The Texas Commission on Environmental Quality (commission or TCEQ) adopts amendments to §§321.31 - 321.47. The commission also adopts the repeal of §321.48 and §321.49. Sections 321.31 - 321.34, 321.36, and 321.38 - 321.47 are adopted *with changes* to the proposed text as published in the March 12, 2004 issue of the *Texas Register* (29 TexReg 2550). The amended §321.35 and §321.37 and the repeal of §321.48 and §321.49 are adopted *without changes* and will not be republished.

The primary purpose of the adopted amendments is to implement the new federal Concentrated Animal Feeding Operation (CAFO) Regulations and Effluent Guidelines and reauthorize Subchapter B to implement the National Pollutant Discharge Elimination System (NPDES) CAFO Program under the Texas Memorandum of Agreement (MOA) with the United States Environmental Protection Agency (EPA) regarding delegation of the federal NPDES program. In addition, the adopted rules will address air and water quality issues and serve to improve air and water quality conditions statewide including within major sole-source impairment zones.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

The commission adopted this subchapter for NPDES purposes and to make the Texas rules consistent with federal regulations. The rules became effective on September 18, 1999. The commission adopted the current version of the subchapter on March 6, 2002, to implement the requirements of House Bill 2912, 77th Legislature, 2001, regarding permitting requirements for CAFOs located in major sole-source impairment zones (i.e., Bosque River Watershed) and the protection of sole-source drinking water supplies. The EPA adopted changes to the federal CAFO regulations and effluent guidelines that became effective on April 13, 2003, changing the requirements to operate CAFOs under the Clean

Water Act. Specifically, the new federal regulations changed which animal feeding operations (AFOs) were defined as CAFOs and what management practices are required for those operations. The effluent guidelines changed the design standards for new source swine, veal, and poultry operations and added a requirement for nutrient management plans (NMPs).

The EPA recognized in the NPDES delegation MOA with TCEQ that Subchapter B is the authority for the Texas Pollutant Discharge Elimination System (TPDES) CAFO program. The MOA requires that TCEQ adopt federal regulation changes into its state regulations and requirements. In general, the adopted amendments: 1) reorganize and streamline the rules by grouping similar requirements together; 2) maintain most of the existing requirements; 3) delete the option of authorization by registration; 4) identify who among CAFOs is required to obtain an individual permit or general permit; 5) add new federal requirements; 6) specify certain procedures and requirements for dairy CAFOs located in major sole-source impairment zones; 7) update requirements for an air quality standard permit; and 8) clearly state the existing requirements for AFOs that are not defined or designated as CAFOs. The adopted changes will improve the overall readability of the adopted rules. Therefore, amendments to the subchapter are necessary to establish the requirements that will allow TCEQ to continue to authorize CAFOs. General and individual permits, along with permits by rule for certain AFOs, meet all state and federal requirements.

The adopted amendments to Subchapter B will also continue to allow an AFO to obtain an air quality standard permit through the procedures identified in this amended subchapter and do not preclude an AFO from obtaining an air quality standard permit. This standard permit will satisfy the Texas Clean

Air Act requirements so that other air quality authorization will not be necessary. The air quality requirements of this subchapter reflect the application of best available control technology (BACT) for AFOs, and address the protection of air quality through the implementation of good management practices. If an operator cannot meet the requirements of a permit by rule in 30 TAC Chapter 106, Permits by Rule, or satisfy the air quality criteria of this amended subchapter, then the operator must obtain an individual air quality authorization under 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification. If the AFO constitutes a major source or major modification as defined in Chapter 116, then an individual air quality permit is required.

The commission took into consideration the following state and federal actions in adopting these amendments to Subchapter B: 1) changes to the federal NPDES CAFO Regulations adopted February 13, 2003 under 40 Code of Federal Regulations (CFR), Parts 122 and 412, effective April 13, 2003; 2) EPA Region VI General Permit for CAFOs (March, 1993), which establishes the currently effective technical and procedural requirements for CAFOs necessary to maintain federal authorization to discharge under the NPDES program; 3) former Texas Water Code (TWC), §26.040, under which Subchapter B was originally adopted and which directed that the commission may by rule regulate and set requirements and conditions for discharges of waste whenever the commission determines that requiring individual permits is unnecessarily burdensome both to the waste discharger and to the commission; 4) TWC, §26.040, which allows the commission to authorize the discharge of wastewaters through the issuance of general permits. This statute further specifies that all current rules adopted by the commission under §26.040 as it read prior to the effective date of the statute remain in effect, as they may be amended by the commission from time to time as appropriate, and provides that the

commission's authority for subsequent amendments or modifications is not affected by the changes made to the statute; 5) Texas Health and Safety Code, Chapter 382, to authorize an air standard permit authorization for AFOs to protect air quality; and 6) NPDES MOA between the TCEQ and EPA Region VI (September 14, 1998), which establishes policies, responsibilities, and program commitments to allow for continued assumption of the NPDES program by the TCEQ.

SECTION BY SECTION DISCUSSION

Adopted §321.31 changes the title of the section from "Waste and Wastewater Discharge and Air Emission Limitations" to "Manure, Litter, and Wastewater Discharge and Air Emission Limitations." The adopted amendment keeps the prohibition that there shall be no discharge or disposal of manure, litter, or wastewater from an AFO into or adjacent to waters in the state except in accordance with an individual or general permit or other authorization issued or adopted by the commission. The adopted change to this section moves the effluent guideline requirements from this section into adopted §321.37 titled "Effluent Limitations."

The title of §321.32, "Definitions," will remain the same. Many of the definitions remain without change or with slight modifications to enhance understanding and readability. The adopted amendment to §321.32 adds new definitions for area land use map under paragraph (5); beneficial use under paragraph (6); catastrophic conditions under paragraph (8), to distinguish those catastrophic conditions not associated with rainfall; certified nutrient management specialist under paragraph (9), modified in response to comments, to add the phrase "in Texas" to clarify that the only organization recognized is in Texas; certified water quality management plan under paragraph (11); comprehensive nutrient

management plan (CNMP) under paragraph (12), modified in response to comments, to add the acronym and reflect that the plan must be implemented to achieve the benefits expected; large, medium, small, and state only CAFO under paragraph (13); crop removal under paragraph (15), modified to refer to proposed crop instead of previous year; crop requirement under paragraph (16); land management unit (LMU) under paragraph (25); letter of consent under paragraph (26); liquid waste handling system under paragraph (28), modified in response to comments, to reflect that this term defines a system that is used for transporting and land applying waste not recycling; manure under paragraph (30); new source under paragraph (31); NMP under paragraph (33); nutrient utilization plan (NUP) under paragraph (34), modified in response to comments, to add the word "Code"; 100-year, 24-hour rainfall event under paragraph (35); 100-year floodplain under paragraph (36), modified to reflect the definition in 30 TAC Chapter 309; playa under paragraph (42); production area under paragraph (44); significant CAFO expansion under paragraph (48), modified in response to comments, to add the phrase "by more than 50%" to specify the amount and time frame in which these changes occur; sludge under paragraph (49), modified in response to comments, to replace liquid with slurry to more accurately reflect what constitutes sludge; soil plant air water (SPAW) field pond hydrology under paragraph (50); technical service provider under paragraph (52); and 25-year, ten-day rainfall event under paragraph (53), modified in response to comments to indicate the correct reference material. These definitions are common terms used in the adopted amendments to this subchapter. The following terms are no longer used in the adopted amendments, and therefore, have been deleted from this section: animal unit; CAFO general permit; flushwater handling system; new CAFO; no discharge; process wastewater; and qualified groundwater scientist. Additionally, land application under paragraph (24) was modified to clarify that the term means "the act of applying" rather than removal of

manure, litter, and wastewater; recharge feature under paragraph (46) was changed to delete the word pathways and replace it with hydrologic connection; and United States Department of Agriculture - Natural Resources Conservation Service under paragraph (55) was modified in response to comments to include the acronym.

The adopted amendment revises the definition of area land use map under paragraph (5) and letter of consent under paragraph (26) to indicate that written consent for location and operation of permanent odor sources within the required minimum buffer distance must be obtained from a place of worship only when it is located within a permanent structure; and to expand the requirements for location and operation of permanent odor sources within the minimum buffer distance to include written consent from any governmental entity responsible for operating a school or public park. The definitions were revised to be consistent with changes made in §321.43 in response to public comments received on this rule.

Adopted §321.33 adds "and Required Authorizations" to the section's current title "Applicability." The adopted amendment to this section clearly establishes which CAFOs are required to obtain authorization, what authorization they must obtain, and the schedule for when the CAFO authorization must be obtained. Individual permits are required for certain CAFOs as specified in state law, rules of the commission, or as designated by the executive director. General permits provide flexibility for coverage for any CAFO not required to obtain authorization under an individual permit. The adopted amendment also prohibits dual coverage under both types of authorization. Section 321.33(b) was revised in response to comments to clarify that operators may not commence physical construction

and/or operation of any "new" control facilities until a permit has been issued. Section 321.33(b)(5) was revised to spell out animal feeding operation because it is the first time the term is used in the section. Section 321.33(c) was also revised in response to comments to clarify that operators may not commence physical construction and/or operation of any "new" control facility until an operator receives authorization under an individual permit or a general permit.

If an application for an individual permit is filed before July 27, 2004, adopted §321.33 allows CAFOs to continue to operate under the terms and conditions of an existing permit by rule or individual permit until the commission acts on the application for an individual permit or the CAFO is authorized under the CAFO general permit. This section references that adopted §321.47 provides authorization for the operation of AFOs not defined or designated as CAFOs. The adopted amendment continues to authorize runoff from LMUs that have been properly managed according to the requirements under this rule. The adopted amendment limits the term of any CAFO authorization issued in accordance with this rule to five years, as required by the federal Clean Water Act and NPDES.

A new §321.33(b)(5)(F) was added to allow the executive director the authority to require the owner or operator of any new CAFO whose production area or LMU is located in a watershed of a segment listed on the current 303(d) to obtain an individual water quality permit. This change adds another reason why the executive director may require an individual permit. The remaining subparagraph was re-lettered accordingly.

Adopted §321.34 changes the current title "Procedures for Making Application for Individual Permit" to "Permit Applications." The adopted amendment maintains the basic notice, public participation process, and application requirements for individual permits as currently required in this section. However, the adopted section streamlines the existing procedural requirements by referencing applicable provisions in 30 TAC Chapters 281 and 305. The adopted amendment incorporates the new federal permit application requirements in 40 CFR §122.21(i)(1). For general permit purposes, new or expanding CAFO facilities must comply with adopted §321.34(b)(3) that requires an applicant to comply with the public participation processes to be set forth in a general permit. The commission believes that the public participation process would assist agency staff and the CAFO during the CAFO authorization process. The adopted rules contain a notation that expansions which are not considered significant only require CAFO owners or operators authorized under a general permit to amend a pollution prevention plan (PPP) and meet all the technical requirements of this subchapter and the permit or authorization. Adopted §321.34(b)(4) was revised in response to comments to now require notice and an opportunity for public comments and a public meeting for individual permits for state-only CAFOs in order to comply with TWC, Chapter 5, Subchapter M. The adopted rules allow the executive director to review an application without a contested case hearing if the application does not propose any change that constitutes a major amendment or if the operation is not a major source. Section 321.34(f)(3) was revised in response to comments to acknowledge that a certified water quality management plan prepared by the Texas State Soil and Water Conservation Board (TSSWCB) that is developed for a dry litter poultry CAFO that evaluates site-specific recharge characteristics and management practices of the operation will meet the recharge feature requirement of paragraph (3).

The commission also revised §321.34(f)(4) to reference the Texas Engineering Practice Act and the Texas Geoscience Practice Act.

Adopted §321.35 changes the current title "Procedures for Making Application for Registration" to "Fees." The adopted amendment deletes references to the registration process and establishes the fee requirements for CAFO individual permits. Specifically, the adopted amendment deletes the registration option as a type of CAFO authorization because the agency will transition to the use of general permits and individual permits to authorize certain CAFOs. The commission will utilize the authority under TWC, §26.040, to issue general permits to authorize similar types of discharges from CAFOs and to efficiently use agency resources while providing an adequate level of environmental protection. The adopted requirements for submittal of an application fee and annual assessment fee will be consistent with existing requirements for individual permits.

Adopted §321.36 amends the current title "Notice Requirements" to "Texas Pollutant Discharge Elimination System (TPDES) General Requirements for Concentrated Animal Feeding Operations (CAFOs)." This section now establishes the minimum requirements for TPDES authorizations under either a general or individual permit. The adopted amendment will maintain many of the existing TPDES requirements currently in §321.39, Pollution Prevention Plans. In addition, the adopted amendment adds new federal NPDES requirements in 40 CFR Parts 122 and 412 such as NMPs, sinkhole buffers, inspection frequency, annual reports, and closure of retention control structures (RCSs). The most significant federal change requires all CAFOs to implement and operate according to an NMP developed and certified in accordance with the Natural Resource Conservation Service's

(NRCS) 590 Practice Standard, by December 31, 2006. Section 321.36(d) was revised in response to comments to insert "Code" before 590 and correct a grammatical error by replacing "a" with "an." Section 321.36(e)(2) was modified to include "acre-inches, acre-feet, or gallons" which are other measurements currently used in calculating volumes.

The adopted amendment also moves into this section the requirement for manure and wastewater sampling and logging of manure transport from §321.39 to specify that this is a requirement for TPDES authorization. The adopted amendment also establishes a new requirement for a 100-foot buffer around sinkholes, along with the option for a variance, as allowed in the federal CAFO rules. This requirement is necessary to prevent manure, litter, and wastewater from being applied too close to sinkholes, which could potentially contribute to the degradation of water quality. The adopted amendment also moves the requirement for soil sampling and testing, annual sampling, sampling procedures, and laboratory analysis from §321.39 into this section to specify that these are requirements for TPDES authorization. Section 321.36(g)(4) was revised in response to comments to add "Inductively Coupled Plasma" (ICP) as a more accurate measure of phosphorus (P). The amendment will add a requirement to collect soil samples according to procedures in the agency's publication "Soil Sampling for Nutrient Utilization Plans" and establish specific procedures for collecting representative soil samples. This requirement is necessary to instruct operators on methodologies to collect representative and statistically valid soil samples representative of the concentration of nutrients in the LMU. The adopted amendment also includes requirements from the federal CAFO rule for visual inspections of the CAFO's control facility and land application equipment, on a daily and weekly basis, respectively, to verify that the CAFO is operating correctly. The adopted amendment will require

CAFO operators to conduct a daily inspection of all water lines, including drinking water and cooling water lines, located within the drainage area of the RCS. The CAFO operator must also conduct a weekly inspection of all control facilities and equipment used for the land application of manure, litter, or wastewater. An inspection must be made of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to each RCS. These requirements are necessary to ensure that the control facility is in working order to protect water quality.

The adopted amendment also describes the records that must be kept and incorporates the requirement from the federal CAFO rules into Subchapter B to keep records in the PPPs for a five-year period. This amendment is necessary to update Subchapter B to be consistent with new federal requirements. The adopted amendment also establishes the requirement for CAFOs to submit an annual report to summarize the waste management activities at the CAFO during the previous year. This requirement is from the federal CAFO rule and incorporates specific elements of the annual report from the federal rule into Subchapter B to make it consistent with federal requirements. Section 321.36(j)(8) was revised in response to comments to state that the "initial" soil analysis and not the "original" soil analysis is the document required to be submitted with the annual report. The adopted amendment also moves the pond marker requirement from §321.39 to this section. Section 321.36(k) was modified in response to comments to reinstate the requirement that the pond marker must also identify the minimum treatment volume required for AFOs covered under the air standard permit.

The adopted amendment to dispose of carcasses within 24 hours of death in accordance with state laws and regulations was added to support the existing requirement for carcass disposal, which is from

§321.40, Best Management Practices. This requirement is necessary to establish that carcasses must be collected within 24 hours and does not allow them to remain unattended for more than three days before disposal is required. The adopted amendment also includes the federal CAFO rule language prohibiting the disposal of carcasses into a liquid manure system. This requirement is necessary to assure that the liquid manure system is not used to store dead animals. The adopted amendment also requires the CAFO to develop a closure plan and to perform proper closure whenever a single RCS is taken out of service or in the event the entire CAFO ceases operation. The amendment also proposes that the CAFO comply with the proper operation and maintenance requirements of this subchapter until closure is complete, at which time the CAFO may terminate the authorization. This requirement is necessary for Subchapter B to be consistent with federal requirements and to assure that RCSs and other components of the control facility are not abandoned until proper removal and disposal of waste has occurred. Section 321.36(m) was modified in response to comments to include the word "Code" to 360 to correctly identify the NRCS practice standard.

Adopted §321.37 changes the title "Actions On Applications for Registrations" to "Effluent Limitations for Discharges from Concentrated Animal Feeding Operation (CAFO) Production Areas" since the existing content of the section is no longer needed because the registration process will no longer be a form of authorization. The adopted amendment maintains many of the existing TPDES requirements in §321.39. The amendment proposes to replace existing registration requirements with the requirements to meet the effluent limitation guidelines for discharges from production areas of CAFO operations. The amendment also proposes to allow cattle and dairy CAFOs to request alternative performance standards in lieu of the established effluent limitations guidelines in the federal CAFO rules for

traditional discharges from cattle or dairy operations. The adopted amendment also allows similar variance requests from swine, poultry, and veal CAFO operations for voluntary superior environmental performance standards. This amendment is necessary to update Subchapter B to be consistent with the new federal requirements.

Adopted §321.38 changes the title "Proper Operations and Maintenance" to "Control Facility Design Requirements." The adopted amendment moves the well buffer requirements from §321.39 into this section and incorporates a new 100-foot buffer requirement for agricultural irrigation wells. This amendment is necessary to minimize the potential of waste applied on the surface in the vicinity of agricultural irrigation wells to affect water quality and to update Subchapter B to be consistent with federal requirements. The adopted amendment also allows a variance from the buffer requirements for existing facilities that operate according to a recharge feature certification plan in order to provide flexibility to existing facilities constructed prior to the buffer requirements. This variance is necessary to allow existing CAFOs authorized under this rule before the buffer requirements were adopted to continue to operate without the economic hardship of retrofitting the CAFO and provides equivalent protection of the wells. The adopted amendment moves the requirement that control facilities and RCSs be located outside the 100-year floodplain from §321.39 to this section. Section 321.38(d) was revised in response to comments to delete the reference to 30 TAC Chapter 301 and provide that the AFO must be protected from damage "that may occur during the flood" instead of designating the rainfall event. The adopted amendment also moves the specifications, location, and design capacity requirements for the RCS from §321.39 to this section. Section 321.38(e)(4) was changed in response to comments to add "without any modification of the RCS" to include all changes to which the provision would apply.

