (1) The permittee shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur; materials, handling procedures, and storage shall be specified. The permittee shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a clean-up.
- (2) The permittee shall store, use, and dispose of all pesticides in accordance with label instructions.
- (3) There shall be no disposal of 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 transport of properly applied chemicals is not a violation of this general permit.

(b) Groundwater Monitoring Plan

- (1) A groundwater monitoring plan shall be implemented by a permittee if:
 - (i) a playa is used as a RCS, as allowed by Texas Water Code §26.048, or
 - (ii) if required by the Executive Director.
- (2) The groundwater monitoring plan shall specify procedures for:
 - (i) annually collecting a groundwater sample from each well that provides water for the facility;
 - (ii) having each sample analyzed for nitrate as nitrogen and chloride where a groundwater monitoring plan is required by (b)(1)(i), and for nitrate as nitrogen, total dissolved solids, and

Concentrated Animal Feeding Operations General Permit No. TXG920000

chloride, where a groundwater monitoring plan is required by (b)(1)(ii), and

- (iii) comparing the analytical results to the baseline data.
 - (3) Data from any required groundwater monitoring must be submitted to the Executive Director annually and kept on site for five years with the PPP. 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.
 - (4) The groundwater monitoring plan required by Part III.A.16(b)(1)(ii) shall be developed and certified by a licensed Texas Professional Engineer or licensed Texas Professional Geoscientist.
- (c) The permittee shall maintain a copy of the following documents in this section of the PPP, or if stored in other locations including binders, files, and electronic records, make them readily available during the course of an inspection or at the request of the Executive Director:
- (1) the recharge feature certification;
 - (2) the NMP or NUP, as applicable;
 - (3) the liner certifications or lack of hydrologic connection certification;
 - (4) any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge, or wastewater, as required by Part III.A.12.(c)(8);
 - (5) the odor control plan, if required by the Air Standard Permit;
 - (6) all employee training documentation, including dates when training occurred and, for DOPA required training, verification of the date, time of attendance, and completion of training;
 - (7) the administratively complete and technically complete notice of intent and applicable attachments;
 - (8) the written authorization issued by the Commission or Executive Director;
 - (9) all NOCs submitted to the Executive Director;
 - (10) all closure plans and post-closure documentation; and
 - (11) this general permit.

B. General Requirements

1. For any new or expanding CAFO, the permittee shall not construct any component of the production area in any stream, river, lake, wetland, or playa (except as defined by and in accordance with the Texas Water Code §26.048 - Prohibition of Discharge to a Playa from a CAFO).

Concentrated Animal Feeding Operations General Permit No. TXG920000

2. Animals confined on the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.
3. The permittee shall prevent the discharge of pesticide contaminated waters into surface water in the state. All wastes from dipping vats, pest and parasite control units, vehicle wash, disinfection stations and other facilities used for the application of potentially hazardous or toxic chemicals shall be handled and disposed of in a manner that prevents any significant pollutants from entering water in the state or creating a nuisance condition. All pesticides shall be stored, used, and disposed of in accordance with label instructions. There shall be no disposal of 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 a RCS as a result of stormwater transport of properly applied chemicals is not a violation of this general permit.
4. Composting on-site at a CAFO shall be performed in accordance with 30 TAC Chapter 332. CAFOs may compost manure and dead animals generated on-site. Pursuant to 30 TAC Chapter 332, the permittee 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 map and accounted for in the RCS design calculations.
5. CAFOs that maintain animals in pastures, must maintain crops, vegetation, forage growth, or post-harvest residues in the normal growing season, excluding the feed or water trough areas.
6. CAFOs shall be operated in such a manner as to prevent nuisance conditions of air pollution as mandated by Texas Health and Safety Code, Chapters 341 and 382.
7. The permittee shall take reasonable steps necessary to prevent adverse effects to human health or safety, or to the environment.
8. The permittee shall maintain control of the RCS(s), required LMUs, and control facilities identified on the site map submitted with the NOI. In the event the permittee loses ownership or possession of any of these areas, the permittee shall notify the Executive Director within 5 business days and file a NOC.

C. Training

1. Employee Training
 - (a) CAFO employees who are responsible for work activities relating to compliance with provisions of this general permit must be regularly trained or informed of any information pertinent to the proper operation and maintenance of the facility and land application of manure, sludge, or wastewater.
 - (b) Employee training shall address all levels of responsibility of the general components and goals of the PPP. Training shall include topics as

Concentrated Animal Feeding Operations General Permit No. TXG920000

appropriate such as land application of manure, sludge, or wastewater, proper operation and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up.

