



Technical Information Packet

for

Concentrated Animal Feeding Operations (CAFOs)

Facility Name _____

Facility TCEQ Water Quality Number (if assigned) _____

Date Prepared _____

II. RETENTION CONTROL STRUCTURE DESIGN

A. Design Summary

Design Standards, Characteristic and Values Sources used

- NRCS
- ASAE
- Other _____

Total Number of Animals: _____ Open Lot _____ Building	
Hours per Day: _____ Open Lot _____ Building	
Average Liveweight, lbs/hd	
Volatile Solids removed by separator system	
Volatile Solids Loading Rate lbs/day • 1000 ft ³	
Spilled Drinking water, gal/day	
Water for Clean up, gal/day	
Water for Manure Removal, gal/day	
Recycled Wastewater, gal/day	

B. Wastewater Runoff. Design rainfall event _____ inches

- 25 year, 24 hour SPAW
 25 year, 10 day Other _____

Drainage Area Number _____

	DRAINAGE AREA (ACRES)	SCS CURVE NUMBER	RUNOFF DEPTH (INCHES)	RUNOFF VOLUME (ACRE-FEET)
Open Lots/Pens				
Other Area Between Pens And Control Structures (specify ground cover type)				
Roof Area Runoff Flowing Into Control Structure		100		
Surface Area Of Control Structure		100		
Totals				

Drainage Area Number _____

	DRAINAGE AREA (ACRES)	SCS CURVE NUMBER	RUNOFF DEPTH (INCHES)	RUNOFF VOLUME (ACRE-FEET)
Open Lots/Pens				
Other Area Between Pens And Control Structures (specify ground cover type)				
Roof Area Runoff Flowing Into Control Structure		100		
Surface Area Of Control Structure		100		
Totals				

Facility Name _____

C. RCS Volume Allocations.

Volume Allocations for RCSs (Acre-feet)							
RCS #	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge Accumulation	Water Balance	Required Capacity without Freeboard	Actual Capacity without Freeboard

Please indicate which RCSs are in-series

D. RCS Hydrologic Connection.

RCS No.	Construction Date	Type of Hydrologic Connection Certification

E. Playa Lakes.
 Are any playa lakes used for RCSs? YES NO

Type of Irrigation Equipment:

Center Pivot System

Wheel Roll

Walking Big Gun

Flood Irrigation

Stationary Big Gun

Other _____

Dewatering capability (gal/min)_____

Will land applied solids be incorporated? Yes No

Method of incorporation?_____

Duration between application and incorporation?_____

C. Floodplain Information.

Is any part of the production area within a 100-year floodplain? Yes No

If YES, describe management practices to protect the sites.

Is land application or temporary storage of solids in a 100-year floodplain or near a water course? Yes No

If YES, describe management practices.

D. Soil Limitations:

Soil Types	Limiting Characteristics	Best Management Practice

IV. ATTACHMENTS

- A. Maps
 - 1. Site map
 - 2. Land Management Unit map
 - 3. Vicinity map
 - 4. Original United States Geological Survey 7.5 minute quadrangle map
 - 5. 100 year floodplain map
 - 6. Runoff Control map
 - 7. Natural Resource Conservation Service (NRCS) Soil Survey Map

- B. Adjacent landowner list & map

- C. Professional Certifications
 - 1. Recharge Feature Certification Statement and Supporting Documents
 - 2. RCS Design Calculations (Water Nutr, Animal Waste Management (AWM), or equivalent)
 - 3. RCS Constructed Capacity (if constructed)
 - 4. RCS Hydrologic Connection Certifications (if constructed)

- D. Land Application
 - 1. Nutrient Management Plan
 - 2. Nutrient Utilization Plan (NUP) (if required) If the NUP is already approved, include the approval letter.
 - 3. Contract Hauler Agreement (if required)
 - 4. Copy of Previous Year's Annual Soil Sampling Analyses

- E. Pollution Prevention Plan signature page

- F. Air Standard Permit Documentation (if required)
 - 1. Air Standard Permit Summary
 - 2. Area Land Use map
 - 3. Odor control plan
 - 4. Written consent letters

- G. Groundwater Monitoring (if required)
 - 1. Groundwater Monitoring Plan
 - 2. Groundwater Monitoring analyses

ADJACENT LANDOWNERS LIST

Name _____
Number on Map _____
Address _____
Address _____

Name _____
Number on Map _____
Address _____
Address _____

Name _____
Number on Map _____
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Name _____
Number on Map _____
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Address _____

Please identify where you obtained the landowner information.

POLLUTION PREVENTION PLAN SIGNATURE PAGE

- The permittee shall document to the pollution prevention plan, as soon as possible, any planned physical alterations or additions to the permitted facility. The permittee must insure that any change or facility expansion will not result in a discharge in violation of the provisions of the Individual Permit or will require an amendment to the existing permit in force at the time of modification. The person(s) authorized to do this is:

Name: _____ Name: _____
Address: _____ Address: _____
City: _____ City: _____
State: _____ ZIP: _____ - State: _____ ZIP: _____ -
Telephone: _____ Telephone: _____

Name: _____ Name: _____
Address: _____ Address: _____
City: _____ City: _____
State: _____ ZIP: _____ - State: _____ ZIP: _____ -
Telephone: _____ Telephone: _____

- The plan must be signed by the operator or other signatory authority and retained on-site.