The commission revised §321.38(e)(4) to specify that it addresses capacity requirements for the design rainfall event. Section 321.38(e)(5) was changed in response to comments to replace "demonstrated" with "documented" to clarify the requirement. The adopted amendment also establishes a new requirement for new source swine, veal, and poultry operations to design, construct, and operate an RCS to meet the 100-year, 24-hour design as required by the new federal CAFO regulations. The adopted amendment also moves the design requirements for systems using irrigation, evaporation systems, dewatering systems, and embankment and liner design from §321.39 to this section. Section 321.38(e)(7)(B) was revised in response to comments to more accurately describe the required RCS volume and reinstate the previous language regarding the 21-day minimum storage period. The commission modified §321.38(g)(1) and (2) to specify that the provision applies to new or modified RCSs. Additionally, the commission deleted "new construction and for all structural modifications of" because §321.38(g) applies to new and existing RCSs. Section 321.38(g)(3)(B) and (C) were modified in response to comments to state when the lack of hydrologic connection or when liners are required. The adopted amendment to the embankment design provision includes specifications on the distances required to be maintained above and below the spillway depending on the type of system. The adopted amendment also moves the manure storage capacity requirement from §321.39 into this section. The adopted rule requires manure areas to be located within the drainage area of the RCS and accounted for in design calculations of the RCS if manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in case of the design rainfall event.

Adopted §321.39 changes the title of the section from "Pollution Prevention Plans" to "Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)" to better

reflect the description of operational requirements in the section. The provisions regarding RCS operation and maintenance, storage of waste, and sludge are currently located within this section. The adopted amendment adds a provision regarding imminent overflow as a result of chronic or catastrophic rainfall or catastrophic conditions to require the operator to irrigate wastewater to LMUs as a management practice that will minimize pollutant loads to receiving waters. Section 321.39(b)(3) was modified to clarify the sampling point of discharges from the LMU. The amendment would also require the operator to report the activity to the regional office within 24 hours of beginning irrigation. Section 321.39(b)(5) was revised in response to comments to reinstate the liner re-certification in case of damage that was inadvertently omitted. The adopted amendment regarding sludge volumes requires CAFOs to remove accumulated sludge "in accordance with the RCS design sludge level" instead of the previous requirement "when 50% of the treatment volume has been exceeded." The adopted change that requires a CAFO to develop procedures for spill prevention and recovery moves from §321.40 into this section. Section 321.39(d) was revised to reflect the requirement from previous rule language and delete the requirement for a written plan. The adopted amendment establishes a new requirement that waste stored for more than 30 days will be considered as permanent storage and states that agency permits will require proper containment to prevent contaminated runoff from leaving the CAFO. Although EPA CAFO permitting guidance recommends that storage of dry poultry litter be limited to no more than 15 days to avoid discharges, these amendments prohibit a discharge from an LMU regardless of length of time dry litter is stored. The adopted rule requires permanent manure storage areas to be located within the drainage area of the RCS and accounted for in design calculations of the RCS if manure storage areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in case of the design rainfall event. The adopted

amendment also allows for composting at the CAFO without separate authorization, provided it is conducted in accordance with the agency's composting rules and regulations. The adopted amendment restricting livestock from coming into contact with water in the state was moved from §321.40 into this section. The adopted change adds a specific provision identifying an existing requirement that a CAFO must maintain vegetation in pastures where animals from the CAFO are grazing.

Adopted §321.40 changes the title of the section from "Best Management Practices" to "Concentrated Animal Feeding Operation (CAFO) Land Application Requirements" because many of the best management practices (BMPs) were moved to other sections of the rules directly related to that specific management activity. The adopted amendment moves the existing requirements for land application from §321.39 to this section. The provisions regarding buffer requirements are currently in §321.40. The commission revised §321.40(h) to allow irrigation of wastewater 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. This provision satisfies the new federal CAFO regulation in 40 CFR §412.4(c)(5)(ii). The adopted amendment will establish new requirements that CAFOs install additional protective measures in any new LMUs to prevent pollutants from entering an irrigation well. The amendment also proposes to establish what protective measures can be utilized by the CAFO to meet this requirement. The adopted amendment also adds a new requirement for CAFO operators to install backflow prevention devices in accordance with 16 TAC Chapter 76, Water Well Drillers and Water Well Pump Installers, if wastewater or chemicals are introduced to wellheads of irrigation systems. The adopted amendment requires all CAFO operators to develop and implement an NMP to satisfy the new federal requirements for proper land application. Further, the adopted amendment requires land

application to be based on total nutrient concentration instead of the former §321.39 requirement for nitrogen. Land application rates must not exceed nutrients necessary to meet the planned crop requirement as stated in this rule. The adopted amendment also moves the NUP requirements from §321.39 into this section. Section 321.40(k)(2) has been revised to reflect the "Critical Phosphorus Level" because the rule does not contain a P limit. Section 321.40(k)(3) has been changed in response to comments to correct the name of the certifying party for professionals that are authorized to develop NUPs. The commission also replaced the reference to 200 parts per million (ppm) with "critical P level" because the level varies depending on location in the state.

Adopted §321.41 changes the title "Other Requirements" to "Special Requirements For Discharges to a Playa." The adopted amendment sets forth the requirements for playas currently in §321.40. The adopted amendment contains the requirements associated with TWC, §26.048, and the circumstances under which an AFO may utilize a playa as an RCS.

Adopted §321.42 changes the title "Monitoring and Reporting Requirements" to "Requirements Applicable to the Major Sole-Source Impairment Zone." Most of the requirements in adopted §321.42 are new provisions included to improve water quality conditions in a major sole-source impairment zone. In addition, this section also addresses the North Bosque River Watershed TMDL and implementation plan which is also the major sole-source impairment zone.

The Subchapter B adopted rule provisions and the North Bosque River Total Maximum Daily Load (TMDL) Implementation Plan seek to significantly reduce the amount of P (and other pollutants)

discharged to waters in the state from dairy CAFO sources in the watershed. Primary management strategies for dairies, both voluntary and regulatory, were identified in the implementation plan which included: 1) requiring P-based application rates when applying manure to LMUs; 2) voluntarily implementing efforts to reduce the amount of P in dairy cow diets; 3) and removing significant quantities of dairy-generated manure from the watershed for the production of compost, beneficial use on crops, or disposal. The P-based waste management plans are required for applications currently being processed by TCEQ. These applications also specify how the excess manure will be managed. The voluntary P diet reductions are being implemented through consultations between a nutritionist and the dairy operator. Any such dietary P reductions will result in reduced P concentrations in manure. These strategies are facets of CNMPs required for all dairy CAFOs in the major sole-source impairment zone (§321.42), i.e. the Bosque River Watershed.

A CNMP for an individual dairy CAFO must consider manure P content, the LMU area available for land application based on P-rate application, and the amount of excess manure that would remain. It must also account for all pathways of manure use or disposal, which would include removal to compost facilities, transport to another watershed for land application, or land application at on-site LMUs. These requirements that apply when the commission authorizes a CAFO in the major sole-source impairment zone, are contained in §321.42(i)(5), (n) - (p), and (s).

Continuing education requirements in §321.45(b) mandate that dairy operators be trained on management practices that are also consistent with the implementation plan regarding feed management and waste management practices.

The implementation plan also includes a recommendation that the CAFO rulemaking consider more stringent requirements for RCSs, in order to reduce overflows of dairy wastewater. In response, several new requirements applicable to dairy CAFOs in the major sole-source impairment zone have been proposed that are consistent with the implementation plan. Section 321.42(c) specifies that RCSs must be designed to contain the volume associated with a 25-year, ten-day rainfall event or contain a volume that would result in a discharge of no more often than once per 25 years as evaluated through the soil, plant, air, and water (SPAW) hydrology tool.

Some of the additional requirements for RCSs at dairy CAFOs in §321.42 include: 1) a permanent pond marker, graduated in one foot increments from the minimum treatment volume to the top of the spillway; 2) an RCS management plan for all dairy CAFOs detailing procedures for proper operation and management of wastewater levels based on design and assumptions of monthly expected operating levels; 3) daily monitoring records of wastewater levels; 4) a contract between the dairy operator and the off-site recipient of manure to be applied, which specifies land application practices for beneficial use and provides for quarterly reporting to TCEQ by the operator; 5) notification to TCEQ regional staff of soil sampling events; 6) notification of discharges within one hour; and 7) a report of discharges submitted to the TCEQ regional office documenting that overflows from cumulative rainfall events were beyond the operator's control.

For AFOs that are not CAFOs, §321.47(d) and (e) specifies RCS design, operation, and maintenance requirements. When necessary to achieve water quality or other policies or purposes, the executive

director has the discretion to require an AFO to be designated a CAFO, with the potential and imposition of more stringent requirements (§321.33(b)(5)).

The implementation plan includes a recommendation that the CAFO rulemaking consider whether additional limitations or requirements are needed for runoff control and whether additional irrigation management is needed to prevent excessive runoff. In response, the rule includes enhanced requirements consistent with the implementation plan for CNMPs (previously mentioned). Section 321.40(h) requires a 100-foot wide vegetative buffer between every application area and a water body in the state. Also, §321.42(q) specifies that automatic irrigation shutdown requirements may be imposed and §321.42(r) prohibits nighttime land application from midnight to 4:00 a.m.

To ensure compliance, CAFO operators must report a discharge within 24 hours of the discharge and must sample the discharge including any discharge from an RCS (§321.44).

To achieve the goals of the implementation plan, this section contains more stringent provisions for the operation and management of dairies to protect the impaired watershed. These provisions will be implemented through the use of individual permits which will include special provisions for CNMPs, NMPs, NUPs, BMPs, and other site-specific land application requirements necessary to achieve the goals of the TMDL. Some of the new provisions were consensus recommendations of the technical standards committee that developed the North Bosque River Watershed White Papers in 2003. The monitoring and reporting requirements in §321.42 have been moved to adopted §321.44, Notification. The adopted amendment applies to operators of dairy CAFOs in the major sole-source impairment zone

and specifies that these requirements supercede any other requirements applicable to CAFOs in general, if they conflict with a requirement in this section. The adopted amendment further requires dairy CAFOs in the major sole-source impairment zone to operate and maintain a margin of safety volume consistent with the SPAW Field Pond Hydrology model or a 25-year, ten-day rainfall event. The SPAW model is an NRCS tool that will enable a consultant to analyze the management, operation, and sizing of the RCS to determine its suitability to protect water quality. Using the SPAW model, a consultant must ensure that the data shows that the probability of an overflow from the RCS will be less than once in 25 years. Alternatively, a consultant can design an RCS to contain wastewater from a 25-year, ten-day rainfall event to meet the required margin of safety to protect water quality. The adopted margin of safety exceeds NPDES requirements for the design rainfall event and has been included due to the water quality in impaired segments of the North Bosque River Watershed. The adopted amendment also requires that the margin of safety must be maintained and shown on the pond marker. Section 321.42(d) has been revised in response to comment to reflect that the margin of safety must be maintained in the RCS. This new provision is adopted to manage storage capacity to minimize overflows of wastewater from RCSs. The adopted amendment also contains a requirement for dairy CAFOs to add one-foot graduations to the pond marker to identify the depth, between the required minimum treatment volume level and the spillway which includes the margin of safety. The adopted amendment also requires the dairy operator to monitor daily the wastewater levels and to maintain a log to assist with RCS management and compliance with these rules.

The adopted amendment also requires dairy operators in major sole-source impairment zones to develop and implement an RCS management plan which will establish the appropriate wastewater management

levels according to the RCS design and the requirements in this section. The dairy operator is also required to operate the RCSs according to the plan and maintain wastewater levels at or below the expected end of month projected level. This provision will improve RCS management and minimize conditions that lead to overflows. In addition, agency staff will be able to review the plans and records of management to document compliance with the requirements of this subchapter. The adopted amendment also moves the management and disposal practices from §321.48, Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs), to this section to consolidate special requirements for dairies located within major sole-source impairment zones in one section. Section 321.42(i)(5)(B) has been revised in response to public comment to include "Code" to correctly identify the NRCS standard.

The adopted amendment adds a new provision to allow the operators of existing dairy CAFOs in the major sole-source impairment zone to provide manure, litter, and wastewater to operators of third-party fields under contract that have been identified in the PPP. The dairy operator will be subject to enforcement action for violations of the land application requirements on any third-party field under contract. Specifically, the amendment requires: 1) a written contract between the dairy operator and the recipient; 2) dairy operators are not allowed to deliver manure, litter, or wastewater to a third party if the soil test P analysis shows a level equal to or greater than 200 ppm, or the operator is not in compliance with §321.36 and §321.40 or the contract; 3) annual samples of third-party fields by a nutrient management specialist; and 4) submittal of records to the appropriate regional office quarterly. This provision was added to allow effective utilization of nutrients on deficient soils throughout the

watershed and will reduce additional land application to LMUs at the CAFO. This is intended to reduce the potential for P runoff from the CAFO LMUs.

Section 341.42(j) has been revised to delete "are not expanding" to clarify that any existing dairy CAFO can utilize third-party fields. TWC, §26.503, provides for disposal practices for dairy CAFOs which includes allowing manure to be put to other beneficial uses such as application on third-party fields. The commission has determined that land application in accordance with this provision will protect water quality in the major sole-source impairment zone. The commission revised §321.42(j)(2) to specifically reference §321.36 and §321.40 as required by §321.42(j)(1). Section 321.42(j)(3) has been revised in response to comments to accurately reflect that LMUs are not associated with third party fields. Section 321.42(k) has been revised in response to comments to delete the phrase "an employee of" to clarify that an employee cannot contract with an operator.

The adopted amendment moves certain soil sampling and testing requirements from §321.49, Dairy Waste Application Field Soil Sampling and Testing, to this section to consolidate special requirements for major sole-source impairment zones in one section. The adopted amendment requires the dairy operator to assure that those samples are analyzed according to the sampling and analysis requirements of the PPP. Section 321.42(m) has been revised to require the dairy CAFO operator to furnish the appropriate regional office and the commission's Office of Compliance and Enforcement, Enforcement Division, soil testing analysis of all soil samples within 60 days of the date the samples were taken in accordance with the requirements of the subchapter. Section 321.42(n) and (o) has been revised in response to public comment to correct the citation from (j)(3) to (m). Also, §321.42(o)(2) has been

revised to clarify that a crop removal rate is necessary to satisfy the P reduction requirement for the NUP. Also, §321.42(p) has been revised to explain that a crop removal rate is necessary to satisfy the P reduction requirement for the NUP. The adopted amendment requires the dairy operator to which this section applies to notify the appropriate TCEQ regional office in writing of the date, time, and location where soil samples will be taken ten working days before collecting soil samples. The adopted amendment was included to allow agency staff to verify the appropriateness of the sampling protocol and other requirements of this subchapter. The adopted amendment requires dairy operators to suspend land application between midnight and 4:00 a.m. and to prevent discharges from the irrigation system. The adopted amendment states that the executive director may require an automatic emergency shutdown device to be installed if an unauthorized discharge occurs from the LMU. Section 321.42(q) has been revised in response to comments to delete the phrase "an unauthorized" to correct the mis-interpretation that an unauthorized discharge must be documented for it to be considered a violation. This provision is included to assure that the operator supervises irrigation practices and to prevent unauthorized discharges when the operator is not present. Section 321.41(t) has been revised in response to comments to clarify which CAFOs must adhere to this provision.

The adopted amendment requires all dairy CAFOs in a major sole-source impairment zone to develop and implement a CNMP certified by the TSSWCB no later than December 31, 2006. The adopted amendment requires CNMPs to assure that dairies utilize NRCS technical standards and program financial assistance in order to improve water quality by establishing a conservation plan for management of manure, litter, and wastewater.

The adopted amendment requires that a dairy CAFO operator notify the TCEQ regional office orally within one hour of discovery of a discharge. This proposal enables agency staff to quickly investigate and document discharges that may adversely affect water quality and assure that operators comply with appropriate measures to minimize any potential impact. The adopted amendment requires the dairy CAFO operator to submit a report to the regional office after a discharge. This report will be used to substantiate whether the overflow was beyond the operator's control. This provision is adopted to allow agency staff to review the documentation and circumstances which caused the overflow and determine if the operator was in compliance with the requirements of this subchapter. For additional protection in a major sole-source impairment zone, the commission added subsection (w) that requires dairy CAFO operators who utilize LMUs to: 1) adhere to the vegetative buffer required by §321.40(h); 2) install and maintain a filter strip or vegetative barrier, according to NRCS Codes 393 or 601, between the vegetative buffer and land application area; and 3) install and maintain contour buffer strips, according to NRCS Code 332, in the land application area nearest to the vegetative barrier or filter strip.

The adopted amendment requires dairy operators who use the SPAW certification method for the margin of safety to meet the 25-year, ten-day rainfall standard if an unauthorized discharge occurs. This provision is included to require additional storage capacity if the dairy operator fails to correctly manage the system according to the SPAW model.

The adopted amendment also requires the dairy CAFO operator to report a discharge from an RCS or LMU and submit a report to the appropriate regional office including the facility records that will be

used to substantiate whether the overflow was a result of cumulative rainfall that exceeded the volume of safety storage capacity without the opportunity for dewatering, and was beyond the control of the operator. After review of the report, if required by the executive director, the operator shall have an engineering evaluation. This provision was added to provide more information to the commission for a thorough evaluation of the circumstances and conditions which contributed to the discharge.

Adopted §321.43 changes the title "Notification" to "Air Standard Permit for Animal Feeding Operations (AFOs)." The adopted amendment to this section would allow AFOs to obtain an air quality standard permit authorization by meeting the requirements contained in this subsection. This authorization may be obtained in conjunction with a pending water quality authorization, or, if a water quality application is not pending, a separate request made in writing may be used to obtain the air standard permit. Formal registration for authorization to operate under the air standard permit is not required. Any AFO that does not qualify for a permit by rule under Chapter 106, or that cannot satisfy the air quality criteria of this amended subchapter must obtain an individual air quality authorization under Chapter 116. Any AFO that is a new major source or major modification as defined in Chapter 116 must obtain an air quality permit under Chapter 116.

Regardless of any water quality authorization granted under the amended subchapter, AFOs must comply with any applicable federal air quality regulations, including, but not limited to, National Emission Standards for Hazardous Air Pollutants (NESHAPs) and New Source Performance Standards (NSPS). Any AFO that constitutes a major source as defined in 30 TAC Chapter 122 must obtain a federal operating permit under that chapter. Additionally, any AFO must meet the requirements of 30

TAC Chapter 111. The air standard permit for AFOs and authorizations thereunder are subject to applicable rules of Chapter 116, including §116.110, Applicability, and Chapter 116, Subchapter F, Standard Permits.

The amended rule as adopted consolidates the requirements for an air standard permit into one section. There have been no changes to the types of facilities that are eligible for the air standard permit. Some specific housekeeping and operational procedures that reduce the potential for nuisance conditions from these facilities are included in the rules; these are already in place at existing facilities and are necessary to maintain compliance with Chapter 111. For consistency purposes, specified controls have been added for facilities that operate a feedmill on site. Controls for feedmilling equipment are the same as those required in Chapter 106 for a feedmill making changes under a permit by rule.