- (c) Permittees are responsible for determining the appropriate training frequency for different levels of personnel, and the PPP shall identify dates for such training.
2. Operator Training. Dairy CAFO operators shall attend and complete training developed by the Executive Director and the Texas AgriLife Extension if any portion of the production area of the CAFO is located in the following counties: Bosque, Comanche, Erath, Hamilton, Hopkins, Johnson, Rains, or Wood. The training shall consist of the following:
 - (a) an eight-hour course or its equivalent on animal waste management within 12 months of receiving initial authorization for a new CAFO; and
 - (b) at least eight additional hours of continuing animal waste management education or its equivalent for each two-year period after completing the requirements for subsection (2)(a) of this section.

D. Closure Requirements

1. The permittee shall submit a closure plan to the CAFO Permits Team, Water Quality Division, TCEQ, (MC- 150, P.O. Box 13087, Austin, Texas 78711-3087) and the appropriate TCEQ regional office within 90 days of permanently ceasing operations.
2. The closure plan shall be developed and certified by a licensed Texas Professional Engineer to meet the standards contained in the NRCS Practice Standard 360 (Closures of Waste Impoundments), and use the guidelines contained in the Texas AgriLife Extension/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 TCEQ receipt of the closure plan. 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 permittee shall maintain or renew its existing authorization and maintain compliance with the requirements of this general permit until the RCS or CAFO is properly closed.

Part IV. Recordkeeping, Reporting, and Notification Requirements

A. Recordkeeping

The permittee shall keep records on-site for a minimum of five years from the date the record was created. Upon written request, any of the records maintained to comply with this permit shall be submitted to the Executive Director within five business days of the permittee receiving the request. The permittee shall include the following in their recordkeeping:

1. Records must be updated daily to include:
 - (a) all measurable rainfall events; and

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (b) the wastewater levels in the RCS, as shown on the depth marker, shall be recorded whenever the daily rainfall exceeds 1.0 inch.
2. Records must be updated weekly to include:
- (a) the wastewater levels in the RCS shown on the depth marker; and
 - (b) records of all manure, sludge, and wastewater beneficially used by the CAFO that shows the dates, times, and location of land application or removal from the CAFO.
 - (1) For a CAFO where manure, sludge, or wastewater is applied on LMUs, such records must include the following information:
 - (i) date of manure, sludge, or wastewater application to each field;
 - (ii) location of the specific LMU and the volume or amount applied during each application event;
 - (iii) acreage of each individual crop where manure, sludge, or wastewater is applied;
 - (iv) assumptions for calculating the total amount of nitrogen and phosphorus applied per acre to each field, including the sources of nutrients other than manure, sludge, or wastewater on a dry weight basis, and the percent moisture content of the manure and sludge;
 - (v) the actual annual yield of each harvested crop, and
 - (vi) weather conditions during the land application and 24 hours before and after the land application.
 - (2) If manure, sludge, or wastewater is sold or given to other persons for off-site land application or disposal, such records must include the following information (A single pick-up truck load need not be recorded):
 - (i) date of removal from the CAFO;
 - (ii) name and address of the recipient; and
 - (iii) approximate amount, in wet tons, dry tons, or cubic yards, of manure or sludge or gallons of wastewater or slurry removed from the CAFO.
 - (3) The permittee must make the most recent nutrient analysis of the manure, sludge, and wastewater available to any hauler.
 - (4) If manure, sludge, or wastewater is being removed by a custom hauler or commercial composter then the records can be updated monthly in accordance with a normal billing cycle.
3. The permittee shall maintain a written description of mortality management practices.

Concentrated Animal Feeding Operations General Permit No. TXG920000

4. Records of weekly inspections of all control facilities and equipment used for land application of manure, sludge, and wastewater shall be updated weekly and include the date of the inspection and a description of the findings.
5. Records pertaining to land application activities must be updated annually to include:
 - (a) annual nutrient analysis for at least one representative sample of irrigation wastewater, if applicable, and one representative sample of manure and sludge for total nitrogen, total phosphorus, and total potassium;
 - (b) the annual soil analysis report; and
 - (c) the inspection report required by Part III.A.15(a)(5).
6. The inspection report as required by Part III.A.15(b), Five Year Evaluation, must be updated every five years.
7. The following records shall also be kept on-site:
 - (a) a list of any significant spills at the CAFO;
 - (b) documentation of liner maintenance as required in Part III.A.10(g);
 - (c) groundwater monitoring records, if required by Part III.A.16(b);
 - (d) RCS design and construction certification as required in Part III.A.6(a);
 - (e) embankment certification as required in Part III.A.6(f);
 - (f) liner certification as required in Part III.A.6(g); and
 - (g) a copy of current and amended site plans.