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

Authorized Signature: _____ Title: _____

RECHARGE FEATURE CERTIFICATION STATEMENT

I certify that potential recharge features, as defined in 30 Texas Administrative Code 321, Subchapter B, EXIST DO NOT EXIST on properties utilized in this application. All information presented on this page and the attached supporting documents is true and accurate to the best of my knowledge.

Certification Signature_____

Seal and Date

Facility Name_____

AIR STANDARD PERMIT SUMMARY

- A. Buffer Distances- the distance between permanent odor sources and any occupied residence or business structure, school (including associated recreational areas), place of worship, or public park.

Radius (mile)	Number of Occupied Structures
0 - 1/4	
1/4 - 1/2	
1/2 - 1	

- B. Air Standard Permit Requirements- Use the following table to determine requirements based on the minimum buffer distance. Indicate the AFO status and Option by placing a checkmark in the corresponding gray area.

AFO Status and Proposed Action		Option 1*		Option 2*
Construction of an AFO which started or plans to start operations after August 19, 1998		1/2 mile buffer		1/4 mile buffer and an odor control plan
Expansion of an AFO which started operations after August 19, 1998.		1/2 mile buffer		1/4 mile buffer and an odor control plan
Continued Operation of an AFO which was in operation on or before August 19, 1998.		1/4 mile buffer		odor control plan
Expansion or modification of an AFO which was in operation on or before August 19, 1998.		1/4 mile buffer		odor control plan

*A written letter of consent from an affected landowner may be used in lieu of meeting the buffer distances specified.

Facility Name _____
 TCEQ-00760 (11/1/04)

Instructions for Technical Information Packet

Section I.

- A. Indicate all potential pollutant sources found on the facility.
- B. For each potential pollutant source identified, describe the best management practices used by the facility to reduce the potential impact of the pollutant on the environment.

Section II.

- A. Identify the design standard used to calculate the required size of the control facilities. Information for completing the table will be found in the design calculations provided by a licensed Texas Professional Engineer.
- B. Provide the design rainfall event volume, in inches, based on the location of the facility, animal type, and margin of safety (if required). Identify the source of the design rainfall event.

For each drainage area, provide the number of acres, Soil Conservation Service (SCS) Curve number, runoff depth and volume for each location. Attach additional pages if there are more than two drainage areas.

SCS Curve Numbers may be obtained from USDA-NRCS Technical Release 55; Typical Values for open lots: paved - CN = 95 and unpaved - CN = 90.

Calculate Runoff Depth using the following equations:

$$S = (1000 \div \text{CN}) - 10$$
$$Q = (P - 0.2 * S)^2 \div (P + 0.8 * S)$$

where CN = SCS Curve Number

P = 25-year/24-hour, 25-year/10-day, or 100-year/24-hour rainfall event (inches)

S = potential maximum retention after runoff begins (inches)

Q = runoff (inches)

Runoff Volume (acre-feet) = Drainage Area (acres) * Runoff Depth (inches) * (1 ft/12 inches)

- C. Provide the volume allocations for each Retention Control Structure (RCS). This table is a summary of the specific volumes allocated to the sources of inputs to the RCS system. Information to complete this table will be found in the design calculations provided by a licensed Texas Professional Engineer.

Identify which RCSs act in-series (i.e. an RCS that has a natural or artificial method of overflowing into another RCS).

- D. For each RCS, provide the date constructed and the type of hydrologic connection certification (i.e. liner certification or certification that no hydrologic connection exists).
- E. Indicate if playa lakes are used for RCSs.

Section III.

- A. Provide the method used to manage wastewater, sludge, and solids. If land application is used, indicate the location of the land application areas (ie. On-site or off-site). Off-site is considered to be land that is owned, operated, controlled, rented or leased by the applicant which is detached from the production area. If composting is used, indicate the location of the compost facility.
- B. Provide the acreage, crop, yield goal, and estimated application rate for each land management unit (LMU).

Provide the estimated amount of manure, litter and wastewater produced, land applied and transferred annually to other persons, including third-party fields. These values should be taken from the RCS design calculations and Nutrient Management Plan.

Indicate the type of irrigation equipment used for land application of wastewater.

Indicate if land applied manure will be incorporated, the method of incorporation (i.e. plowed under, disced, etc), and the duration between application and incorporation.

- C. Indicate if part of the production area is located in a 100 year floodplain. If yes, describe the best management practices used to protect the site from inundation and provide certification by a licensed Texas Professional Engineer that the facility is protected from inundation during a 100 year flood.

Indicate if land application or temporary storage of solids is located in a 100 year floodplain or near a water course. If yes, describe the best management practices used to minimize an impact to water in the state.