The amended rule identifies the buffer requirements and alternatives for meeting those requirements. No substantive changes to the buffer requirements, which were previously located in a separate section, are adopted. In addition, details regarding the buffer requirements have been included to indicate when the buffers must be met, when written consent may be used to locate a permanent odor source within the buffer, how the buffer is measured, and what information the area land use map must provide. New written consent is not required upon encroachment by a third party into the buffer zone after the AFO has started construction unless the AFO expands beyond the scope of the initial construction and beyond the written consent. The adopted amendment also allows for the use of innovative technology in the treatment of wastewater while continuing to qualify for the air standard permit. The adopted

amendment still allows the implementation of the odor control plan to reduce or eliminate the required buffer.

Because emissions from AFOs must be controlled to protect public health, in accordance with §116.605(d)(1) these amendments to the air standard permit for AFOs would be effective upon the effective date of the rule. Once effective, the amendments will apply to new facilities and to existing facilities operating under the air standard permit. Minor changes were made to this section after proposal to address comments made by the public, add clarification to the dual authorization paragraph, correct the citation for the table with the buffer requirements, and correct grammatical errors.

The commission revised §321.43(h) to indicate that the holder of the air standard permit is not limited to holding an individual permit but can also hold other applicable authorizations for facilities not authorized by the air standard permit.

The figure indicator in §321.43(j)(2) was revised in response to a comment. The figure indicator and graphic were moved to clarify that the buffer requirements apply to all of paragraph (2).

Section 321.43(j)(2)(C) and (D) were revised in response to public comments. First, the subparagraphs have been revised to reflect that written consent for location and operation of permanent odor sources within the required minimum buffer distance must be obtained from a place of worship only when it is located within a permanent structure. Second, for additional protectiveness, the consent requirement is expanded to require written consent for location and operation of permanent odor sources within the

minimum buffer distance from any governmental entity responsible for operating a school or public park.

Section 321.43(j)(3) was revised in response to public comments to restore the requirement omitted from the proposed rule that the wastewater treatment facilities must be operated in accordance with the design. The rule was also modified to make clear that the AFO, not the RCS, produces the process-generated wastewater.

Section 321.43(j)(3)(B)(i) was revised in response to public comments to reflect that the amount of contaminated runoff into the primary lagoon shall be minimized by routing the majority of runoff around the primary lagoon and into a secondary RCS. Additionally, the commission added "with a minimum treatment volume" in response to Office of Public Interest Counsel's (OPIC's) comment regarding the pond marker in §321.36. This section was also revised to correct a grammatical error.

Adopted §321.44 changes the title "Dairy Outreach Program Areas" to "Notification." The information for dairy outreach program areas is contained in adopted §321.32. The adopted amendment moves the existing discharge notification and monitoring requirements to this section. The adopted amendment adds additional monitoring parameters from the new federal CAFO rules and stakeholder input to now require a CAFO operator to monitor for total coliform, nitrate, total P, and total dissolved solids. The adopted amendment also requires notification to the commission prior to beginning operations at a new CAFO. This is to assure that agency field staff is aware of the operation of newly constructed facilities.

Adopted §321.45 changes the title "Effects of Conflict or Invalidity of Rule" to "Concentrated Animal Feeding Operation (CAFO) Training Requirements." The adopted amendment moves the existing training requirements from §321.41 to this section. Section 321.45(b) has been revised in response to comments to specify the applicability of this provision to dairy operators in the dairy outreach program area.

Adopted §321.46 changes the title "Air Standard Permit Authorization" to "Concentrated Animal Feeding Operation (CAFO) Pollution Prevention Plan, Site Evaluation, Recordkeeping, and Reporting." The existing air standard permits authorization requirements are located in the newly adopted §321.43. The adopted amendment describes the current requirements for the CAFO operator to develop and implement a PPP. The adopted requirements were moved from §321.39 into this section. The adopted amendment requires that management documentation be maintained in the CAFO PPP. These requirements consolidated in the PPP assist the CAFO operators in quickly identifying the PPP measures required for successful implementation of the PPP. Section 321.46(a)(4) has been modified in response to comments to delete the word "amend" and replace with "revise" to avoid confusion that this provision substitutes for an amendment to a permit, if required. The management documentation shall consist of a copy of the administratively and technically complete permit application, notice of intent seeking coverage under a general permit, or the written authorization issued by the commission or executive director for the CAFO; the RCS management plan, if applicable; a copy of the approved recharge feature certification, if applicable; the groundwater monitoring plan, if required; a copy of the NMP or NUP; site-specific documentation that no hydrologic connection exists between the contained wastewater and water in the state; and any written agreements with landowners

which document the allowance for nighttime irrigation, the odor control plan, documentation of employee training, including dates when training occurred, and for dairy outreach program area training verification, the dates, time of attendance, and completion of training. Section 321.46(b)(3) has been modified in response to comments to change the provision from requiring a "written plan" to requiring a copy of the procedures for spill prevention and recovery to be included as documentation. Section 321.46(b)(4) has been modified in response to comments to add "if applicable."

The adopted amendment also requires a site evaluation by a professional engineer to perform a complete site evaluation of structural controls, review liner documentation, and certify a report of the findings. This requirement was moved into this section from §321.39. Section 321.46(c)(1) has been revised in response to comments to restrict the applicability of this provision to CAFOs that use RCSs. The adopted amendment also requires the CAFO operator to inspect the control facility and LMUs annually and develop a report of the findings. This adopted requirement is moved from §321.42 into this section.

The adopted amendment also requires the CAFO operator to keep records for a five-year period to implement the federal CAFO rule requirements pertaining to recordkeeping. The adopted amendment adds a requirement to furnish those records within five days of a written request from the executive director. The records required to be kept by the CAFO operator include: a list of any significant spills of potential pollutants at the CAFO; a log of wastewater, manure, litter, and sludge removal that shows the dates, times, and location of application or disposal; a log of all daily measurable rainfall events, including the measured rainfall; documentation of liner maintenance by a licensed professional

engineer; groundwater monitoring records, if required by §321.41; records showing that the control facilities have been inspected for structural integrity and maintenance, including the date of each inspection and a description of the findings; and the records of all manure, litter, and wastewater either used at the facility or removed from the facility, updated at least monthly. In addition, the log should include all weekly wastewater levels observed in the RCS or daily wastewater levels in a major sole-source impairment zone. These requirements are moved from §321.39 into this section. Section 321.46(d) has been revised in response to comments to clarify which of the reporting requirements are applicable to CAFOs that do not use an RCS. Section 321.46(d)(2) and (8) has been revised in response to comments to eliminate duplicity regarding removal of manure, litter, wastewater, and sludge. Section 321.46(d)(9) has been revised in response to comments to add "if applicable."

To implement the new federal CAFO regulations, the adopted amendment requires the CAFO operator to keep records where manure, litter, or wastewater is applied on property owned, operated, controlled, rented, or leased by the CAFO owner or operator. These records must include the following information: date of manure, litter, or wastewater application to each field; location of the specific LMU and the volume applied during each application event; acreage of each individual crop on which manure, litter, or wastewater is applied; basis for and the total amount of nitrogen and P applied per acre to each field, including sources of nutrients other than manure, litter, or wastewater on a dry basis, and the percentage of moisture content of the manure; and actual annual yield of each harvested crop, and weather conditions during the land application and 24 hours before and after the land application.

The adopted amendment requires the CAFO operator to keep records of: annual nutrient analysis for at least one representative sample of irrigation wastewater, if applicable and one representative sample of manure/litter for total nitrogen, total P, and total potassium; the results of initial and annual soil analysis reports as required by this subchapter; and copies of all notifications to the executive director, including any made to a regional office, as required by this subchapter, or by a permit or authorization. These requirements were included to implement the new federal CAFO regulations. The commission deleted proposed §321.46(d)(11) because the federal CAFO regulations do not require monthly records of disposal and storage of toxic pollutants. Texas Department of Agriculture regulates the storage and disposal of pesticides. Section 321.46(a)(6) requires CAFOs to identify potential pollutant sources and measures to prevent environmental impacts.

The adopted amendment requires that the CAFO operators submit all required reports and soil testing analysis of samples to the regional office and central office with the annual report due February 15 of each year. This change provides consistency in reporting sample results to the agency and reduces duplication of reports. However, §321.42(m) now requires results within 60 days for dairy CAFOs in a major sole-source impairment zone.

Adopted §321.47 changes the title "Initial Texas Pollutant Discharge Elimination System Authorization" to "Requirements For Animal Feeding Operations (AFOs) Not Defined or Designated As Concentrated Animal Feeding Operations (CAFOs)." The TPDES authorization section is no longer needed because all pre-existing CAFOs subject to the TPDES initial authorization requirements should have obtained coverage within the past five years. Throughout this section, the commission has

modified provisions to make them consistent with similar requirements from the portion of the rules applicable to CAFOs.

The Agricultural Stakeholders Committee and other interested persons commented that this section is not necessary because the state regulations allow small AFOs to seek technical assistance from the TSSWCB to minimize agricultural nonpoint source pollution.

EPA, in its preamble to the new federal CAFO rules, explained the scope of the AFO definition. Specifically, EPA stated that true pasture and rangeland operations are not considered AFOs, because animals are in areas such as pastures, croplands, or rangelands, that sustain crops or forage growth during the normal growing season. Additionally, EPA stated that in some pasture-based operations animals may freely wander in and out of particular areas for food or shelter, so this is not considered as confinement. EPA noted that pasture and grazing operations may also have confinement areas that may qualify as an AFO. Second, EPA stated that incidental vegetation in a clear area confinement, such as feedlot or pen, would not exclude an operation from meeting the definition of an AFO. Third, in the case of a winter feedlot, the "no vegetation" criterion in the AFO definition is meant to be evaluated during the winter when the animals are confined. Therefore, use of a winter feedlot to grow crops or other vegetation during periods of the year when animals are not confined would not exclude the feedlot from meeting the definition of an AFO. Most importantly, EPA noted that animals must be stabled or confined for at least 45 days out of any 12-month period to qualify the operation as an AFO. Lastly, EPA assumes that AFOs and permitting authorities will use common sense and sound judgment in applying the definition.

The adopted amendment moves existing requirements for AFOs not defined or designated as CAFOs from §321.39 and §321.40 into this section. The adopted rule creates a new "applicability" subsection. Section 321.47(b)(2) was added in response to comments to clarify that an AFO that obtains and implements a certified water quality management plan (CWQMP) from the TSSWCB and complies with §321.47(c)(1) - (3) meets the technical requirements of this section. Further, AFOs, that do not have a CWQMP but use control facilities to manage manure, litter, or wastewater, must comply with all the provisions of this subsection. Section 321.47(b)(3) was revised to clarify that an owner of an AFO that does not use control facilities are only required to protect water quality and prevent odors and nuisance conditions. In addition, the facility may be subject to other requirements in §321.47 if the owner changes the operation and needs to use a control facility. The last proposed provision was deleted because it is not needed for AFO owners that do not use control facilities. The adopted general requirements were moved without any substantial change from the existing permit by rule under Subchapter B. Section 321.47(c)(6) was revised to delete the reference to Chapter 301 and revise language to "damage that may occur during a flood event" instead of rainfall event. If the owner of an AFO does not have a control facility, §321.47(c)(7) indicates that equivalent measures contained in a plan developed byn the TSSWCB and other plans required by other agencies can satisfy the technical requirements in this subchapter. Section 321.47(d)(2) was revised to specify what is needed for proper pen maintenance and eliminate redundant language. Section 321.47(d)(4) was revised by adding "without any modifications" to make it consistent with requirements for CAFOs. The adopted requirements for control facilities was revised to require design and construction of any new or modified RCS to be certified by a licensed Texas professional engineer. The adopted amendment detailing operation and maintenance of an AFO was also moved from §321.39 to this section with

additional language to require a rain gauge capable of containing the design rainfall event. The gauge shall be kept on site and properly maintained. The adopted amendment also includes the existing requirement for the permanent pond marker, but adds a new requirement that an indicator level identify the 100-year, 24-hour rainfall event as required for any new source swine, veal, or poultry operation.

The adopted amendment detailing the land application requirements for AFOs was moved from §321.39 and §321.40 to this section with a change to allow the AFO to utilize an NMP in lieu of a NUP if one is developed and implemented. The adopted amendment includes the designation of storage piles of waste as temporary if stored less than 30 days, and the requirement for dairy operations in the major sole-source impairment zone to adhere to waste management and disposal requirements consistent with other dairies in the watershed in accordance with adopted §321.42. The adopted provisions were added to specify the applicability of these requirements to AFOs.

The adopted amendment requires AFO operators to restrict animals from coming in direct contact with surface water and for the operator to maintain vegetation in areas where animals are kept in pastures. This new provision was added to establish water quality protection measures for AFOs that maintain animals outside the confinement areas.

The adopted amendment moved existing soil sampling and testing requirements from §321.39 to this section with a new requirement that the operator is not required to collect the annual sample from an LMU where wastewater or waste was not applied in the preceding year.

The adopted amendment moved the recordkeeping requirements from §321.39 to this section with a new requirement for AFOs to keep records for five years. The adopted amendment moved the requirements for documentation of liner maintenance, groundwater monitoring, inspections, and notification from §321.39 to this section without changes to the requirements. The adopted amendment also adds a new requirement that AFO operators must properly close their AFO and/or individual RCSs within one year of inactivity or ceasing operation in accordance with Texas Cooperative Extension/United States Department Of Agriculture - NRCS technical guidance publication #B-6122. This provision was added to assure that AFOs protect water quality by closing the facility when the AFO stops operating.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirement of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to §2001.0225. The adopted amendments do not meet the definition of a "major environmental rule" as defined in §2001.0225, and the rulemaking is not subject to the regulatory analysis provisions of §2001.0225(b) because it does not meet any of the four applicability requirements listed in §2001.0225(a).

"Major environmental rule" means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The adopted amendments, which are

intended to protect the environment and reduce risks to human health, will not have a material adverse effect on the economy or sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state because the adopted changes incorporate new federal requirements. The adopted amendments implement the requirements of its NPDES program, thereby allowing CAFOs to comply with federal requirements while obtaining one permit for both federal and state authorization. Also, because all states are required to implement programs equivalent to the federal regulations, Texas CAFOs will not be competitively disadvantaged by the adoption of these regulations. The adopted amendments will not have a material adverse effect on the environment or public health and safety of the state or a sector of the state because they will not make any of the technical requirements for operating a CAFO less stringent and, in fact, will incorporate more protective federal requirements.

Additionally, this rulemaking does not meet any of the four applicability criteria for a major environmental rule. The adopted amendments include the following: reorganize existing requirements; incorporate changes from the new federal CAFO regulations (40 CFR, Parts 122 and 412) published in the February 12, 2003 issue of the *Federal Register*, including dry poultry operations; specify TPDES general requirements for CAFOs; specify requirements applicable to dairy CAFOs in a major sole-source impairment zone; amend the air standard permit for AFOs; specify applicable requirements for AFOs that are not defined or designated as CAFOs; include applicable recommendations from the standards committee that developed the Bosque River Watershed White Papers and from the Implementation Plan for Total Maximum Daily Load of the North Bosque River Watershed; delete the registration process and references to Chapter 321, Subchapter K; and update the name of the agency.

The rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, or adopt a rule solely under the general powers of the agency.

Copies of the Bosque River White Papers and North Bosque River Watershed Total Maximum Daily Load Implementation Plan may be obtained by contacting the agency's Agriculture Team at (512) 239-1000 or from the agency's web site at *http://www.tnrcc.state.tx.us/permitting/waterperm/wwperm/agrigroup.html*.

TAKINGS IMPACT ASSESSMENT

Texas Government Code, §2007.003, specifies that certain governmental actions are exempted from coverage of §2007.003 and, therefore, exempt from the requirement to perform a takings impact assessment. These include an action that is reasonably taken to fulfill an obligation mandated by federal law. This rulemaking is exempt because it incorporates the new federal requirements into existing state requirements.

Notwithstanding the determination that this rulemaking is exempt from the requirements of §2007.043, the commission, in preparing a takings impact assessment, determined that this action does not constitute either a constitutional or a statutory taking.

The specific purpose of the amendments is to allow the commission to continue to fully implement the NPDES CAFO program in Texas by revising the existing Subchapter B rules to incorporate the new

federal CAFO requirements in 40 CFR, Parts 122 and 412. The adopted changes will allow the commission to continue to administer one permitting program for both NPDES and state permits, plus continue to authorize small AFOs under a permit by rule.

The adopted rules reorganize existing requirements in Subchapter B; specify TPDES general requirements for CAFOs; specify requirements applicable to dairy CAFOs in a major sole-source impairment zone; incorporate an air standard permit for AFOs; specify applicable requirements for AFOs that are not defined or designated as CAFOs; include applicable recommendations from the standards committee that developed the Bosque River Watershed White Papers and from the Implementation Plan for Total Maximum Daily Load of the North Bosque River Watershed; delete the registration process and references to Chapter 321, Subchapter K; and update the name of the agency.

The adopted amendments would substantially advance their stated purpose by incorporating the new federal requirements into existing state requirements and facilitating the transition from registrations to individual and general permits for CAFOs.

Promulgation and enforcement of these adopted amendments would be neither a statutory nor a constitutional taking of private real property. Specifically, the adopted amendments do not affect a landowner's rights in private real property because they do not place restrictions on the use of private real property in a manner that requires compensation under the constitution. Neither does this rulemaking restrict or limit an owner's right to property in a manner that reduces the property value by 25%.

In addition, Texas Government Code, Chapter 2007, does not apply to these adopted amendments because there is no reasonable alternative to this action which is being taken to fulfill an obligation under federal law. Specifically, the commission regulates federal CAFO facilities based on the delegation of the NPDES permitting authority from the EPA to the commission in 1998. Federal law requires a state with NPDES authority to incorporate new federal regulations such as 40 CFR, Parts 122 and 412 into the state requirements.

For these reasons, if this rulemaking were subject to the requirements to perform a takings impact assessment, the adopted rules would not constitute a takings under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

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

CMP goals applicable to the adopted rules include to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas and to ensure sound

management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone.

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

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

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

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

PUBLIC COMMENT

The public comment period closed on April 13, 2004. The commission held public hearings on the proposal in Stephenville on April 1, 2004; in Amarillo on April 6, 2004; and in Austin on April 13, 2004. The following provided oral and/or written comments during the comment period: Senator Kip Averitt (Senator Averitt); The Board of Directors of the Sulphur-Cypress Soil and Water Conservation District, (Sulphur-Cypress SWCD); Cactus Feeders, Incorporated (Cactus Feeders); Caprock Cattle Feeders; Carrizo Creek Corporation, (CCC); Citizens for Clean Water (CCW); City of Waco (Waco); Contibeef, LLC. (Contibeef); the Honorable Fred Cox, Hamilton County Judge (Judge Cox); Dublin Economic Development Corporation (Dublin EDC); EPA, Region 6 (EPA); Gonzales County Soil and Water Conservation District #338 (Gonzales County SWCD); the Honorable Linda Ethridge, Mayor of Waco (Mayor Ethridge); Lower Colorado River Authority, (LCRA); Representative Jim McReynolds (Representative McReynolds); Piney Woods Soil and Water Conservation District #429 (Piney Woods SWCD); Sierra Club, Lone Star Chapter (Sierra Club); Senator Todd Staples (Senator Staples); Shelby Soil and Water Conservation District, (Shelby SWCD); Texas Association of Dairymen (TAD); Texas Cattle Feeders Association, (TCFA); Texas Commission on Environmental Quality, OPIC; Texas Cooperative Extension, (TCE); Texas Farm Bureau, (TFB); Texas Pork Producers Association, Inc. (TPPA); Texas Poultry Federation (TPF); Texas Sheep & Goat Raisers' Association (TSGRA); Texas and Southwestern Cattle Raisers Association, (TSCRA); TSSWCB; United States Department of

Agriculture, NRSC (NRCS); Waco Hotel/Motel Association, Inc. (WH/MA); Waco Restaurant Association (WRA); The Wallace Group, Inc. (Wallace) and 674 individuals.