B. Reporting and Notification

1. Annual Reporting Requirement. Large CAFOs must submit an annual report with all information required in this section to the appropriate TCEQ ~~R~~egional ~~O~~ffice and the TCEQ's Office of Compliance and Enforcement, Enforcement Division (MC 224, P.O. Box 13087, Austin, Texas 78711) by March 31 of each year for the 12-month reporting period identified by the permittee. State-only CAFOs must submit items (h), (i) and (o) of this section by the same deadline. The report shall be on forms prescribed by the Executive Director to include, but not limited to:
 - (a) number and type of animals, whether in open confinement or housed under roof;
 - (b) estimated amount of total manure, sludge, and wastewater generated during the previous 12 months by the CAFO facility;
 - (c) estimated amount of total manure, sludge, and wastewater land applied to each LMU during the previous 12 months on-site at the CAFO facility;
 - (d) estimated amount of total manure, sludge, and wastewater transferred to other persons from the CAFO facility during the previous 12 months;

Concentrated Animal Feeding Operations General Permit No. TXG920000

- (e) total number of acres for land application covered by the NMP approved by the Executive Director for the CAFO and total number of those acres used in the previous 12 months for land application;
 - (f) summary of discharges of manure, sludge, or wastewater from the production area that occurred during the previous 12 months including dates, times, and approximate volume;
 - (g) a statement that the NMP, under which the CAFO is operating, was developed and certified by a certified nutrient management specialist;
 - (h) groundwater monitoring results, if required by Part III.A.16(b);
 - (i) the annual soil analysis of each sample collected from the LMUs; as required by this general permit. The analysis shall be accompanied by the reporting forms prescribed by the Executive Director;
 - (j) the actual crop(s) planted and yield(s) for each LMU;
 - (k) the actual nitrogen and phosphorus content of manure, sludge or process wastewater that was land applied;
 - (l) the results of data used in calculations and the results of calculations conducted in accordance with **Appendix I**;
 - (m) the results of any soil testing for nitrogen and phosphorus conducted during the previous 12 months;
 - (n) the amount of any supplemental fertilizer applied during the previous 12 months; and
 - (o) any other relevant information deemed necessary by the Executive Director.
2. The permittee shall notify the appropriate TCEQ regional office at least 48 hours prior to:
- (a) putting into operation any new or replacement RCS. For purposes of this general permit, "putting into operation" means the RCS commences the receipt of manure, sludge, or wastewater; and
 - (b) any new construction or modification of control facilities.
3. The permittee shall provide written notice to the appropriate TCEQ regional office as soon as the RCS cleaning is scheduled, but not less than ten business days prior to cleaning. The permittee shall also provide written verification of completion to the regional office within five business days after the cleaning is complete. This paragraph does not apply to cleaning of solid separators, settling basins, or conveyances into the RCS. 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 general permit.
4. Permittees that are not required to submit an annual report shall furnish to the appropriate TCEQ regional office and the TCEQ's Office of Compliance and Enforcement, Enforcement Division (MC 224, P.O. Box 13087, Austin,

Concentrated Animal Feeding Operations General Permit No. TXG920000

Texas 78711) on or before March 31 of each year, soil testing analysis of all soil samples collected in accordance with the requirements of this general permit. The analysis shall be accompanied by reporting forms prescribed by the Executive Director.