- D. For each soil type that has limitations to land application of manure, litter or wastewater, provide the name of the soil type, the characteristics of those soils that may limit land application of manure, litter or wastewater, and the best management practice used to mitigate the limitation. Limiting characteristics include, but are not limited to, texture, permeability, depth to high water table, ponding, slope, depth to bedrock, depth to cemented pan, sodium adsorption ratio, flooding, stoniness, and soil pH. For more information on soil limitations, consult the NRCS National Soil Survey Handbook, Part 620.
- E. For each on-site well, provide an identification number and the type of well (drinking water, irrigation water, oil, etc.). Indicate if the well is producing/non-producing, open/cased/plugged, and the best management practice used to minimize impacts to groundwater.

Section IV.

The following items must be attached to the Technical Information Packet prior to submittal to the TCEQ.

- A. Maps
1. Site map. This map must show the layout of the production area and the location of all wells, water in the state, and required buffer zones in the production area.
 2. Land Management Unit map. This map must show the location of all LMUs in relation to the production area. Identify the location of all wells, water in the state,

and required buffer zones in the LMUs. Indicate the LMU number and the number of acres available for land application in each LMU.

3. Vicinity map. This map must be a general highway map that shows the location of the CAFO in relation to the nearest town or to the nearest intersection of two major (non-county) roads. All roads should be labeled.
 4. Original United States Geological Survey 7.5 minute Quadrangle map. This map must show the location of the production area and LMUs in relation to topographic features within 1 mile of the property boundary.
 5. 100 year floodplain map. This is a Federal Emergency Management Agency (FEMA) map which shows the extent of a 100 year flood in relation to the production area. If a FEMA map is not available, a licensed Professional Engineer may be required to certify that the production area is not located in or is protected from a 100 year flood.
 6. Runoff Control map. This map must show the direction of runoff flow in the production area. The runoff flow may be shown in conjunction with the site map.
 7. Natural Resource Conservation Service Soil Survey Map. This map must show the location of the production area and LMUs in relation to the soil types located on the facility. This map may be included as part of the Recharge Feature Certification supporting documents.
- B. Adjacent Landowner list and map. Use the Adjacent Landowner List to provide the name and address of each landowner within 500 feet of the property boundary, including onsite and offsite LMUs. The adjacent landowner map must show the property boundary of the permitted facility, including onsite and offsite LMUs, and the location of each separate tract within 500 feet of the property boundary. Each landowner should be designated by a letter or number on both the list and the map.

Please identify where you obtained the landowner information.

- C. Professional Certifications. The Recharge Feature Certification Statement, RCS Design Calculations, RCS constructed capacity, and RCS hydrologic connection certifications must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist, in accordance with the 30 TAC 321, Subchapter B.
- D. Land Application.
1. Nutrient Management Plan (NMP). A NMP is a NRCS Practice Standard Code 590. A NMP must be developed and certified by a Certified Nutrient Management Specialist or other approved person as listed in 30 TAC 321, Subchapter B. This plan must be developed using the NRCS 590 software.
 2. Nutrient Utilization Plan (NUP). A NUP is a NRCS Practice Standard Code 590 based on crop removal. It is required when the soil phosphorus level exceeds 200 ppm phosphorus in zone 1 of an LMU. If a NUP has already been approved by the TCEQ, attach the approval letter only. A NUP must be developed and certified by a Certified Nutrient Management Specialist or other approved person as listed in 30 TAC 321, Subchapter B. This plan must be developed using the NRCS 590 software.
 3. Contract Hauler Agreement. If manure, litter or wastewater is transferred to other persons, submit a contract hauler agreement or a waste transporter agreement, if in the major sole source impairment zone. These forms may be obtained by contacting

the Land Application Team at 512-239-4671.

4. Provide a copy of the previous year's annual soil sampling analyses for each LMU.
- E. Pollution Prevention Plan (PPP) signature page. Provide the signed PPP signature page located in the existing PPP. An PPP signature page is provided for use by proposed CAFOs or if the existing signature page cannot be located.
- F. Air Standard Permit Documentation. This attachment is only required if you are requesting air authorization under the Air Standard Permit. To determine if you qualify for the Air Standard Permit, refer to 30 TAC 321.43.
1. Air Standard Permit Summary page. Indicate the total number of occupied structures within the given distance to the permanent odor sources located on the CAFO.

Complete the table by placing one check mark in the shaded column to indicate the AFO status, then placing one check mark to indicate which Option the AFO will use to meet the requirements of the Air Standard Permit.
 2. Area Land Use map. A map that identifies property lines, permanent odor sources, and distances and direction to any occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park within a one mile radius of the permanent odor sources at the AFO. The map must include a north arrow, scale of map, buffer zones, and the date the map was generated and the date the distances were verified.
 3. Odor Control Plan. This plan identifies best management practices used by the CAFO to minimize odors and nuisance conditions. It is only required if you choose a buffer option that includes an odor control plan.
 4. Written Consent Letters. These letters may be used in lieu of the buffer requirements, in accordance with 30 TAC 321.43.
- G. Groundwater Monitoring. If groundwater monitoring is required in the existing authorization, attach the groundwater monitoring plan and the previous year's groundwater sampling analyses.