Piney Woods SWCD generally opposed the proposal. The remaining commenters expressed concern with specific issues in the proposed rules as outlined in the RESPONSE TO COMMENTS section of this preamble.

RESPONSE TO COMMENTS

General Comments

LCRA supported the proposed rules.

The commission acknowledges this comment.

TPF supported a separate general permit for dry poultry facilities which incorporates the TSSWCB developed waste management plan as the technical support for the permit. Representative McReynolds commented that the rules should include enough flexibility to allow development of a general permit for dry litter poultry operations that will meet federal regulations without undue economic burden. Senator Staples commented that his constituents have expressed concerns about potential requirements for individual permits for dry litter poultry facilities.

The commission responds that operations, such as dry litter poultry operations, are now defined as CAFOs and point sources. These are subject to commission jurisdiction and must be addressed

by EPA and all NPDES-authorized states under the requirements of the federal Clean Water Act and the requirements of the TPDES program. During the development of subsequent general and individual permits, the commission will consider existing requirements of the TSSWCB water quality management plans (WQMPs) for incorporation into commission permits. Existing dry litter poultry CAFOs must obtain authorization under an individual or general permit by April 13, 2006.

CCC supported the TSSWCB suggestions to retain language in the current rule which exempts facilities with a TSSWCB WQMP from permitting under this rule. TPF, TFB, and Gonzales County SWCD offered similar comments. Gonzales County SWCD, Shelby SWCD, and six individuals commented that the proposed rules would cause undue economic hardship on dry poultry litter operations. TSSWCB programs meet environmental protection standards and are so recognized by EPA since 1985. Sulphur-Cypress SWCD and Gonzales County SWCD did not agree with the proposed CAFO rule and the rule's application to dry poultry operations. One-hundred and eighty-six individuals supported a general permit with TSSWCB WQMP as technical documentation.

The commission responds that §321.33(i) of the adopted amendments exempts an AFO that is not a CAFO from TPDES permitting requirements. Operations, such as dry litter poultry operations, that are now defined as CAFOs are point sources. These are subject to commission jurisdiction and must be addressed by EPA and all NPDES-authorized states under the requirements of the federal Clean Water Act and the requirements of the TPDES program. During the development

of subsequent general and individual permits, the commission will consider existing requirements of the TSSWCB WQMPs for incorporation into commission permits.

CCC and TSCRA supported the development and issuance of general permits. TCFA, TSGRA, TPPA, and TFB supported the development of general permits.

The commission acknowledges these comments.

TCFA acknowledged efforts to "streamline" permitting process.

The commission acknowledges this comment.

OPIC supported the elimination of the registration process.

The commission acknowledges this comment.

OPIC supported the exclusion of the opportunity for "no potential for discharge."

The commission acknowledges this comment.

Piney Woods SWCD opposed rule development.

The commission acknowledges this opposition but the commission must amend the rule for the critical reasons described in the preamble proposing the amendments.

WRA commented that the quality of water in Waco has an affect on the restaurant business and therefore WRA encouraged the commission to help accomplish the goal of having the quality of water that provides people with a good experience.

The commission responds that the adoption of this rule is a major achievement in improving water quality. To assist in achieving the goals of the TMDL and implementation plan, more stringent requirements for a dairy CAFO operating in the major sole-source impairment zone, as well as other implementation procedures that address municipal wastewater effluent quality, should result in improved water quality in the North Bosque River and in downstream drinking water sources. The commission and other state and federal agencies developed and are implementing a water quality monitoring strategy aimed at evaluating any long-term changes in water quality due to implementation of requirements of this rule and other activities in the watershed aimed at protection and improvement of water quality. No changes have been made to the rules in response to this comment.

One individual commented that the application of waste to LMUs should not be allowed if soil test P is above 200 ppm.

The commission did not make changes to the rules in response to this comment. Title 40 CFR, Parts 122 and 412 do not specifically prohibit land application of waste to an LMU if soil tests indicate phosphorus levels above 200 ppm. Rather, the federal regulations require that a CAFO develop and implement an NMP for its facility and land apply at agronomic rates according to the NMP. In addition, TWC, Chapter 26, does not specifically prohibit land application on an LMU with P at 200 ppm. However, Subchapter L addresses the requirements for land application on LMUs at dairy CAFOs in a major sole-source impairment zone. The statute and rules identify the requirements for land application such as NUPs for fields above 200 ppm P. Even though available data on soil test P from peer-reviewed research papers and consultation with soil scientists from universities and federal and state agencies have indicated that P levels in excess of the established criteria of 200 ppm may leach from soil, the extent of the leaching is greatly influenced by soil types and other variable factors. These rules require the operator to have a NUP prepared by a trained specialist which considers site-specific variables, and provides the operator with guidelines for land application of manure, litter, and wastewater that will prevent further accumulation of P in the soil and reduce the potential for P runoff.

Mayor Ethridge and Waco commented that the proposed rules do not fulfilll the commission's commitment and legal obligation to attain the P TMDLs for the North Bosque River and assure that the agency's continued permitting of CAFOs in the watershed does not contribute to violation of state water quality standards. Mayor Ethridge and Waco commented that rule revision is an opportunity to correct problems in Bosque and Lake Waco, but the current rule will not achieve that goal as currently written.

The commission disagrees with these comments. The commission is currently implementing a TMDL to address P in the North Bosque River watershed, demonstrating the agency's commitment to restore water quality. The adoption of these rule amendments will result in more stringent requirements for all dairy CAFOs in the major sole-source impairment zone. This greater stringency will further reduce pollutant loadings from CAFOs into the North Bosque River rather than contributing to a violation of the water quality standards.

Mayor Ethridge and Waco commented that protection of the river cannot be accomplished with only a site-based approach that relies upon "CNMPs" and NRCS guidance. Mayor Ethridge and Waco commented that there need to be specific numerical standards for waste application fields that will ensure that the CNMPs will not allow additional manure to be applied where adequate P levels for crop requirements already exist.

The commission did not make any changes to the rule in response to this comment. EPA stated in the *Federal Register* that the amount or rate at which manure can be applied that ensures appropriate agricultural utilization of nutrients varies based on site-specific factors at the CAFO. EPA believes that relying exclusively on the numerical limitations is infeasible. The commission responds that a site-based approach that relies on CNMPs developed in accordance with United States Department of Agriculture (USDA)/NRCS guidelines and by specialists that have completed NRCS training satisfies the land application requirements from the federal CAFO regulation. The background and justification for this approach is discussed in detail in the "Strategy for Addressing Environmental and Public Health Impacts from Animal Feeding Operations"

developed jointly by EPA and USDA, in "Concentrated Animal Feeding Operations: Final Rule" developed by EPA and in "Concentrated Animal Feeding Operation Supplemental Documents: Development Documents" developed by EPA. The site-based approach acknowledges the inherent variability that prevails in agricultural areas of the state. It also relies on the expertise of agricultural specialists with access to scientifically based data and methods that are applicable to understanding and controlling the complex interactions between soil and water.

Mayor Ethridge and Waco commented that the proposed rules contain no mechanism for compliance with 40 CFR §122.4(i).

The commission disagrees that this rule needs to specifically address the federal rule and made no changes to the rule in response to this comment. Adopted §321.34 states that any AFO that is required to operate under an individual water quality permit by the TWC, the executive director, or this subchapter must submit an application in accordance with Chapters 281 and 305. Section 305.538 provides that no permit may be issued under the conditions prohibited in 40 CFR §122.4, as amended. 40 CFR §122.4(i) identifies instances when a permitting authority may not issue an NPDES permit to a new source or new discharger.

Mayor Ethridge and Waco commented that the proposed rules continue efforts on the part of TCEQ to defer regulatory requirements to comply with 40 CFR §122.4 and the TMDL. Mayor Ethridge and Waco stated that regulatory requirements were deferred from TMDLs to implementation plans, from implementation plans to proposed rules, and now from proposed rules to individual permits.

The commission did not make any changes to the rule in response to this comment. The commission disagrees that it is deferring or postponing requirements on dairies. The intent of 40 CFR §122.4(i) and §307.5 is to ensure a TPDES permit is issued consistent with an applicable WQMP or TMDL. With the North Bosque River TMDL Implementation Plan in place and these amended regulations adopted, permitting in accordance with the TMDL is allowable under a revised and more stringent framework of requirements.

TCFA and TPPA commented that the existing regulations are protective of environment and changes should be limited to those required to meet new federal regulations. TCFA commented that requirements should be based on sound science with consideration to the economic burden that regulations have on producers. TPPA commented that additional requirements should be considered with regard to the economic impact on producers. Contibeef commented that the existing rules are adequate and that the agency should make changes only as needed to accommodate changes in the federal regulations. Contibeef added that the rules need to be sufficiently flexible to take into account natural variability of biological systems and the agency should be sensitive to the costs involved for producers to implement the rules. Cactus Feeders noted that the existing rules provided adequate protection of the environment and revisions should be limited to what was needed to meet federal requirements. Caprock Cattle Feeders commented about the cost of implementation and supports the recommendation that the rule revisions be limited to those necessary to meet federal requirements.

The commission made no change in response to these comments. The commission's primary purpose for amending this rule is to incorporate changes in federal regulations into state regulations to comply with the NPDES delegation agreement between EPA and the State of Texas. Additionally, the amendments will assist in implementing the goals set by the North Bosque River TMDL. The rule was restructured to govern the individual permit requirements for CAFOs and continue to authorize small AFOs under the authorization by rule for AFOs. Through this process, few additional requirements beyond those necessary to meet new federal regulations were added that will apply to geographical areas outside of the major sole-source impairment zone.

One individual commented that inspections over and above those conducted by the TSSWCB should not be required. Additionally, the individual commented that due to recent outbreaks of avian influenza in the Gonzales area, additional on-farm traffic should be minimized.

The commission acknowledges this comment and takes steps to comply with disease vector abatement when entering a person's property. A dry litter poultry operation, now defined as a point source by federal regulations, is under the commission's jurisdiction. The commission initiated discussions with EPA and the TSSWCB to reduce or eliminate redundant inspections to the maximum extent possible. The commission has biosecurity procedures in place and investigators also comply with any requirements the producer may have in order to protect the facilities they inspect from the spread of diseases. The commission works closely with the Texas

Animal Health Commission to provide investigators with information relating to biosecurity concerns.

OPIC commented that the rules should include a provision which acknowledges the opportunity for a motion to overturn the executive director's granting or denial of an authorization to operate under a general permit and that TWC, §5.122(b), provides for a right to appeal to the commission.

The commission declines to make this change because 30 TAC §205.4(j) states that the executive director's decisions on notices of intent (NOIs) are subject to 30 TAC §50.139 (relating to Motion to Overturn Executive Director's Decision).

OPIC commented that the rules are an improvement over the existing rules, but do not adequately implement the new federal rules.

The commission responds that the EPA commented that this rule is consistent with 40 CFR, Parts 122 and 412. The commission did not make any changes to the rule in response to this comment.

OPIC commented that the proposed rules have inappropriately eliminated several requirements contained in the existing state rules. OPIC added that the rules should include clear standards applicable to CAFO facilities and that the technical requirements that have been taken out should be reinstated.

The commission acknowledges that several requirements of the existing rule were removed. OPIC's comments on specific requirements that were removed from the existing rule are addressed in the responses to specific comments in the RESPONSE TO COMMENT section of this preamble.

Sierra Club commented that the proposed rules will not meet water quality standards in streams where CAFOs are allowed to discharge wastes. Sierra Club commented that in §321.33 a moratorium should be imposed on issuance of any new or expanding CAFO located on or impacting streams currently on 303d list of impaired waters.

Federal law and state law do not require a moratorium to be imposed on issuance of all permits for new or expanding CAFOs located on or impacting streams currently on the 303d list of impaired waters. An authorization issued in accordance with this rule under either an individual or general permit must prohibit a violation of a state water quality standard. While there may be instances where a permit cannot be issued or issued with special conditions due to water quality reasons, these would be site-specific determinations. A measure to address a new or expansion CAFO in a 303(d)-listed watershed, authorization under a general permit will not be allowed when compliance with the general permit is inadequate or inconsistent with a TMDL implementation plan addressing loadings of the pollutant or concern from CAFOs. In this instance, §321.33 requires authorization by an individual permit so that site-specific or watershed-specific requirements of the implementation plan may be required. A dairy CAFO within the major sole-source impairment zone (North Bosque River Watershed included) is prohibited under state law

(and §321.33) from being authorized by general permit. In instances elsewhere in Texas where a new or expanding CAFO may be authorized under the general permit, the operator must comply with all requirements of the general permit that address potential effects on water quality, including such provisions as locating waste management activities outside of a 100-year flood plain, using appropriate land application practices, developing an NMP, and establishing a 100-foot wide vegetative buffer between every application area and a water body in the state, where appropriate.

The new or expanding CAFO must ensure that additional waste retention capacity and land application areas are constructed or available, so that no additional loading or contribution to the existing impairment occurs. By expanding the RCS as necessary, no higher frequency of discharge events will result from the RCS. When the unusual circumstance of an authorized discharge from an RCS occurs, it would be associated with a chronic or catastrophic rainfall event.

The commission also added other provisions to address concerns with RCS overflows. In the major sole-source impairment zone, the commission is addressing overflows with more stringent requirements for RCS capacity, operation, and maintenance, as described in §321.42. Additionally, the implementation of new federal requirements and the amendment of certain existing state requirements should also reduce the incidence of RCS overflows and reduce impacts of those overflows on instream water quality statewide. These amendments include a requirement for an RCS pond marker (§321.36(k)), more stringent provisions for RCS design applicable to

poultry, swine, or veal CAFOs, (§321.37(c)), the requirement to document the sufficiency of an RCS design as being consistent with 40 CFR, Part 412 (§321.38(e)(4)), additional clarifications describing when an operator may remove wastewater from the RCS for irrigation (§321.39(b)), and the addition of weekly recordkeeping of wastewater levels observed in the RCS (§321.46(d)(4)). These amendments are designed to affect better management of CAFO waste and fewer overflows.

TSSWCB commented that except for some administrative reporting requirements that may be required by federal regulations, CWQMPs developed by the TSSWCB should meet all of the technical requirements necessary for any general permit developed for dry litter poultry operations. TSSWCB recommended that a cooperative arrangement be developed between the TSSWCB and the commission which would allow the TSSWCB to remain the primary contact between the state and the industry, specifically as it relates to inspections, after a facility receives written authorization to operate. TSSWCB has certified more than 1,200 WQMPs for dry litter poultry operations, or nearly 90% of the dry litter operations in Texas. There is currently a "complaint/referral" program embodied in the MOA between the commission and the TSSWCB and this process may need some refinement. TSSWCB will work with the commission to develop any revisions that may be needed.

The commission acknowledges the efforts of the TSSWCB to develop WQMPs for dry litter poultry facilities in the state. The commission is committed to coordinating with the TSSWCB to develop a general permit that will be applicable to dry litter poultry operations in the state, and recognizes that CWQMPs may be suitable for fulfilling the technical requirements in the permit.

Existing dry litter poultry operations which become defined or designated as CAFOs as a result of the adoption of new federal and state regulations will be required to seek coverage under an individual or general permit by 2006. After the effective date of this rule, new dry litter poultry facilities that are constructed before April 13, 2006 will be required to obtain an individual permit or CAFO general permit. The commission anticipates working with the TSSWCB after the adoption of revisions to this subchapter to make revisions to the existing MOA (30 TAC §7.102) that are necessary to clarify the respective roles of the agencies in the implementation of this rule and the general permit.

TSSWCB commented that the proposed rule requires all dairy CAFOs in a major sole-source impairment zone to develop and implement a CNMP by 2006. The TSSWCB CNMP program was established in response to the implementation plan developed for the Bosque River TMDL and is restricted to the North Bosque River Watershed by rule. The North Bosque River is currently the only area identified as a major sole-source impairment zone, and the TSSWCB requests notification of other areas that may be so designated in the future. In addition, in accordance with Texas Agriculture Code, §201.006, any conservation plan developed and certified by the TSSWCB is a confidential agreement between the landowner and the TSSWCB. TSSWCB stated that information in the plan required by the commission must be obtained directly from the landowner and cannot be provided by the TSSWCB.

The commission acknowledges the efforts of the TSSWCB to assist with the development and implementation of CNMPs in the North Bosque River Watershed. The commission is committed to continued coordination with the TSSWCB to make data and information available on water

quality assessments. The commission understands and acknowledges the confidentiality conditions for conservation plans developed by the TSSWCB and will not request information in these plans from the TSSWCB. However, the commission retains the right to request information from the CAFO that will be necessary for the commission to fulfill its enforcement responsibilities to determine that the requirements of this rule are being implemented.

TSSWCB is opposed to additional restrictions and regulations for off-site, third-party land application.

The commission responds that provisions related to requirements for application of manure, litter, and wastewater to off-site, third-party fields are applicable to only to dairy CAFOs in the major sole-source impairment zone. The inclusion of these provisions is based on concerns about the potential for additional loading of pollutants that contribute to the impairment from the unrestricted application of manure, litter, or wastewater to land application areas outside the control of the permittees. Additional requirements for the management of these application areas are considered to be important as a protection for both the permittee, as well as the owner of the land.

One individual commented that the rules should work toward reducing, recycling, and eliminating the discharge of highly concentrated wastewater from CAFOs in Texas and said that rules should be written in prescriptive and enforceable manner with financial incentives for compliance where possible. The individual supported specific requirements for the Bosque River (major sole-source impairment zone), but recommended similar controls for the Leon River Watershed.

The commission agrees with the commenter that CAFO waste management should enhance the use, rather than the disposal, of manure, litter, or wastewater generated by a CAFO. The amended rule achieves this goal. Effluent limitations and operational requirements require land application or other non-discharge management of waste except in specific instances. The commission disagrees that §321.42 should apply to the Leon River Watershed because the major sole-source impairment zone is defined by state statute in TWC, Chapter 26, Subchapter L. Provisions that have been added as §321.42 of this subchapter are also based in part on recommendations in the implementation plan for approved TMDLs for the North Bosque River watershed. Current water quality data available to the commission do not suggest impairment in the Leon River due to nutrients. The commission added monitoring stations in the Leon River Watershed which will provide more data more quickly so that changes in water quality can be determined.