5. If, for any reason, there is a discharge to water in the state, the permittee shall notify the Executive Director and appropriate TCEQ regional office orally within 24 hours of becoming aware of the discharge or by the next business day and in writing within 14 business days of becoming aware of such discharge from the RCS or any component of the manure handling or land application system to the Office of Compliance and Enforcement Division (MC 224, P.O. Box 13087, Austin, Texas 78711). In addition, the permittee shall document the following information in the PPP and submit the following items to the appropriate TCEQ regional office:
 - (a) A description and cause of the discharge, including a description of the flow path to the receiving water body and an estimation of the volume discharged.
 - (b) 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.
 - (c) If caused by a precipitation event, the date of the event and the rainfall amount recorded from an on-site rain gauge.
 - (d) Results of analysis as required by Part III.A.5(c).
 - (e) Any upset which exceeds any effluent limitation in the permit.
 - (f) Corrective actions taken to cease the discharge and to prevent recurrence of the discharge.
6. The permittee shall report any noncompliance, other than B.5 above, that may endanger human health or safety, or the environment to the TCEQ. Report of such information shall be provided orally ~~or by facsimile transmission (FAX)~~ to the appropriate TCEQ regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the appropriate TCEQ regional office and the TCEQ's Enforcement Division (MC 224, P.O. Box 13087, Austin, Texas 78711) within five (5) business days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times. If the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance and to mitigate its adverse effects.

Part V. Standard Permit Conditions

- A. Authorization to discharge must be obtained prior to the construction of any new CAFO facility as stated in 30 TAC §§321.33(d) and (e). This authorization may be obtained through either this general permit or an individual permit.

Concentrated Animal Feeding Operations General Permit No. TXG920000

- B. The permittee has a duty to comply with all conditions in this general permit and 30 TAC Chapter 321; Subchapter B. Failure to comply with any condition is a violation of the general permit and the statutes under which the general permit was issued. Any violation may be grounds for enforcement action, for terminating coverage under this general permit, or for requiring a permittee to apply for and obtain an individual permit.
- C. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted discharge to maintain compliance with the permit conditions.
- D. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by the permittee to achieve compliance with the permit conditions. Proper operation and maintenance also includes adequate laboratory and process controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the permit conditions.
- E. All records, reports, drawings, and other documentation required by this general permit must be maintained for a minimum period of five years from the date of the record and either be kept on-site or made readily available for review by an authorized representative of the Commission upon request. This period may be extended at the request of the Executive Director.
- F. The permittee shall furnish any information, at the written request of the Executive Director, that is necessary to determine whether cause exists for revoking, suspending, or terminating authorization under this permit. The requested information must be provided within a reasonable time frame and in no case later than 30 days from the postmarked date of the request.
- G. The permittee shall give notice to the Executive Director before physical alterations or additions to the permitted facility if such changes would result in a violation of permit requirements.
- H. Inspection and entry shall be allowed under TWC, Chapters 26 through 28 and Texas Health and Safety Code §§ 361.032-361.033 and 361.037 and 40 Code of Federal Regulations § 122.41(i). The statement in TWC § 26.014 that Commission entry of a regulated entity shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the regulated entity, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.
- I. Standard monitoring requirements
 - 1. Samples required by this permit shall be collected and measurements taken at times and in a manner such that they are representative of the monitored discharge or activity. Samples shall be delivered to the laboratory immediately upon collection, in accordance with any applicable analytical method and required maximum holding times. Unless otherwise specified in this permit, all laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

Concentrated Animal Feeding Operations General Permit No. TXG920000

Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

2. Records of Monitoring activities must include:
 - (a) the date, time, and place of sample or measurement;
 - (b) the identity of any individual who collected the sample or made the measurement;
 - (c) the chain-of-custody procedures used to maintain sample integrity from sample collection to laboratory delivery;
 - (d) the date and time of laboratory analysis;
 - (e) the identity of the individual and laboratory who performed the analysis;
 - (f) the technique or method of analysis; and
 - (g) the results of the analysis or measurement and for wastewater the quality assurance/quality control records.
3. Chain of custody documents shall be maintained by the permittee or the person that collected the samples on behalf of the permittee and must be made available to the Executive Director upon written request within 30 days of the postmarked date of the request.
4. The permittee shall ensure that properly trained and authorized personnel monitor and sample the soil or wastewater related to any permitted activity.
- J. NOIs, NOTs, NOCs, and NMPs shall be signed in accordance with the requirements of 30 TAC §305.44(a) (relating to Signatories to Applications). ~~PPP~~~~solution~~ ~~prevention plans~~, reports, and other information requested or required by the Executive Director shall be signed in accordance with the requirements of 30 TAC ~~Chapter~~§ 305.128 (relating to Signatories to Reports).
- K. Authorization under this permit may be suspended or revoked for the reasons stated in 30 TAC Chapter 205.4 (relating to Authorizations and Notices of Intent). Notifying the TCEQ of planned changes or an anticipated noncompliance, does not stay any permit condition.
- L. This permit does not convey any property rights of any sort or any exclusive privilege.
- M. If the permittee becomes aware that he/she failed to submit any relevant facts in an NOI, or submitted incorrect information in an NOI or in any report to the Executive Director, the permittee shall promptly submit such facts or information.
- N. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Chapter 7 of the Texas Water Code for violations including but not limited to the following:
 1. violating the TWC Chapter 26 or applicable rules of the Commission or terms of this general permit;
 2. falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; and

Concentrated Animal Feeding Operations General Permit No. TXG920000

3. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.
- O. Applicants seeking authorization under this general permit and permittees that are authorized under this general permit may submit request for a temporary waiver from the electronic reporting requirements at 40 CFR Part 127. The waiver shall not exceed 5- years at the end of which the permittee shall re-apply, if needed. An approved temporary waiver is not transferable to another owner or operator.
 - P. Applicants and permittees that request and are granted temporary waiver may continue to submit NOI, NOT, and NOC forms and annual reports to TCEQ in paper format.

Concentrated Animal Feeding Operations General Permit No. TXG920000

APPENDIX I

METHODOLOGY FOR CALCULATING MAXIMUM APPLICATION RATES AND ANNUAL RECALCULATION OF APPLICATION RATES

- A. Identify the Soil Test Phosphorus (P) Level (Extremely Low, Very Low- Low, Medium, High, Very High) on the soil test analysis.

Soil Test P Rating	Soil Test P Levels (ppm*)
Extremely Low	Less than 5
Very Low - Low	5 to less than 20
Medium	20 to less than 50
High	50 to less than 100
Very High	Greater than or equal to 100

*ppm is equivalent to mg/kg of solids

- B. Update the Applicable Table 1 to Appendix I:
1. Populate the Sub Total column with the point value that corresponds to the Site Characteristic for each.
 2. Calculate the Total Index Points.
 3. Select the P Runoff Potential from the total sum of the Index Points of the Site Characteristics using the Phosphorus Index Classification Table.
- C. Determine which of the tables (TABLE 2A or TABLE 2B) of Table 2 to Appendix I on the following page is appropriate to use. Each table describes the criteria for its use.
- D. Determine which application rate column is appropriate using the following criteria:
1. Use the Maximum TMDL Annual P Rate if this LMU is located in a segment with an approved TMDL and TMDL Implementation Plan (TMDL I-Plan).
 2. Use Maximum Annual P Application if this LMU is not located in a segment with an approved TMDL and TMDL I-Plan, and you wish to apply annually.
 3. Use Maximum Biennial Application Rate if this LMU is not located in a segment with an approved TMDL and TMDL I-Plan, and you wish to apply biennially.
- E. Determine the Maximum Application Rate using the table identified in Step C, the column identified in Step D, and the P Runoff Potential identified in Step B.3.
- F. Using one of the approved crops and yield goals approved for each LMU, determine the maximum application rate (in Lbs/Ac) for that crop and yield goal and the Maximum Application Rate identified in Step E from the S-Crops Table, site-specific historic yield data, or other sources as approved by the Executive Director.
1. Example 1: If the Maximum Application Rate in Step 5 is “1.5 Times Annual Crop P Requirement,” find the number identified on the S-Crops Table under the column “Crop P₂O₅ requirement” for your crop/yield goal, then multiply that number by 1.5 to determine your maximum application rate (in Lbs/Ac P₂O₅).
 2. Example 2: If the Maximum Application Rate in Step 5 is “0.5 Times Annual Crop P Removal,” find the number identified on the S-Crops Table under the column “Crop P₂O₅ Removal Rate” for your crop/yield goal, then multiply that number by 0.5 to determine your maximum application rate (in Lbs/Ac P₂O₅).