CCW commented that engineers and consultants should be accountable and documents submitted in support of permit applications should be subject to commission validation. CCW stated that commission verification information, permit applications and issued permits, and compliance and enforcement actions should be information open and available to the public. CCW added that all designs and plans should be required to have a professional engineer seal and that no permit renewal should be allowed without review by the commission.

The commission agrees with the comment and conducts a technical review that includes a review of certified documents to the extent possible. The rule requires certification of engineering

practices by a licensed Texas professional engineer. Other state requirements pertaining to professional qualifications and standards for work, such as engineering or geoscientist practices, are established under Texas law. The commission is the authority for permitting of CAFOs and the enforcement of this rule and permits. The commission will provide information to the public under the Public Information Act in Texas Government Code, Chapter 552, unless it is protected from disclosure by an exception to the law.

WH/MA commented that customers are complaining more about water and that the potential to lose business and customers is increasing. WH/MA supported all efforts aimed at improving taste problems with water. One individual commented that rules governing dairy CAFOs should consider active measures to protect waterways for safety in drinking supplies. The individual added that Lake Waco and Lake Belton are dependent on proper control of CAFOs and enforcement should be concerned with safeguarding the waterways that feed these reservoirs.

The commission responds that the adoption of this rule is a major achievement in assisting with the implementation of the North Bosque River TMDL. In accordance with the TMDL implementation plan, more stringent requirements for a CAFO operating in the major sole-source impairment zone as well as other implementation that addresses municipal wastewater effluent quality should result in improved water quality in the North Bosque River and in downstream drinking water sources. The statewide rule provisions applicable in the watershed of Lake Belton will maintain and protect water quality. For additional protection in a major sole-source impairment zone, the commission agrees to add a provision to §321.42 to require dairy CAFO

operators to utilize LMUs to: 1) adhere to the vegetative buffer required by §321.40(h); 2) install and maintain a filter strip or vegetative barrier, according to NRCS Codes 393 or 601, between the vegetative buffer and land application area; and 3) install and maintain contour buffer strips, according to NRCS Code 332, in the land application area nearest to the vegetative barrier or filter strip.

EPA commented that the rules are consistent with the federal CAFO regulations. EPA agrees with the requirements to be placed on CAFO waste RCSs in the North Bosque River Watershed and commented that the commission should develop an annual report on progress toward achievement of TMDL requirements for P reduction in the North Bosque River.

The commission acknowledges these comments. Progress reports on implementation of the North Bosque River TMDL, as well as the progress of other TMDLs being implemented are periodically published by the commission with some updated more frequently than once a year and are available on the commission Web site.

One individual commented about a program being developed that will combine a number of approaches for waste management which will take care of solid waste and effluents and remove P from effluents.

The commission appreciates this information. The commission supports new and innovative technologies to manage agricultural waste and the agency will pay close attention to sound alternatives of the nature described. The rules are consistent with federal regulations in allowing

flexibility for alternative voluntary performance standards which have been proven effective. The commission is working with a number of other local, state, and federal agencies to support demonstration projects which focus on new and innovative waste management procedures.

One individual requested that the commission effectively protect water resources and that rules be developed that will result in significantly improved water quality. The individual requested that the actions of the commission be conducted in public, and all data and information be made available and accessible to the public.

The commission agrees with the comment. The commission's rulemaking achieves the goals suggested. To develop this rule, the commission worked with stakeholder groups and solicited public comment on the proposals. The commission has existing processes to ensure files and information relating to facilities authorized by the agency are available to the public both at the commission's central office in Austin and in the regional offices.

One individual commented that regulations should have a sound, scientific basis and requirements should be designed to address documented problems. The commenter stated that the Bosque River may not really be impaired based on more recent data, and that requirements for operations in the Bosque River Watershed should not be more stringent than in other parts of the state. Rule requirements create an added economic burden on producers that are already under economic duress. Rules should be simplified rather than expanded and made increasingly burdensome to the producers. The dairy industry in the Bosque River Watershed is subject to more stringent rules than other areas and this is

unfair to this group. Another individual commented that the existing rules are adequate and that the additional rules do not address a specific, documented concern but only add additional, unnecessary paperwork to the operator. Additionally, this individual added that the additional paperwork may prove to be counterproductive, because operators do not see a need for it and that additional rule requirements are not needed as long as water quality is improving. A third individual commented that the TMDL development was supposed to assist with providing the information needed to improve water quality and that the TMDL process has been used to add unnecessary requirements for the operators.

The commission agrees with the comments regarding reliance on proven technologies for the management of manure, litter, and wastewater. As noted in the response to comments previously and in a number of responses that follow, the commission has enumerated instances that illustrate the reliance on documented research and consultation with specialists from universities and other state and federal agencies. The commission acknowledges that recent water quality data is showing promising trends of improvement in the North Bosque River, but notes that the referenced data is not sufficient to identify long-term changes in water quality. The adopted WQMP applicable to this watershed and the additional stringency of requirements are still necessary to ensure continued restoration and long-term maintenance of water quality standards. The commission and other state and federal agencies developed and are implementing a water quality monitoring strategy aimed at evaluating any long-term changes in water quality due to implementation of the requirements of this rule and other activities in the watershed aimed at protection and improvement of water quality.

One individual expressed concern about inconsistencies in rule interpretation and enforcement actions. "Each inspection brings new requirements." The commenter stated that rules change too rapidly and do not allow producers sufficient time to implement requirements. The commenter added that there have been four sets of rules for the Bosque River Watershed in the last five years and that the rules keep expanding. A second individual commented that the rules are not being enforced consistently, and that enforcement actions are not strong enough for dairy operators that do not follow the rule. Additionally, the second individual commented that other dairies are being forced to follow more stringent requirements because enforcement actions are misdirected. TAD commented that there have been four sets of rules over the past ten years and that changes in rules are taking place before results of previous rules are known. TAD also commented that rule changes should be based on sound data and data analysis and that there should be some time allowed for rule implementation before rules are changed.

The commission responds that current revisions to the rules were required because of changes to the federal regulation related to CAFOs (effective April 13, 2003). The commission is responsible under TPDES to adopt new and revised federal regulations within one year of the EPA change. Additionally, some of the proposed rule changes will assist in implementing the approved TMDLs for the Bosque River Watershed. The commission also notes that some of the changes that have been made to the rule over the past several years were based on changes in state legislation. The agency is obliged to re-authorize TPDES permits every five years and to include necessary water quality requirements within them. In many instances, the amended rule is clearer and better organized, which should provide for more consistent enforcement by the commission.

Judge Cox commented that the economic impact of the rules is not limited to producers or to Erath County. Other businesses and other areas also are impacted economically. Hamilton and Comanche Counties are impacted. Judge Cox further commented that the agency needs to recognize new technologies to deal with animal waste. Additionally, Judge Cox commented that the agency does not seem to be aware of research using enzymes that is being conducted in the State of Kansas. Judge Cox added that changes in rule requirements is a problem and requirements should have a sound, scientific basis.

The commission responds that it recognizes that the successful implementation of regulations to address protection of environmental resources is directly related to a demonstration that technical requirements are based on scientifically defensible principles and can be implemented without creating an undue economic burden on the permittee or other businesses affected by the regulation. The commission is very supportive of the development and application of new and refined technological, economical approaches which assist with the accomplishment of the goal of environmental protection. The agency is providing financial and technical support to the evaluation of technically sound, economically achievable processes that will contribute to the successful implementation of the regulations. Some of the demonstration projects include testing the efficacy and efficiency of enhanced microbial populations which rely on enzymatic reactions to reduce or restructure waste material so it can be used in a beneficial manner.

One individual commented that applications are being processed by the agency with incorrect information about the facility being permitted; buffer distances between RCSs and sizes of these

structures are not accurate in the application documentation; and dairy expansion was allowed even though information in application was incorrect and the operator's compliance history was not good.

The commission responds that it has processes in place to ensure permit applications are reviewed based upon information that the permit applicant certifies to be accurate. However, if an interested person believes the executive director is basing a permit recommendation on inaccurate information, the commission welcomes comment and challenge of the basis during the permitting process. Once a permit is issued, there are inspection and citizen complaint procedures that can be initiated.

One individual commented that dead animals are not being disposed of properly and inspection response to complaints and requests for assistance are not adequate.

The commission did not make a change to the rules in response to this comment. In this rulemaking, the commission revised the animal disposal requirement in §321.36(l) from disposal within 72 hours to collection within 24 hours of death and proper disposal within three days of death. Additionally, the commission added a reference to specific requirements for diseased animal disposal in the same subsection.

The commission responds that it developed detailed procedures for handling complaints and requests for assistance by members of the public. These procedures are discussed with regional and headquarters staff in required training programs and are subject to periodic internal review.

Specifically, the commission regional staff conducts inspections based on citizen complaints in order to enforce the agency's regulations and permits. The regional offices prioritize their complaint responses based on the potential threat to human health and the environment. Additionally, the Stephenville field office has a policy to respond to complaints 24-hours a day, seven days a week, and within two hours of receiving the complaint, where feasible.

One individual commented that the agency should not allow lawsuits or threats for lawsuits under the citizens' suit portion of the Clean Water Act to control activities related to this rule, and that negative political statements and negative, politically motivated press coverage are a concern.

The commission acknowledges this comment. The commission responds that this rulemaking cannot abridge or limit the provisions of the federal Clean Water Act.

One individual requested that rule changes be limited so that permits could be issued because the commenter has been trying for three to four years to get a new permit issued for a facility in the Goose Branch area of the Upper North Bosque River and has had to publish notice four times. The commenter is concerned about land values in the area and recently learned that the value of property is lower if the property is used as a dairy.

The commission notes the comment. The commission acknowledges that development of the TMDLs and implementation plan for this watershed, the changes in state statute which affect this watershed, and the changes in the federal regulation have created some confusion for operators

affected by this rule. These actions have also affected the processing of permits for this area. It is anticipated that changes made in this rule will help to clarify requirements for waste management and will assist the operators to obtain appropriate authorizations more efficiently. It is also recommended that the commenter contact the Wastewater Permits Section of the commission's Water Quality Division for specific questions related to the processing of permits. The adopted amendments will protect human health, safety, and the environment as required by TWC, Chapter 26. The commission does not anticipate the amendments will reduce land values. Most importantly, TWC, Chapter 26, does not authorize the agency to use land value as a factor in the water quality permitting process.

Dublin EDC commented that the commission should consider the economic impact of the rules on the stability of rural communities. Dublin EDC stated that a rural economy is relatively unstable and rules which create additional economic burden may destroy rural communities.

The commission responds that the rule proposal included a fiscal note that analyzed the issues of concern to the commenter. The commission must ensure surface water quality is attained where presently impaired. The commission's policy stated in TWC, §26.003, requires certain water quality goals be met. The commission is establishing more stringent requirements in the major sole-source impairment zone and requirements from the federal CAFO rule, but there are several opportunities for financial and technical assistance to aid in compliance with the rule. These include cost share funds through the United States Department of Agriculture's Environmental Quality Incentive Program (EQIP), incentives for composting of CAFO manure through the

EPA/commission nonpoint source pollution grant program, and assistance from both the NRCS and TSSWCB.

TAD commented that the rules changes should be based on sound data and data analysis and that there should be some time allowed for rule implementation before rules are changed. TAD added that conditions in the Bosque River Watershed are improving and that data provided from the Texas Institute for Applied Environmental Research (Institute) show that soluble reactive P concentrations and loadings are less in 2001 - 2003 than prior to 2000. One individual commented that time for implementation of the rule requirements should be provided and that results of some of the requirements such as nutrient management may not be immediately evident and instant gratification not possible with complex systems.

The commission acknowledges this comment. The commission agrees that time should be allowed for implementation of rule changes, but notes that federal regulations adopted under the federal Clean Water Act establish a five-year term for permits issued in accordance with this rule. It is further noted that some of the historical changes in this rule have been mandated by changes in state statutes and are not under the control of the commission.

The commission acknowledges the water quality data from the Institute; however, the Institute indicated that the data provided is raw data and has not been evaluated sufficiently to be represented as an official conclusion of the Institute. The commission is encouraged by the apparent trend in water quality improvement and has developed procedures to collect and assess

additional water quality data from the North Bosque River Watershed which should provide the basis for a determination of changes in water quality in this watershed. The commission is working closely with the Brazos River Authority, the Institute, the City of Waco, the TSSWCB, the Texas Cooperative Extension, the NRCS, the City of Stephenville, the City of Clifton, and others to coordinate the evaluation of effectiveness of a number of projects in the watershed which support regulatory requirements and contribute to water quality improvements.

TAD also commented that the Agriculture Producer Certification Option (APCO) has 90 - 95% participation in this watershed and that this is a voluntary program that involves a third-party evaluation of the facility. TAD added that this program will add sound environmental stewardship to each facility and to the industry and this goes beyond the requirements of the commission.

The commission acknowledges these comments.

TAD commented that the commission should conduct public meetings for new and expanded facilities applying for the general permit, not the owner/operator.

The commission acknowledges this comment and will consider it during the development and comment period for the CAFO general permit.

TCFA requested that the commission not change draft language to accommodate EPA requests.

The commission acknowledges the comment and will evaluate any comments received based on its merits regardless of who submitted the comment.

Mayor Ethridge and Waco commented that the commission should do their part to assist the city in meeting these standards by cleaning up the raw water supply.

The commission responds that when it approved the North Bosque River TMDL Implementation Plan, it put in place a plan to substantially restore the water quality of the river. Technical requirements in the adopted rules will assist in implementing TMDLs for the Bosque River Watershed. Provisions in the rules are intended to help achieve the goals set by the TMDL Implementation Plan and prevent additional impairment of the water quality in the Bosque River.

Mayor Ethridge and Waco commented that pathogens are another issue of concern and that preliminary data from the Lake Waco study shows that pathogens peak with wet weather flows.

The commission responds it is aware that in most rivers and reservoirs, bacterial indicators used as criteria to determine use support for contact recreation usually become elevated during wet weather conditions. However, no reservoir assessed for purposes of the commission-approved 2002 303(d) list was found to have impaired contact recreational uses. This includes Lake Waco.

Mayor Ethridge and Waco commented that the rules and standards for compliance are unclear. Mayor Ethridge and Waco said that the rule requirements include a PPP, CNMP, NMP, and a NUP and that

references to so many documents, including guidance documents makes it difficult to interpret and enforce the rule. Mayor Ethridge and Waco also commented that rule requirements are based on guidance documents, which are subject to change without notice to interested parties and that changes to these guidance documents can effectively change the requirement of the rule.

The commission responds that the amended rule adds clarity that was accomplished through significant restructuring of the provisions. The commission took efforts to make clear what plan is required and when it should be implemented. As in other rulemakings, the commission believes it is appropriate to specify additional guidelines that are acceptable and is confident that future changes (if they occur) to guidance documents will be based upon available science and up-to-date information. It is typical for the executive director to interact and coordinate with other state and federal agencies in the development and approval of guidance documents, to help ensure a sound basis for the guidance.

The PPP is a plan that documents all pollutant sources, BMPs to address pollutants, recordkeeping logs, and other information regarding the design, operation, and maintenance of the CAFO. Nutrients are pollutants and as such, the management of these nutrients is discussed in the PPP.

The CNMP is a whole farm plan that addresses nutrient management from the origin in the feed rations to final disposition. The CNMP satisfies portions of the PPP and exceeds the federal requirements for NMPs.

The NMP is a component of a CNMP and addresses only the land application of nutrients on LMUs. The NMP is an NRCS Practice Standard Code 590 which is used to determine the application rates for each LMU.

The NUP is a short-term management tool that is developed for a specific LMU if the soil P level exceeds the critical soil P. Once the LMU soil P level drops below the critical soil P level, land application practices will transition to the requirements of the NMP.

Mayor Ethridge and Waco commented that the proposed rules effectively abdicate the commission responsibility to control waste and wastewater application by leaving it to the NRCS to determine how much waste may be applied.

The commission does not agree that reliance on the expertise of the NRCS related to land application practices constitutes an abdication of enforcement responsibilities. The numerical criteria established for soil test P and the management practices required in these rules provide the commission significant bases for enforcement actions. While the NRCS specifications are written as guidelines, significant portions of the guidelines are embodied in this rule providing the needed authority which the commission can base enforcement actions. EPA stated in the *Federal Register*, relating to the federal CAFO rule, that the permitting authority may use the United States Department of Agriculture-NRCS Nutrient Management Conservation Practice Standard (Code 590) or other appropriate technical standards as guidance for the development of applicable technical standards. Any deviation from the NRCS specifications must be documented by the

nutrient management specialist with specific details and justifications. This documentation must be kept on site with the PPP.

The commission reviews permit applications and develops and issues permits governing waste management at a CAFO. It has a specific inspection and compliance strategy to ensure permit requirements are being met by the CAFO operators. This rule requires several plans that are subject to commission review. The commission receives reports from CAFOs that identify soil sampling results and annual reports describing waste management among other requirements. The commission appreciates the technical assistance the NRCS offers CAFO operators.

§*321.31. Manure, Litter, and Wastewater Discharge and Air Emission Limitations*.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.31(a) should be revised by inserting "or adopted" after the phrase "or other authorization issued" in the first sentence.

The commission agrees to add the words "or adopted" as suggested by the commenters. This change will clarify that an authorization by rule is based upon a rule adopted by the commission.

CCC, TCFA, TSGRA, TPPA, and TFB commented that this subsection should contain recognition of exceptions and recommended inserting a new sentence in adding to §321.31(a) that states: "A discharge that is the result of a chronic or catastrophic rainfall event, or the result of catastrophic

conditions, from an RCS that has been properly designed, constructed, operated, and maintained is allowed."

The commission disagrees with the need for the revision since the first sentence of §321.31(a) recognizes that exceptions to the "no discharge" standard will exist in permits issued by the commission. The exception also exists in §321.47(c)(3), relating to the authorization by rule for an AFO that is not a CAFO.

§321.32. Definitions.

Mayor Ethridge and Waco commented that in §321.32 the definition of NRCS has been removed. The definition should make it clear that practice standards are those adopted by Texas NRCS.

The commission responds that the definition has not been removed. It has been renamed and relocated to United States Department of Agriculture (USDA) - Natural Resource Conservation Service (NRCS). The commission acknowledges that when an AFO operator uses a specific NRCS practice standard, the Texas NRCS standard is to be followed.

OPIC supports the deletion of the "no discharge" definition.

The commission acknowledges this comment.

Mayor Ethridge and Waco commented that in §321.32(1) the definition of "Agronomic rates" requires clarification. Agronomic rate for nitrogen and P differ and this difference should be recognized. The commenters stated that a qualifier should be added - "as long as the soil phosphorus concentration in a major sole-source impairment zone does not exceed the level necessary to ensure that the crop requirement for phosphorus is met." They also noted that language from an earlier draft is preferred - "an agronomic rate is one 'which will' enhance soil productivity. . .."

The commission did not change the rule in response to this comment because the definition of "Agronomic rate" acknowledges the need to determine application rates in accordance with an NMP. Each plan includes a determination of the nitrogen and P needs that are specific to the LMU and to the crop.

Mayor Ethridge and Waco requested to delete "A land management unit is not part of an AFO" in §321.32(3) because this is not in the federal rules or the existing Subchapter B rules.

The commission responds that the purpose of this statement is to explain that the portion of the AFO that is subject to point source regulations is the control facility, which does not include LMUs. The commission did not change the rule in response to this comment.

Mayor Ethridge and Waco requested to add the following sentence to §321.32(6): "Application of manure or wastewater to soil in which the soil phosphorus concentration exceeds the level necessary to

ensure that the crop requirement for phosphorus is met shall not be considered a beneficial use in a major sole-source impairment zone"

The commission disagrees because this definition is applicable statewide. The definition of "Beneficial use" includes the requirement for agronomic rate which is based on an NMP. The NMP considers the soil P concentrations in determining the appropriate application rate for manure and wastewater, consistent with state and federal requirements. The commission declines to make this change.

TCE requested to add the "–" after "Beneficial use" in §321.32(6).

The commission agrees that the "-" was inadvertently omitted from the published version and will be reinserted. The commission agrees to make this change.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.32(8) should be revised by deleting the phrase "other than rainfall events" at the end of the definition of "Catastrophic conditions" to recognize that severe rainfall can be a naturally occurring event that could constitute a catastrophic condition. The commenters stated that this phrase is not in the federal regulation and is more restrictive than what is contained in existing rules.

The commission responds that rainfall events that are chronic or catastrophic are defined separately for distinction in the applicability of this rule. The commission included the definition

for "Catastrophic conditions" to recognize that there may be situations other than rainfall beyond the control of the AFO operator that may cause damage to the facility and affect the waste management system. The commission addressed the catastrophic rainfall event in another definition. The commission disagrees that this definition is more restrictive than the current rules and does not envision any additional restrictions on AFOs from the current interpretations as a result of separating the definition of "Catastrophic conditions" from catastrophic/chronic rainfall. The commission declines to make this change.

OPIC commented that in §321.32(8) the rules do not define "facility" and the rules should be clear that conditions are catastrophic only when they result in damage to the "control facility."

The commission agrees to replace the undefined term "facility" with the defined term "AFO." The commission declines to use the term "control facility" because that would limit the applicability to other portions of the rule.

TCE wants to add "in Texas" at the end of §321.32(9).

The commission agrees to make this change because the commission is aware that considerable effort has been expended to establish agreements between the NRCS and professional organizations in Texas to qualify individuals within those organizations to develop and certify conservation plans on behalf of the NRCS.

Mayor Ethridge and Waco commented that the numeric definition for the "Chronic or catastrophic rainfall event" had been removed and should be included in §321.32(10). The chronic rainfall event for the major sole-source impairment zone needs to be clearly defined as the 25-year, ten-day event to ensure protection from the improper use of the SPAW model.

The commission responds that this definition is applicable statewide. The chronic or catastrophic rainfall event varies both across the state and by animal type. Therefore, it would not be appropriate to establish a specific numerical standard for this definition based on a specific geographic area to be applied on a statewide basis. The rainfall event for a major sole-source impairment zone is referenced in §321.42 (c), relating to the major sole-source impairment zone. The commission declines to make this change.

OPIC commented that this definition is not clear that discharges under chronic events should be allowed only if the discharge could not have been prevented with proper management practices. OPIC recommended the following definition in §321.32(10): "A series of wet weather conditions that preclude dewatering of a properly designed, operated, and maintained retention control structure. To be considered a chronic or catastrophic rainfall event, rainfall conditions must be equivalent to or greater than the required design rainfall event."

The commission responds that the chronic or catastrophic rainfall event definition is consistent with existing state and federal language. Other provisions in this rule address the issue of proper operation and maintenance. The rule has been expanded to more clearly define these

requirements and to include additional record keeping requirements associated with the operation and maintenance of waste management facilities.

TCE wants to add "(CNMP)" after "plan" in §321.32(12).

The commission agrees to add this acronym to the definition and clarify that the general criteria for CNMP development is located in the NRCS National Planning Procedures Handbook, Part 600.54, Subpart B.

NRCS requested to delete "combined into a" and replace it with "implemented in a" in §321.32(12).

The commission agrees because the environmental benefits are only derived by the implementation of the plan, as indicated by the commenter. The commission agrees to make this change.

NRCS commented that the definition in §321.32(13)(B) is difficult to understand and suggested deleting all language between "either….operation:".

The commission declines to make this change because the proposed definition is consistent with federal CAFO regulations.

Mayor Ethridge and Waco commented that in §321.32(13)(D) additional language should be added indicating that the requirements in §321.36 will also apply to state-only CAFOs in a major sole-source impairment zone.

The commission responds that §321.32 is specifically for defining the terms used in the rule and the rule is applicable to AFOs throughout the state. The operational requirements and standards for compliance are found in other sections of the rule. The commission declines to make this change.

TCE wants to delete "concentrated animal feeding operation (CAFO)" and add "CAFO" in §321.32(21).

The commission declines to make this change. The first time that a term is used in a section in a commission rule it is spelled out. The commission responds that the rule presentation style adopted by the commission stipulates that terms be spelled out in each definition to ensure clarity, even if they have been used in previous definitions. The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.32(24) the term should be defined as: "The application to land of manure, litter, or wastewater generated by an animal feeding operation, including its incorporation into the soil mantle for beneficial use."

The commission agrees that land application is the act of applying manure, litter, or wastewater to land, but disagrees that incorporation is the only methodology for land application. The commission agrees to rephrase the definition to clarify that land application is the act of applying manure, litter, or wastewater to land; however, the commission declines to limit land application to incorporation only.

OPIC commented that in §321.32(26) letters of consent should not be considered acceptable demonstrations of buffer distance compliance with regard to schools or public parks. OPIC continued that in the case of schools and parks, it is the general public who will be affected. For schools, the affected persons have no choice but to enter the location, and due to their age, are particularly susceptible to the harmful impacts of pollution. OPIC suggested the term should be defined as: "A document signed by the owner or authorized legal representative of the owner(s) of an occupied residence, occupied business structure, or place of worship specifically consenting to location and operation of permanent odor sources of an animal feeding operation within the minimum buffer distance required under §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFOs))." OPIC suggested as an alternative to this definition, that the rules specify which persons would be qualified to sign the letter for school or park.

The commission disagrees that written consent agreeing to location and operation of permanent odor sources within the minimum buffer distance should not be accepted from schools or public parks. The commission supports preserving the opportunity for any neighboring receptors to

choose to withhold consent, to choose to consent, and to choose to engage in private agreements to negotiate terms acceptable to both the source of odors and to the neighboring receptor.

However, the commission agrees that in the case of schools and public parks, additional protectiveness is desirable to ensure awareness, by both the landowner and the governmental entity charged with operation of the receptor, of the location and operation of permanent odor sources at an AFO within the required minimum buffer distance. Therefore, the rules have been modified to require written consent from both the owner of the land containing the receptor, and the governmental entity responsible for operating the receptor, when permanent odor sources are located within the minimum buffer distance of a school or public park.

NRCS commented that in §321.32(28) a liquid waste handling system should include a system of pumps, pipelines, sprinklers, and other appurtenances used to transport and land apply liquid waste.

The commission agrees that a liquid waste handling system includes appurtenances associated with transportation and land application of liquid waste. The commission revised the rule in response to this comment.

TCE wants to add “Code” before “590" in §321.32(33).

The commission agrees with this comment because the correct name of this Practice Standard includes the word Code. The commission agrees to make this change.

Mayor Ethridge and Waco commented that in §321.32(36) the definition of 100-year flood plain is not the definition used by the Federal Emergency Management Agency or the United States Corps of Engineers or Chapter 301 and suggested that the definition in these rules should be changed to match the others. OPIC commented that in §321.32(36) it is not appropriate to limit relevant storm event to only a 24-hour storm. OPIC commented that the rules should use the same approach as has been adopted in 30 TAC Chapters 297 and 309 and that this change will make this definition consistent with Chapters 297 and 309, and 30 TAC Chapter 317.

The commission agrees that the definition of 100-year flood plain should be consistent with other commission rules and has revised this definition.

OPIC commented that the definition in §321.32(43) is not consistent with the federal definition of process generated wastewater. OPIC suggested eliminating the phrase "which comes in contact with waste" which would make it more consistent with the federal rule.

The commission responds that the term is generally consistent with the federal term because it captures the main sources of wastewater at the AFO. Water which comes into contact with waste is included because it has the most potential for environmental impact. The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.32(47) the second sentence should read as follows: "An RCS does not include conveyance systems such as irrigation piping or ditches that are designed and maintained to convey manure, litter or wastewater for purposes other than storage."

The commission responds that the definition is adequate to define an RCS. The commenters' language is consistent with the proposed language in that conveyance systems must be designed and maintained to convey, and not store, manure, litter, or wastewater. The commission declines to make this change.

CCC, TCFA, TSGRA, TPPA, and TFB recommended that "Significant CAFO expansion" should only include those facilities proposing to increase waste production by more than 25% within any 12-month period.

The commission agrees that the definition of significant CAFO expansion should include a time frame to prevent the stacking of expansions that would exceed 25%, and thus circumvent the public participation process for new or significant CAFO expansions. This recommendation could be interpreted to allow a CAFO to expand up to 144% during the term of a general permit without providing notice to the public. Therefore, the commission agrees to change this definition to allow an expansion of waste production to no more than 50% during the five-year term of a general permit.

TCE suggested adding"–" after "expansion" in §321.32(48).

The commission agrees that the "-" was inadvertently omitted from the published version and will be reinserted. The commission agrees to make this change.

OPIC commented that in §321.32(48) the commission has not justified the limit of 25% increase to define significant expansion. OPIC requested that the commission clarify how the increase in waste production will be measured. OPIC stated that Arkansas uses 10%. OPIC requested that the definition should be changed to: "Any change to a CAFO that results in a greater than ten percent cumulative increase, above that quantity last permitted with public notice, in: (A) the volume of animal waste, as excreted, generated by the facility; or (B) the land application area; or (C) the total volumetric capacity of all retention control structures at the facility." OPIC commented that if these factors in paragraphs (A) - (C) are relevant when determining the significance of an expansion operating under an individual permit, they should also be considered relevant when judging the significance of an expansion under a general permit.

The commission responds that the waste generated at a facility has the most significant potential to impact the environment and the general public. The proposed definition could be interpreted to allow a CAFO to expand up to 144% during the term of a general permit without providing notice to the public. Therefore, the commission agrees to change this definition to allow an expansion of waste production to no more than 50% during the five-year term of a general permit.

The commission provided public notice and an opportunity for public comment on the CAFO general permit as provided in TWC, §26.040. The commission is not required to provide public

notice for facilities that apply for individual coverage under the general permit. The commission has the discretion to determine if public comment is appropriate for individual NOIs. The commission declines to make this change.

NRCS suggested deleting "liquid" and replacing it with "slurry" in §321.32(49).

The commission agrees with this comment because the term "liquid" is more applicable to wastewater than sludge. The term "slurry" is more closely associated with sludge and the intent of the definition. The commission agrees to make this change.

NRCS commented that in §321.32(53) 25-year, ten-day rainfall event not in Technical Paper 40, but in United States Department of Commerce, Weather Bureau, Technical Paper 49, "Two-to-Ten-Day Precipitation for Return Periods of 2 To 100 Years in the Contiguous United States", 1964. Mayor Ethridge and Waco commented that in §321.32(53) the 25-year, ten-day rainfall event is defined by the National Weather Service in Technical Paper 49, "Two-to-Ten-Day Precipitation for Return Periods of 2 to 100 Years in the Contiguous United States" (1964).

The commission agrees with this comment and revised the definition to incorporate the correct reference.

TCE suggested adding "(USDA)" after "United States Department of Agriculture" and "(NRCS)" after "Natural Resources Conservation Service" in §321.32(55).

The commission agrees with this comment and made this change.

§321.33. Applicability and Required Authorizations.

TPF commented that individual permits should be required for dry poultry operations only on a case-by-case basis in §321.33. TPF additionally commented that there is no circumstance under which an individual permit should be required across an entire drainage basin for dry litter operations. One-hundred and eighty six individuals commented that individual permits for boiler/breeder operations should be required only on a case-by-case basis and not across an entire drainage basin in §321.33.

The commission agrees that there is no circumstance under which this is currently required across a drainage basin for dry litter poultry operations. However, the commission is responsible for maintenance of water quality in Texas and may find it appropriate to designate a drainage basin as impaired, and then implement a watershed-based plan that would aim to improve water quality. Under §321.33(b), the commission may need to address specific sources of pollutants in a watershed through permit requirements. This subsection lists certain CAFOs that must obtain an individual permit based on statutory requirements and a CAFO's location. The commission will consider whether other CAFOs must obtain an individual permit on a case-by-case basis unless required by §321.33(b). Section 321.33(f) requires existing dry poultry operations to obtain an individual or general permit before April 13, 2006.

Sierra Club commented that individual permits should be required for all CAFOs in watersheds included on the 303(d) list of impaired water bodies. Sierra Club stated that new or expanding CAFOs located near impaired water bodies should be subject to same requirements as CAFOs in the Bosque River Watershed. Regarding §321.33(a)(4), OPIC commented that a CAFO should not qualify for a general permit if it is located in any watershed of a segment listed on the 303(d) list for bacteria, depressed dissolved oxygen, nitrate + nitrite nitrogen, total dissolved solids, chloride, nutrients, excess aquatic growth, or impaired macrobenthos community. OPIC stated that the language should be changed to read: "Any CAFO where any part of the production area or land management unit is located in a watershed of a segment listed on the current United States Environmental Protection Agency approved 303(d) list of impaired water bodies, as required by 33 United States Code §1313(d) for bacteria, depressed dissolved oxygen, nitrate + nitrite nitrogen, total dissolved solids, chloride, nutrients, excess aquatic growth or impaired macrobenthos community, unless coverage under a watershed-based general permit is available." Next, one individual commented that in §321.33 new CAFOs should be prohibited from basins with streams listed as impaired for bacteria, dissolved oxygen, toxicity, and/or nutrients. In addition, EPA commented that in §321.33 the requirements of §321.42 should apply to all CAFOs in watersheds for 303d listed streams that are impaired for P and pathogens.

The commission disagrees that all CAFOs in the 303(d) list of impaired water bodies must obtain an individual permit. Any permit, general or individual, issued by the commission will include requirements to meet applicable water quality standards. Section 321.33(b)(5) allows the executive director to require an AFO to obtain an individual permit based on factors such as the location of the facility or to comply with additional requirements necessary to protect water

quality. The commission also disagrees that the requirements in §321.42 should be applied to all CAFOs located near impaired waters. The special provisions in that section are necessary to protect water quality in a major sole-source impairment zone based on TWC, Chapter 26, Subchapter L; North Bosque River Watershed Total Maximum Daily Loads and Implementation Plan; and recommendations from the "white papers" developed by a coalition of representatives from local, state, and federal agencies assembled by United States Congressmen Chet Edwards and Charles Stenholm.

The commission responds that in other areas of Texas where a new or expanding CAFO can be authorized under the general permit, the operator must comply with all requirements of the general permit that address potential effects on water quality, including such provisions as locating waste management activities outside of a 100-year flood plain, using appropriate land application practices, developing an NMP, and establishing a 100-foot wide vegetative buffer between every application area and a water body in the state.

Section 321.33 states that the CAFO may not obtain authorization under a general permit if the general permit does not include protective measures required by the TMDL and implementation plan; therefore, the CAFO must obtain an individual permit. In the development of a TMDL and implementation plan, staff identifies sources of pollutants of concern for the impairment. Staff considers nonpoint and point source discharges as part of the development process. Staff considers potential CAFO contributions to water quality impacts during the TMDL development

process for a segment impaired by pollutants of concern associated with authorized and unauthorized discharges from CAFOs.

The new or expanding CAFO must ensure additional waste retention capacity and land application areas are constructed or available, so that no additional loading or contribution to the existing impairment occurs. By expanding the RCS as necessary, no higher frequency of authorized discharge events will result from the RCS. Authorized discharges are those that result from a catastrophic or chronic rainfall event.

Mayor Ethridge and Waco commented that they support removal of the registration option and the requirement for permits to authorize CAFOs in §321.33(a).

The commission acknowledges the support to remove the registration option and to require permits for CAFOs.

TCE commented that the commission should delete "concentrated animal feeding operations (CAFOs)" and add "CAFO" in §321.33(a).

The commission responds that the rule presentation style adopted by the commission stipulates that a term, phrase, or name is spelled out at the beginning of a section of the rules to clearly define the acronym used in the remainder of the section. The commission declines to make this change.

OPIC commented that the federal rules authorize the EPA regional administrator to designate an AFO as a CAFO, so the rules should acknowledge this authority in §321.33(a)(5).

The commission disagrees with this comment. It is not necessary for the rules to refer to such authority because the executive director took the role and permitting authority of the administrator with the assumption of NPDES program responsibilities to the commission.

Mayor Ethridge and Waco commented that they support individual permits for dairy CAFOs in a major sole-source impairment zone, but recommend it include all CAFOs in §321.33(b)(2).

The commission disagrees with this comment because TWC, Chapter 26, Subchapter L addresses dairy CAFOs. Specifically, §26.502 states that this subchapter applies only to a feeding operation confining cattle that have been or may be used for dairy purposes, or otherwise associated with a dairy, including cows, calves, and bulls, in a major sole-source impairment zone.

TPF commented that §321.33(b)(3) should be revised to "Any *non-poultry* CAFO where, on the date the executive director determines that the application is administratively complete, any part of the production area of the *non-poultry* CAFO is located or proposed to be located within the protection zone of a sole-source surface drinking water supply, as required by TWC, §26.0286." Dry poultry facilities are covered and therefore should be exempt from this requirement.

The commission disagrees with this comment because TWC, Chapter 26, requires an individual permit for all CAFOs within a specified protection zone of a sole-source surface drinking water supply. Specifically, §26.0286 states that the commission shall process an application for authorization to construct or operate a CAFO as a specific permit under §26.028 subject to the procedures provided by TWC, Chapter 5, Subchapter M, if, on the date the commission determines that the application is administratively complete, any part of a pen, lot, pond, or other type of control or retention facility or structure of the CAFO is located or proposed to be located within the protection zone of a sole-source drinking water supply. Therefore, this provision applies to all types of CAFOs if the CAFO meets the description in §26.0286.

TPF commented that §321.33(b)(4) should be revised to "Any CAFO where any land management units are located in a watershed of a segment . . ." because dry litter poultry production areas are covered and there is no direct threat to surface or groundwater.

The commission disagrees with this comment. A dry litter poultry CAFO utilizes the production area and LMUs which have the potential to contribute to water quality impacts. Therefore, it is necessary to evaluate and authorize dry litter poultry CAFOs located in 303d listed water bodies under an individual permit if the general permit does not contain sufficient provisions to address the impairment.

CCC, TCFA, TSGRA, TPPA, and TFB commented that they support language as proposed in §321.33(b)(4), relating to individual permits in 303d listed segments, and consistent with an adopted

TMDL implementation plan. They also recommended that any CAFO that transports manure out of a TMDL watershed should not be required to obtain an individual permit.