Concentrated Animal Feeding Operations General Permit No. TXG920000

TABLE 1 TO APPENDIX I: PHOSPHORUS INDEX WORKSHEET FOR **EAST TEXAS** FROM
NRCS PRACTICE STANDARD 590

Client Name: _____		Field(s): _____			Date: _____	
Planner: _____		Location: _____			Crop: _____	
Impaired Watershed (Y or N): _____		Runoff Curve No.: _____			% Slope: _____	
Site Characteristic (Weighting Factor)	[Weighting Factor Times the Column Factor]					Sub Total
	0	1	2	4	8	
Soil Test P Rating (1.00)	N/A	Very Low - Low	Moderate	High	Very High	
	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Fertilizer Phosphorus (P ₂ O ₅) Application Rate (0.75)	None Applied	1- 40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Organic Phosphorus (P ₂ O ₅) Application Rate (0.75)	None Applied	1-40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Phosphorus Fertilizer Application Method and Timing (0.50)	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1 - 2/15	Surface applied 2/16 - 4/15 or 6/6 - 11/30	Surface applied 4/16 - 6/15	
	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
*Organic Phosphorus Source Application Method and Timing (0.50)	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1 - 2/15	Surface applied 2/16 - 4/15 or 6/6 - 11/30	Surface applied 4/16 - 6/15	
	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Proximity of nearest field edge to named stream or lake (1.25)	> 2000 feet	1000 - 1999 feet	500 - 999 feet	100 - 499 feet	< 100 feet	
	[0]	[1.25]	[2.5]	[5.0]	[10.0]	
Runoff Class (Runoff Class Table 3) (1.00)	Negligible	Low	Moderate	High	Very High	
	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Soil Erosion (All Sources) (1.50)	Very Low <1 t/ac	Low 1-3 t/ac	Medium 3-5 t/ac	High 5-10 t/ac	Very High >10 t/ac	
	[0]	[1.5]	[3.0]	[6.0]	[12.0]	
Total Index Points:						

Note

*If using effluent with less than 2% solids (applied through a center pivot), the Organic Phosphorus Source Application and Timing, would be considered equivalent to “Placed deeper than 2 inches or broadcast and incorporated with 48 hours”. If using effluent with 2% or more solids, not followed up with clear irrigation water, or not diluted to less than 2% solids, the Organic Phosphorus Source Application and Timing, would be considered as any other non-incorporated surface application.

Concentrated Animal Feeding Operations General Permit No. TXG920000

Phosphorus Index Classification - East Texas

Index Points	P Runoff Potential	Non-Impaired Critical P Level (ppm)	Impaired Critical P Level (ppm)
< 12	Very Low - Low	500	300
12 - 22.75	Medium	400	250
23 - 32	High	300	200
> 32	Very High	200	200

Concentrated Animal Feeding Operations General Permit No. TXG920000

**TABLE 1 TO APPENDIX I: PHOSPHORUS INDEX WORKSHEET FOR WEST TEXAS FROM
NRCS PRACTICE STANDARD 590**

Client Name: _____		Field(s): _____			Date: _____	
Planner: _____		Location: _____			Crop: _____	
Impaired Watershed (Y or N): _____		Runoff Curve No.: _____			% Slope: _____	
Site Characteristic (Weighting Factor)	[Weighting Factor Times the Column Factor]					Sub Total
	0	1	2	4	8	
Soil Test P Rating (1.00)	N/A	Very Low - Low	Moderate	High	Very High	
	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Fertilizer Phosphorus (P ₂ O ₅) Application Rate (0.75)	None Applied	1-40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Organic Phosphorus (P ₂ O ₅) Application Rate (0.75)	None Applied	1-40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Phosphorus Fertilizer Application Method and Timing (0.50)	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Incorporated immediately before planting	Incorporated >4 months before planting, or surface applied <4 months before planting	Surface applied >4 months before planting	
	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
*Organic Phosphorus Source Application Method and Timing (0.50)	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Incorporated immediately before planting	Incorporated >4 months before planting, or surface applied <4 months before planting	Surface applied >4 months before planting	
	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Proximity of nearest field edge to named stream or lake (1.25)	> 2000 feet	1000 - 1999 feet	500 - 999 feet	100 - 499 feet	< 100 feet	
	[0]	[1.25]	[2.5]	[5.0]	[10.0]	
Runoff Class (Runoff Class Table 3) (1.00)	Negligible	Low	Moderate	High	Very High	
	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Soil Erosion (All Sources) (1.50)	Very Low <1 t/ac	Low 1-3 t/ac	Medium 3-5 t/ac	High 5-10 t/ac	Very High >10 t/ac	
	[0]	[1.5]	[3.0]	[6.0]	[12.0]	
Total Index Points:						

Note

*If using effluent with less than 2% solids (applied through a center pivot), the Organic Phosphorus Source Application and Timing, would be considered equivalent to “Placed deeper than 2 inches or broadcast and incorporated with 48 hours”. If using effluent with 2% or more solids, not followed up with clear irrigation water, or not diluted to less than 2% solids, the Organic Phosphorus Source Application and Timing, would be considered as any other non-incorporated surface application.