The commission appreciates the support expressed in the first comment, but disagrees with the recommendation. The commission will require an individual permit if a general permit does not contain additional water quality protection measures necessary to address the impairment. If a CAFO hauls all of its manure out of a watershed, an individual permit may still be necessary to address potential discharges from the control facilities and to restore water quality.

Regarding §321.33(b)(4), Mayor Ethridge and Waco commented that any CAFO in a 303(d) listed segment should have to get an individual permit when the segment has been listed for CAFO-generated nutrients or other pollutants, not just after development of a TMDL or implementation plan.

The commission disagrees that all CAFOs in the 303(d) list of impaired water bodies must obtain an individual permit. Any permit, general or individual, issued by the commission will include requirements to meet applicable water quality standards. Prior to a TMDL and implementation plan, the commission may not have adequate information of what the significant sources are of the constituent of concern for the 303(d) listed segment. Thus, it would be inappropriate to require all CAFOs on a 303(d) listed segment to obtain an individual permit prior to the TMDL and implementation plan. However, §321.33(b)(5) allows the executive director to require an AFO to obtain an individual permit based on factors such as the location of the facility or comply with additional requirements necessary to protect water quality.

TWC, Chapters 5 and 26, provide the agency flexibility to require CAFOs to obtain either an individual permit or general permit, so long as the permit does not violate water quality standards. The draft general permit contains provisions to protect water quality such as NMPs, land application practices, vegetative buffers, design and operation of RCSs, and other BMPs. If after implementation, these requirements and others identified in the implementation plan do not result in attainment of water quality standards, then the executive director may require the CAFO to obtain an individual permit that will include additional provisions to prohibit a violation of water quality standards.

Where a new or expanding CAFO can be authorized under the general permit, the operator must comply with all requirements of the general permit that address potential effects on water quality, including such provisions as locating waste management activities outside of a 100-year flood plain, using appropriate land application practices, developing an NMP, and establishing a 100-foot wide vegetative buffer between every application area and a water body in the state.

The new or expanding CAFO must ensure additional waste retention capacity and land application areas are constructed or available, so that no unauthorized additional loading or contribution to the existing impairment occurs. By expanding the RCS as necessary, no higher frequency of authorized discharge events will result from the RCS. When the unusual circumstance of an authorized discharge from an RCS occurs, it would be associated with a chronic or catastrophic rainfall event.

LCRA commented that it is supportive of the proposed rules and believes that it is appropriate that CAFOs obtain an individual permit when any part of the production area or LMU is located in a watershed of a segment listed on the current EPA 303(d) list of impaired water bodies. However, LCRA commented that it is concerned that this requirement would not be triggered until a TMDL implementation plan is adopted that establishes additional water quality protection for CAFOs in §321.33(b)(4). If this is kept, LCRA commented that affected CAFOs should be identified and involved up front in the TMDL process.

The commission appreciates LCRA's support of the rules. As mentioned previously, any CAFO general permit will contain provisions to protect water quality such as NMPs, land application practices, vegetative buffers, design and operation of RCSs, and other BMPs. The requirements in the general permit will allow a CAFO to operate in a 303(d) listed segment while protecting water quality and not be violating water quality standards.

In the development of a TMDL and implementation plan, staff identifies sources of pollutants of concern for the impairment. Staff considers nonpoint and point source discharges as part of the development process. Staff considers potential CAFO contributions to water quality impacts during the TMDL development process for a segment impaired by pollutants of concern associated with authorized and unauthorized discharges from CAFOs.

TCE commented that the commission should delete "animal feeding operation (AFO)" and add "AFO" in §321.33(b)(5).

The commission agrees with the comment and changes the rule to delete "animal feeding operation" on the fifth line of the paragraph but inserts the term on the first line of §321.33(b)(5) before "AFO."

CCC, TCFA, TSGRA, TPPA, and TFB commented on §321.33(b) and (c). The commenters recommended that the commission clarify the applicability of subsection (g) to existing operations and to make clear that such "operations" are allowed a transition period to obtain an individual permit or general permit. The commenterss suggested that a reference to subsection (g) should be inserted into both §321.33(b) and (c). In both instances the changes should be made in the second sentence, to read, "Except as provided by subsections (e), (f), and (g) . . .."

The commission disagrees with this comment. By adding subsection (g) to these provisions the commission is concerned that CAFOs may argue that their existing facilities would be exempt from the requirement for an individual permit. Subsection (g) provides that an existing CAFO authorized under a registration may continue to operate if there is no new construction or expansion until the commission acts on the pending application. In reviewing this section, the commission agrees that subsections (b) and (c) needed to be clarified to qualify that "operation of a control facility" applies to a new control facility that will be constructed. The commission has changed subsections (b) and (c).

CCC, TCFA, TSGRA, TPPA, and TFB commented on §321.33(g) and stated that they support a general permit and requests that a general permit be developed prior to July 27, 2004 to avoid legal challenges.

The commission acknowledges and appreciates this comment. Commission staff has prepared a draft general permit. A public meeting on the general permit was held on May 4, 2004. A request for comments and notice of the draft general permit were published in the *Texas Register*. Staff will prepare a response to comments then anticipates setting the general permit for commission consideration and approval during July 2004.

Mayor Ethridge and Waco commented that §321.33(g) should be revised to require facilities in a major sole-source impairment zone that are operating under a registration to submit application for an individual permit within 60 days of rule adoption.

The commission agrees that any dairy CAFO in the major sole-source impairment zone must submit an application for an individual permit before July 27, 2004, which will be within 60 days of adoption of these proposed rules. The commission made no change to the rule in response to this comment.

TPF commented that §321.33(h)(1) should be revised for consistency with definitions for a major amendment to "increasing the maximum number of animals authorized for confinement *by over 25 percent.*"

The commission disagrees with this comment because the reference to 25% is included in the definition of "significant CAFO expansion" in §321.32(48) and does not apply to an amendment for an individual permit. Significant CAFO expansion applies to an increase at a CAFO that is authorized under a general permit and the required public participation process in §321.34(b)(3). This can be distinguished from §321.33(h) that relates to an increase in the number of animals at a CAFO authorized under an individual permit. Any increase in the maximum permitted number of animals is considered as a permit amendment. An amendment to an individual permit must comply with §305.62. The commission made no change to the rule in response to this comment.

Mayor Ethridge and Waco commented on §321.33(i) that the second sentence should be revised to read: "Nonpoint source discharges of manure, litter, or wastewater from an AFO that is not a CAFO as defined in the subchapter are authorized to occur if the AFO is in compliance with the requirements in §321.47 of this subchapter."

The commission made no change in response to this comment because AFOs must meet the requirements in §321.47 to be authorized for a discharge. Section 321.47 specifically applies to AFOs that are not defined or designated as a CAFO but that discharge agricultural waste into or adjacent to water in the state. In general, §321.47(c)(1) requires the AFO operator to locate, construct, and manage the control facility and LMUs in a manner that will protect surface and groundwater quality. Additionally, AFO operators must land apply in accordance with the detailed requirements of §321.47(f).

Mayor Ethridge and Waco commented that no runoff should be authorized from any LMU on which waste or wastewater has been applied beyond the point that actual crop nutrient needs are met. Mayor Ethridge and Waco commented on 321.33(j)(2)(A) that NRCS Code 590 and Technical Note 15 are only recommendations and not requirements. They stated that this could allow high P fields to continue to receive P application, which would allow increased pollutant loading to impaired streams.

The commission disagrees with this comment. Section 321.33(j) addresses runoff from LMUs. Specifically, the rule provides that precipitation-related runoff from LMUs under the control of the CAFO operator, where manure, litter, or wastewater is applied according to an NMP, the runoff will be authorized as: 1) a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or 2) an agricultural stormwater discharge for all other sources. However, runoff from an LMU due to precipitation can be distinguished from a discharge due to irrigation activities. Section 321.40(d) prohibits a discharge of manure, litter, or wastewater from LMUs and the discharge shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition. Additionally, irrigation practices shall be managed to prevent tailwater discharges to water in the state according to §321.40(e).

According to §321.40, CAFO operators are required to operate and land apply under a NUP for LMUs with P soil concentrations above 200 ppm. The purpose of the NUP is to evaluate the risk potential for P movement to water courses and identify strategies to reduce soil P concentrations. In many instances, implementation of recommendations in the NUP will result in lower P

concentration in the soil because of crop uptake. NRCS Practice Standard Code 590 and P index are consistent with the requirements for development of a NUP. Proper land application under a NUP will minimize potential for P to be transported from the LMU to contribute to additional pollutant loadings to an impaired stream.

While the NRCS specifications are written as guidelines, significant portions of the guidelines are embodied in this rule providing the needed authority upon which the commission can base its enforcement actions. Any deviation from the NRCS specifications must be documented by the nutrient management specialist with specific details and justifications. This documentation must be kept on site with the PPP. The commission made no change in response to this comment.

OPIC commented that in §321.33(j) clarification is needed with regard to the term "precipitation-related." OPIC suggested that the rules specify that runoff must be caused by precipitation to qualify for authorization.

The commission responds that "precipitation-related" refers to any runoff caused by rainfall or snow events. No change has been made to the rule based on this comment.

CCW commented that in §321.33(j) secondary runoff from areas not controlled by primary RCS which test for phosphorus above 500 ppm should have containment structures to retain a 25-year, 24-hour storm.

The commission disagrees with this comment because NUPs address site-specific characteristics of an LMU with a P of 200 ppm or more to ensure that the beneficial use of manure, litter, and wastewater is conducted in a manner to prevent adverse impacts on water quality. Additionally, NMPs address the amount, source, placement, form, and timing of the application of all nutrients and soil amendments on LMUs.

§321.34. Permit Applications.

CCC, TCFA, TFB, TPPA, and TSGRA commented on §321.34(b)(3) and recommended that the commission address expansion of existing CAFOs in the same manner as the EPA Region 6 General Permit, i.e., amendment of a PPP, but no additional public notice other than submission of revised NOI. CCC, TFB, and TSGRA also commented that provisions of public notice should apply only to new CAFOs or to CAFOs proposing to increase by more than 50%. TCFA and TPPA also commented that provisions of public notice should apply only to new CAFOs or to CAFOs proposing to increase by more than 25% within any 12-month period.

The commission is not required to provide public notice for facilities that apply for individual coverage under a general permit; however, the commission has discretion to determine if additional public comment is appropriate. The commission responds that the waste generated at a facility has the most significant potential to impact the environment and the general public. The commission also recognizes that the amount of waste generated and managed at AFOs is subject to variability on a daily and seasonal basis. The engineering practices and assumptions used in the

design and construction of waste management systems include allowances for such daily and seasonal variability. The commission changed significant expansion in §321.32(48) to be defined as any change to a CAFO that increases the waste production at the CAFO by more than 50% above the maximum operating capacity stated in the notice of intent during the term of the general permit.

In §321.34, OPIC commented that the federal rules require applicants for either an individual permit or general permit to supply all information required by 40 CFR §122.21(i)(1), and that the proposed rules should include the content requirements of the NOI for the general permit.

The commission disagrees with this comment because staff has prepared a draft general permit that includes the requirements from 40 CFR §122.21(i)(1). The general permit will be issued in accordance with Chapter 205 and TWC, §26.040, and applicable federal rule requirements. Therefore, the commission declines to include a reference to the federal regulation in the rules. No change was made in response to this comment.

OPIC commented that information required for an individual permit should include a county general highway map and an original United States Geological Survey (USGS) 7 1/2-minute quadrangle topographic map.

The commission disagrees with this comment because §321.34 requires an applicant to comply with Chapters 281 and 305. Specifically, §321.34(f)(1) requires an applicant to comply with

§305.45 to provide a topographic map, ownership map, county highway map, or a map prepared by a licensed professional engineer or a registered surveyor which shows the facility and each of its intakes and discharge structures and any other structure or location regarding the regulated facility and associated activities. The commission does not believe that both maps are necessary for review of an application for an individual permit. No change was made in response to this comment.

OPIC commented that §321.34 should require that the application be available to the public for a meaningful period of time with the opportunity for the public to submit comment upon the application.

The commission responds that the existing commission regulations require a copy of the application to be available to the public. First, §321.34(b) provides that notice, public comment, and contested case hearings on applications be conducted in accordance with commission rules governing applicable individual water quality permit applications. Second, 30 TAC Chapter 39 contains the applicable notice requirements for individual CAFO permits. Specifically, §39.403(b)(2)(B) states that applications for individual permits under Chapter 321, Subchapter B, are governed by Chapter 39, Subchapters H - M. Third, an applicant is required to make a copy of the application available for review and copying at a public place in the county in which the facility is located or proposed to be located according to §39.405(g). A copy of the administratively complete application must be available for review and copying beginning the first day of the newspaper publication of the Notice of Receipt of Application and Intent to Obtain a Permit and remain available for the publication's designated comment period. Furthermore, a

copy of the complete application (including any subsequent revisions to the application) and the executive director's preliminary decision must be available for review and copying beginning on the first day of required newspaper publication and remain available until the commission has taken action on the application or the commission refers the issue to the State Office of Administrative Hearings (SOAH) in accordance with §39.405(g)(2). Therefore, this recommendation is not needed.

OPIC commented that due to the prospect of multiple general permits in the future, the rules should include public participation requirements for general permits to prevent a patchwork of public participation procedures. OPIC offered a detailed example of specific notice requirements for the general permits in the rules.

The commission disagrees with this comment. The Subchapter B rules for issuance of a CAFO general permit to a new CAFO or significant expansion of an existing CAFO includes a public participation process. TWC, §26.040, and Chapter 205 do not require a public participation process to obtain authorization under a general permit. However, staff has prepared a draft CAFO general permit that contains a similar public participation process as described by the commenter. This process is intended to provide notice to the public of new CAFOs and significant expansions at existing CAFOs. Section 321.34 requires an applicant who plans a new CAFO or significant expansion to an existing CAFO to comply with the process as detailed in the general permit. Specific steps for such a process are not necessary in §321.34 because they are in the

general permit that is subject to public comment and will be considered for issuance by the commissioners during an agenda meeting.

OPIC commented that in §321.34(b)(4) the process for amending the PPP is not clear. OPIC suggested that §321.34 require submission of the revised PPP to the executive director for review. OPIC stated that amendments to the plan that are considered minor amendments should not be "stacked" such that cumulatively they may constitute a major amendment to the permit.

The commission disagrees with this comment. The existing and new amendments to these rules do not require a CAFO operator to submit revisions of the PPP to the executive director for review. TWC, Chapter 5 and Chapter 26, do not require changes to the PPP to be submitted to the agency, but the commission does review them during the compliance inspections. A CAFO operator cannot circumvent §305.62, Permit Amendments, by revising its PPP. An increase in the number of animals, construction of new buildings or structures, or adding LMUs cannot be accomplished with a simple change to a PPP. Rather, the commission and §305.62 would require a permit amendment for such activities at a CAFO.

Mayor Ethridge and Waco commented on §321.34(b)(4) that permit renewals should not be issued without public notice or opportunity for public comment. Mayor Ethridge and Waco recommended that the second sentence be revised to read as follows: "Renewal under this paragraph is allowed only if there have been no violations by the CAFO during the past 36 months of the term of the individual water quality permit in which: (A) the violation contributed to pollution of surface or

groundwater. . . ."

The commission agrees with the first part of this comment. Former §321.34(b) stated that an application for a renewal of an individual permit for a facility may be granted by the executive director without public notice if it does not propose any change which constitutes a major amendment. However, TWC, §26.028, requires that notice be given of an application to renew a permit and allows the commission to approve a renewal, without a contested case hearing under certain circumstances. The provision provides that there must be no significant increase in quantity of waste or material change in pattern or place of discharge. Section 26.028 also requires the commission to determine that an applicant's compliance history raises no issues regarding the applicant's ability to comply with a material term of its permit. The commission changed this part of the rule to require notice of an application seeking to renew a CAFO individual permit.

The commission disagrees with the second part of this comment because the adopted language meets the goals of the commission's compliance history rules in 30 TAC Chapter 60. Renewal under this provision shall be allowed only if there has been no related enforcement action against the facility during the last 36 months of the term of the permit. The commission must find that a violation occurred that contributed to pollution of surface or groundwater or an unauthorized discharge or violation of state or federal air requirement; such discharge or emission violation was within control of the permittee; and such violation could have been reasonably foreseen by the permittee. The commission has not changed the rule based on this portion of the comment.

Mayor Ethridge and Waco commented on §321.34(b)(5) that an annual compliance inspection should occur before a permit can be reviewed rather than afterwards.

The commission acknowledges this comment. The commission conducts annual inspections for all CAFOs in the dairy outreach program areas. Therefore, the commission will attempt with all reasonable efforts to conduct such inspections while the permit is under review. The commission made no change to the rule in response to this comment.

OPIC commented on §321.34(f)(2) that the rules should place the duty on the applicant to provide information required by 40 CFR §122.21(i)(1) rather than the executive director. Term "as applicable" is not clear. Subsection (f) should be replaced with: "Applications for an individual water quality permit under this section shall be made on forms prescribed by the executive director. The applicant shall submit an original completed application with attachments to the executive director at the commission headquarters in Austin, and one additional copy of the application with attachments to the appropriate commission regional office. In addition to any other information required by the executive director, the applicant shall submit the following information in accordance with this section:".

The commission disagrees with this comment. The end of subsection (f) states that the executive director will require the following information to be submitted, as it is applicable to the facility. This provision clearly states that certain information as applicable to the facility will be required. For example, §305.45(a)(7) states that an applicant must submit a list of all permits or construction approvals received or applied for under several programs that are listed. The

reference to "applicable" in subsection (f) would only require, for example, a list of hazardous waste permits if held by an applicant. No change has been made in response to this comment.

TPF commented that the recharge feature certification for dry poultry production areas and LMUs does not provide significant environmental benefit and can be a significant cost to the producer. Senator Todd Staples commented that a recharge feature certification is unnecessary for environmental protection and is an added cost to producers in §321.34(f)(3). Senator Staples supported the comments submitted by TPF. TPF also commented that §321.34(f) should be revised to state "CAFOs which provide for total coverage of animals and land apply only dry litter or manure are exempt from the requirement to develop recharge feature certification so long as the CAFO production area and all LMUs are operated in accordance with best management practices for storage and land application of dry litter or manure." Representative McReynolds commented on §321.34(f)(3) that dry litter poultry operations are required to have water quality management plans developed by the TSSWCB which include groundwater protection provisions. Therefore, they should be exempt from recharge feature certifications. In addition, Representative McReynolds stated that the cost for a recharge feature certification (approximately $5,800) is too costly for poultry farmers and unnecessary.

TSSWCB commented that it does not support the requirement in §321.34(f)(3) for recharge feature certification, as defined by the proposed rule, for any dry litter poultry operation defined as a CAFO. TSSWCB stated that buffers required as part of the certified WQMPs developed by the TSSWCB should provide adequate protection of both surface and groundwater in these poultry facilities. TSSWCB does not advocate "incorporation" as a feasible BMP for dry litter poultry operations as an

alternative to a recharge feature certification. Buffer requirements in TSSWCB WQMPs provide protection for surface and groundwater. CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.34(f)(3) should be revised by adding a second sentence "Land management units that only receive litter or dry manure and production areas that are protected from precipitation are not required to be included in the recharge feature certification." One-hundred and eighty-six commented on §321.34(f)(3) that recharge feature certification for dry broiler/breeder production areas and LMUs costs about $5000 and does not provide significant environmental benefits. Four hundred and sixty-six individuals commented on §321.34(f)(3) that recharge feature certification for dry litter poultry should not be required.