Concentrated Animal Feeding Operations General Permit No. TXG920000

Phosphorus Index Classification - West Texas

Index Points	P Runoff Potential	Non-Impaired Critical P Level (ppm)	Impaired Critical P Level (ppm)
< 15	Very Low - Low	500	300
15 - 24.75	Medium	400	250
25 - 35	High	300	200
> 35	Very High	200	200

Concentrated Animal Feeding Operations General Permit No. TXG920000

TABLE 2 TO APPENDIX I: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590 -
Table 2A

Commercial fertilizers must be applied in accordance with SWFTL* recommendations. Application of all organic soil amendments must not exceed the values in Table 2A or 2B below.

TABLE 2A: A Nutrient Management Plan (NMP)¹ is required where any organic soil amendments are applied where Soil Test P Level is less than 200 ppm statewide or, less than 350 ppm in arid areas² with distance to a named stream greater than one mile.

P - Index Rating	Maximum TMDL Annual Application Rate	Maximum Annual P Application Rate	Maximum Biennial Application Rate
Very Low, Low	Annual Crop Nitrogen (N) Requirement	1.0 Times Annual Crop N Requirement	2.0 Times Annual Crop N Requirement
Medium	2.0 Times Annual Crop P Requirement ³	2.0 Times Annual Crop P Requirement ³	2.0 Times Annual Crop N Requirement
High	1.5 Times Annual Crop P Requirement ³	1.5 Times Annual Crop P Requirement ³	Double the Maximum Annual P Application Not to Exceed 2.0 Times the Annual Crop N Requirement
Very High	1.0 Times Annual Crop P Requirement ³	1.0 Times Annual Crop P Requirement ³	Double the Maximum Annual P Application Not to Exceed 2.0 Times the Annual Crop N Requirement

Footnotes

¹ NMP and NUP designations are consistent with 30 TAC §321.40.

² All counties must use the 200 ppm P level limit to determine whether to use Table 2A or Table 2B. However, in counties receiving less than 25 inches of annual rainfall, the 350 ppm P level limit applies if the field application area is greater than 1 mile from a named stream or lake. See map in current Texas Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, for county rainfall designations.

³ Not to exceed the annual nitrogen requirement rate.

SWFTL* - Texas A&M AgriLife Extension Soil, Water and Forage Testing Laboratory.

Concentrated Animal Feeding Operations General Permit No. TXG920000

TABLE 2 TO APPENDIX I: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590 – Table 2B

TABLE 2B: A Nutrient Utilization Plan (NUP)¹ is required where Soil Test P Level is: equal to or greater than 200 ppm in non-arid areas², or equal to or greater than 350 ppm in arid areas² with distance to a named stream greater than one mile and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, or equal to or greater than 200 ppm in arid areas² with distance to a named stream less than one mile.

P - Index Rating	Maximum TMDL Annual P Application Rate	Maximum Annual P Application Rate	Maximum Biennial Application Rate
Very Low, Low	1.0 Times Annual Crop P Removal ⁴	Annual Crop N Removal	2.0 Times Crop N Removal
Medium	1.0 Times Annual Crop P Removal ⁴	1.5 Times Annual Crop P Removal ⁴	Double the Maximum Annual P Application Not to Exceed 2.0 Times the Annual Crop N Removal
High	1.0 Times Annual Crop P Removal ⁴	1.0 Times Annual Crop P Removal ⁴	Double the Maximum Annual P Application Not to Exceed 2.0 Times the Annual Crop N Removal
Very High	0.5 Times Annual Crop P Removal ⁴	0.5 Times Annual Crop P Removal ⁴	Double the Maximum Annual P Application Not to Exceed 2.0 Times the Annual Crop N Removal

Footnotes

¹ NMP and NUP designations are consistent with 30 TAC §321.40.

² All counties must use the 200 ppm P level limit to determine whether to use Table 2A or Table 2B. However, in counties receiving less than 25 inches of annual rainfall, the 350 ppm P level limit applies if the field application area is greater than 1 mile from a named stream or lake. See map in current Texas Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, for county rainfall designations.

³ Not to exceed the annual nitrogen requirement rate.

⁴ Not to exceed the annual nitrogen removal rate.

Concentrated Animal Feeding Operations General Permit No. TXG920000

APPENDIX II

AFO/CAFO Permit Flowchart