The commission disagrees that facilities should be exempt from recharge feature evaluation but acknowledges that dry litter poultry CAFOs that operate under a TSSWCB CWQMP which evaluates site-specific features that could contribute to groundwater contamination will fulfill this requirement. A permittee should locate recharge features in order to avoid certain practices in susceptible areas that may result in adverse impacts to groundwater quality. This activity protects important water resources from deterioration and should eliminate and avoid costly remedial activities that would be necessary if groundwater contamination occurred. The commission changed the rule to clarify this requirement and allow further flexibility.

OPIC commented on existing §321.38(g) indicating it is inappropriate to allow a geoscientist to carry out certain requirements that are engineering practices.

The commission responds that it has revised §321.34(f) to ensure that only appropriately qualified individuals are authorized to address the recharge features with plans that may include installation of protective measures, conducting groundwater monitoring, or plans describing other approaches to protect a recharge feature.

§321.35. Fees.

Representative McReynolds commented that the proposed fees are excessive, especially if rules are adopted that require recharge feature certification ($5800). He requested that the fees be reasonable. TPF commented on §321.35 that the annual "consolidated water quality fee" should apply only to poultry facilities with individual permits and should not be charged to those with general permits. TPF recommended that only the filing fee for general permits should be charged. One-hundred and eighty-six individuals commented on §321.35 that the consolidated water quality fee should not be required for dry broiler/breeder operations. The individuals supported a filing fee for a general permit.
Four hundred and sixty-six individuals commented on §321.35 that the water quality permit fee should not be required for dry litter poultry operations. The individuals supported a filing fee of $100 to $150 for a general permit. CCC commented that on §321.35 that it is opposed to the annual "consolidated water quality fee" because it is an expense that cannot be passed on. CCC also stated that it considers the fee unnecessary because farms are covered by a TSSWCB plan. TFB commented on §321.35 that poultry producers consider the $800 consolidated water quality fee to be excessive and a cost that cannot be recouped by the producer. One individual commented on §321.35 that the fees should be reduced or eliminated for dry poultry litter facilities which are operating under a TSSWCB CWQMP.

TWC and the agency's regulations authorize the commission to assess an application fee and annual fee assessments for CAFO general permits. First, §205.4(g) states that a person seeking authorization by a general permit shall submit a $100 application fee payable to the agency at the time of filing an NOI unless otherwise provided in the general permit or in §305.53. Second, §205.6, Annual Fee Assessments, requires a person authorized by a general permit to pay an annual waste treatment inspection fee under TWC, §26.0291, consistent with §§305.501 - 305.507, or as specified in the general permit. Section 26.0291 requires an annual water quality fee to be assessed on each wastewater discharge permit holder.

Third, §205.6 allows the commission to assess an annual watershed monitoring and assessment fee under TWC, §26.0135(h), consistent with 30 TAC Chapter 21 or as specified in the general permit.

Thus, §321.35 provides the commission with the flexibility to assess a different fee for dry poultry litter CAFOs in a general permit while still complying with the statutory requirements in TWC, Chapter 26. Therefore, the commission will determine the appropriate fees for dry litter poultry CAFOs during its consideration of that specific general permit prior to 2006.

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

TCE requested to delete "concentrated animal feeding operations (CAFO)" and add "CAFO" in §321.36(a).

The commission declines to make this change. The *Texas Register* prefers that the initial use of a word or term in each section that will be referenced to by an abbreviation or acronym be spelled out the first time it is used. The commission responds that the rule presentation style adopted by the commission stipulates that a term, phrase, or name is spelled out at the beginning of a section of the rules to clearly define the acronym used in the remainder of the section.

Mayor Ethridge and Waco commented that the requirements in §321.36(a) should also apply to state-only CAFOs located in a major sole-source impairment zone.

The commission responds that §321.36 delineates the requirements for large, medium, and small CAFOs required to be authorized under federal law. State-only CAFOs in the major sole-source impairment zone are authorized under state law. The requirements for collection, storage, treatment, and beneficial use by state-only CAFOs are generally distributed throughout the rule. The specific requirements for dairy CAFOs located in a major sole-source impairment zone are located in §321.42. The technical requirements of both state and federal facilities are comparable. The commission declines to make this change.

Regarding §321.36(b), Mayor Ethridge and Waco commented that attainment of TMDLs and 40 CFR §122.4(i) should not be left solely to case-by-case determinations during individual permitting, but

BMPs and effluent limitations should be included in §321.42 and automatically applied to all CAFOs in any 303(d) list of impaired water bodies.

The commission disagrees with this comment. By intent, 40 CFR §122.4(i) is a specific determination on whether a specific permit decision is prohibited or not. The commission will review and evaluate individual permit applications on a case-by-case basis as stated in this section and Chapter 305. During its review, agency staff considers site-specific conditions, the design of the proposed facilities, and proposed operations (including BMPs) in order to determine compliance with federal and state regulations and siting standards in the rules. Staff will prepare an individual permit that includes special provisions to maintain compliance with those regulations and standards.

Wallace commented that in §321.36(d) the application rates should be limited to a maximum of no greater than one season's use of nitrogen or P.

The commission disagrees because the NMP, required under §321.36(d)(1), establishes the appropriate application rate based on site-specific information regarding nutrients rather than setting a standard application rate for all AFOs. The commission declines to make this change.

TCE requested to add "Code" before "590" in §321.36(d)(1).

The commission agrees with this comment because the correct name of this Practice Standard includes the word Code. The commission made this change in response to this comment.

Mayor Ethridge and Waco commented that in §321.36(d)(1) NMPs should be required with all permit applications submitted in major sole-source impairment zones and should be required in the rules.

The commission disagrees that NMPs should be required with all permit applications. Section 321.36(d)(1) requires a CAFO operator to develop and implement an NMP on or before December 31, 2006. This requirement is consistent with the federal requirements of 40 CFR, Part 122 and 412. For the major sole-source impairment zone, §321.42 requires that all land application at the CAFO be performed in accordance with a CNMP that is more stringent than and includes all the requirements of an NMP. This provision will be implemented upon issuance of an individual permit for a dairy CAFO located in the major sole-source impairment zone, in accordance with §321.42(i)(5). The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.36(d)(2) the CAFO should be required to keep a copy of the NMP on site.

The commission responds that this requirement is located at §321.46 which requires the operator to keep a copy of the NMP in the PPP located on site.

OPIC commented that §321.36(d)(3) in the proposed rules does not include a requirement that a NMP identify specific records that will be maintained to document the implementation of the minimum elements described in 40 CFR §122.42(e)(1)(i) - (viii). Therefore, compliance with §§321.36, 321.38, and 321.39 does not constitute compliance with all provisions of 40 CFR §122.42(e)(1)(i) - (ix).

The commission disagrees that the rule does not satisfy compliance with federal requirements because the minimum elements listed 40 CFR §122.42(e)(1)(i) - (ix) address the management measures for the proper operation of a CAFO. These minimum elements are contained throughout these rules relating to the requirements for proper design of collection, storage, treatment, and beneficial use of manure, litter, and wastewater. The rules also contain requirements for proper carcass disposal and recordkeeping to document the implementation of management practices. Specifically, §321.46 contains the recordkeeping requirements to meet the elements of 40 CFR §122.42(e)(1)(i) - (ix). Additionally, EPA stated that the amended rules comply with the new federal CAFO rules. The commission declines to make any change to the rule language.

NRCS requested to add "The operator shall employ sampling procedures using accepted techniques of science for obtaining representative samples and analytical results" to §321.36(e)(1). TCE suggested that the commission require at least quarterly samples for manure and wastewater and that the commission develop sampling guidance with input from TCE.

The commission agrees that the operator shall employ accepted techniques of science for obtaining representative samples and analytical results. The commission agrees to coordinate with TCE and NRCS to develop a regulatory guidance document to clarify the standards and frequency for collection and analysis of representative manure, litter, and wastewater samples. The commission made no change to the rule in response to this comment.

Mayor Ethridge and Waco commented that in §321.36(e)(2) the log of waste or wastewater that goes to third-party fields should include the name of hauler.

The commission responds that this provision is consistent with federal rule which requires the name and address of the recipient, not the hauler. The destination of the manure, litter, and wastewater is more pertinent in evaluating environmental impacts than simply knowing the name of the transporter. The commission declines to make this change.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.36(e)(2)(B) should be revised to clarify the term "recipient" for use in areas outside major sole-source impairment zones. Recipient should be defined as the first person who receives the material for off-site land application. The rule should not extend regulatory oversight to third-party fields not owned or operated by the CAFO. The commenters oppose any additional restrictions or regulations for off-site third-party land application.

The commission responds that this provision is consistent with 40 CFR §122.42(e)(3), which requires the name and address of the recipient. The federal rule does not define recipient as the

first person who receives the material for off-site application. The commission does not intend to extend regulatory oversight to third-party fields or any additional restrictions on fields not owned, operated, controlled, rented, or leased by the CAFO. However, §321.42 requires additional restrictions for third-party fields located and operated in the major sole-source impairment zone, but those requirements do not extend statewide. The commission declines to make any change to the rule.

NRCS commented that in §321.36(e)(2)(C) wastewater volume should be expressed as acre-feet or acre-inches rather than cubic yard.

The commission agrees that the volumetric units for wastewater should be added. The commission has made this change in response to this comment.

NRCS commented that §321.36(f) should be moved to §321.40, Land Application Areas.

The commission disagrees because §321.36 includes all requirements associated with federally authorized CAFOs. The commission declines to make this change.

TCE commented that §321.36(g)(1) should list RG-408 here similar to subsection (g)(3)(A).

The commission responds that the methodology for collecting the initial sample references the provision for collecting the annual sample, which includes the requirement to use RG-408 Soil Sampling for Nutrient Utilization Plans. The commission declines to make this change.

Waco commented that §321.36(g)(1) should require soil samples to be collected and analyzed for all LMUs annually regardless of whether waste application occurred the previous year.

The commission disagrees that the CAFO must collect and analyze soil samples in years when the operator does not apply manure, litter, or wastewater to the LMU. The expense for sampling and analysis of soils in the unused LMUs is not justifiable because prior to restarting land application of manure, litter, or wastewater to a field, an initial soil sample must be collected and analyzed to determine nutrient content. The commission declines to make this change.

One individual commented that §321.36(g)(2) should not require more soil testing/analyses than required for a dry litter poultry operation covered by a TSSWCB WQMP.

The commission disagrees that dry litter poultry operations should be allowed to collect soil samples less frequently than other CAFOs. The soil nutrient concentrations can vary from year to year. The operator needs to sample each field annually, to monitor soil nutrient concentrations, and to calculate the agronomic rate. The commission declines to make this change.

CCW commented that in §321.36(g)(3) soil sampling should be limited to the top two inches for irrigated fields or fields where solids are not incorporated. Wallace commented that in §321.36(g)(3) the rules should limit soil testing for nutrients to the top two inches of soil.

The commission disagrees that a zero to two-inch sample should be required for all LMUs. The potential for impact to water quality from LMUs is more pronounced from LMUs that have had manure or litter land applied on the surface. Unincorporated solid material is more prone to stormwater influence than manure, litter, or wastewater that are located in the soil mantle profile at a depth of greater than two inches. Therefore, the rules require a sample of zero to two inches only for fields that have had topically applied manure or litter. In agricultural soils, the infiltration rate normally allows wastewater to migrate to depths greater than two inches. Therefore, as required by the rules, nutrients should be analyzed in Zone 1 from zero to six inches. The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.36(g)(3)(D)(i) wastewater application should not be considered "incorporated" and soil tests should be made in zero to two-inch zone when wastewater is applied.

The commission disagrees because in agricultural soils, the infiltration rate normally allows wastewater to migrate to depths greater than two inches. Therefore, as required by the rules, nutrients should be analyzed in Zone 1 from zero to six inches. The commission declines to make this change.

TCE requested that §321.36(g)(4) list ICP with P and add "ppm" after "soluble salts." TCE stated that ICP will analyze for all forms of P in the extract.

The commission added ICP as the analytical procedure to make a more accurate determination of the P content of the soil. The commission agrees that the ppm unit for P and soluble salts should be listed in the rule and has made this change.

TCE requested to delete "shall must" and use the appropriate term in sentence in §321.36(i)(5). OPIC also commented that §321.36(i)(5) has both "shall" and "must" in the provision. The provision read: "The CAFO operator must comply with the land application area recordkeeping requirements . . .."

The commission agrees that the sentence is grammatically incorrect and has corrected the language.

TPPA and TCFA commented that language should be added to §321.36(j)(8) to recognize that some facilities have LMUs that have never received manure, litter, or wastewater. TPPA and TCFA recommended language to read "a copy of the baseline soil analysis for each LMU. The baseline soil analysis is to be documented prior to the first application of manure, litter or wastewater."

The commission agrees that the initial soil sample analysis for each LMU is more representative of the nutrient concentrations in the soil prior to commencing or restarting land application. The commission agrees to revise the annual report requirement to include the "initial" soil analysis

rather than the "original" soil analysis. The term "initial sampling" is used in §321.36(g)(1). It is not necessary to submit this sample annually unless the initial sample is replaced with another initial sample for the baseline measurement for the LMU.

OPIC commented that in §321.36(k) the proposed rules do not include a pond marker indication requirement for minimum treatment volume. OPIC commented that this is an unwarranted substantive change in the requirements of the CAFO air standard permit.

The commission agrees that RCSs designed with a minimum treatment volume to meet the requirements of §321.43(j)(3)(B), should have a permanent pond marker indicating the minimum treatment volume and that the minimum treatment volume must be maintained. These provisions are in the current Chapter 321, Subchapter B, rules but were inadvertently left out of the proposed rule and will be reinstated. The rule was changed to add this pond marker requirement to §321.36(k), and §321.43(j)(3) was revised to require that the wastewater treatment system is operated in accordance with design.

TCE requested to insert "Code" before 360 in §321.36(m).

The commission agrees with this comment because the correct name of this Practice Standard includes the word Code. The commission has made this change in response to this comment.

NRCS requested to delete "be developed using standards contained in the" and replace with "as a minimum meet" from §321.36(m).

The commission agrees that, at a minimum, these standards must be followed during closure of a CAFO. Therefore, the commission has added "at a minimum" to this provision.

Mayor Ethridge and Waco commented that in §321.36(m) specific closure requirements for LMUs with excessive soil P should be included to prevent abandonment and neglect of cover crop. Mayor Ethridge and Waco stated that without proper crop maintenance, soil P levels will go unmanaged and unchanged.

The commission responds that NRCS technical standards for closure, such as those referenced in this subsection, are applicable only to RCSs. NRCS does not have technical standards for closure relating to LMUs. A closure plan is a regulatory tool used by the commission to address potential pollutant impacts from constructed waste management units. Other regulatory tools, such as an NMP, is a more appropriate mechanism for management of agricultural land. The commission did not change the rule in response to this comment.

§321.37. Effluent Limitations for Discharges from Production Areas.

Sierra Club commented that in §321.37 the rules do not have sufficient controls to prevent overflows from RCSs. Sierra Club stated that a 25-year 24-hour design volume is inadequate to protect water

quality standards. Sierra Club commented that the proposed rules continue to authorize the discharge of highly concentrated liquid waste from CAFO lagoons that will violate water quality standards.

The commission disagrees that the rule would allow discharges that would violate water quality standards. An authorization issued in accordance with this rule under either an individual or general permit must prohibit a violation of a state water quality standard. Effluent limitations establish the minimum design requirement for CAFO RCSs and are consistent with 40 CFR, Part 412. When implemented, overflows should be minimized by proper operation and maintenance of the RCS, as required by these rules, and should not cause degradation of water quality. The commission continues to require certain CAFOs in certain parts of the state to meet the design standard for a 25-year, 24-hour rainfall event consistent with federal requirements.

In the *Federal Register*, EPA stated that the new rules require CAFOs to properly design, construct, operate, and maintain storage structures to contain all manure, litter, and process wastewater including the runoff from a 25-year, 24-hour rainfall event. EPA noted that USDA and American Society of Agricultural Engineers (ASAE) cite the 25-year, 24-hour rainfall event as part of the standard to which storage structures should be constructed. CAFOs should actively operate and maintain the manure storage structure, including solids removal or dewatering when appropriate, to retain the capacity for the 25-year, 24-hour rainfall event according to EPA. EPA also discussed that recent studies suggest proper operation and maintenance will prevent most, if not all, overflows and discharges from manure storage areas.

With this rulemaking, the commission addressed overflows with more stringent requirements for RCS capacity, operation, and maintenance. The implementation of new federal requirements and the amendment of certain existing state requirements should also reduce the incidence of RCS overflows and reduce impacts of those overflows on instream water quality statewide. These amendments include more stringent provisions for RCS design applicable to poultry, swine, or veal CAFOs, (§321.37(c)), the requirement to document the sufficiency of an RCS design as being consistent with 40 CFR, Part 412 (§321.38(e)(4)), additional clarifications describing when an operator can remove wastewater from the RCS for irrigation (§321.39(b)), and the addition of weekly recordkeeping of wastewater levels observed in the RCS (§321.46(d)(4)). These amendments all should result in of better management of CAFO waste and fewer overflows. The commission also reviewed the design standards against simulations and models that indicate a properly sized and managed RCS and irrigation system can be operated to have no discharges.

One individual commented that in §321.37 authorized discharges of raw, untreated waste from the CAFO holding ponds must be controlled to meet water quality standards and protect human health. The individual quoted an EPA memo with data from ponds and suggested that discharges should be prohibited.

The commission disagrees that all discharges from CAFO RCSs should be prohibited. TWC and the Clean Water Act require the commission to establish water quality standards and implement permitting programs to ensure that those standards are met. The effluent limitation guidelines

adopted in §321.37 provide protection based upon the technology-based requirements of the EPA designed to meet water quality standards. The commission declines to make changes to the rule.

Mayor Ethridge and Waco requested that the commission add a sentence in §321.37(d): "The operators of CAFOs in major sole-source impairment zones must design, construct, operate, and maintain retention control structures that include the margin of safety specified in §321.42(c)." This will be consistent with the "once in 25 years" margin of safety.

The commission responds that the effluent limitations guidelines referenced in this section are derived from the federal rule and apply to CAFOs throughout the state. The margin of safety for a major sole-source impairment zone has been established as a requirement in §321.42(c) of these rules. The commission declines to make this change.

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

OPIC commented that the existing CAFO rules include a provision that evaporation systems be designed to withstand a ten-year (consecutive) period of maximum recorded monthly rainfall. OPIC noted that this provision had been removed and should not have been.

The commission responds that this provision has not been removed but is addressed in §321.38(e)(7)(C)(i). Any existing evaporation system must meet this requirement. The commission did not make any change to the rule in response to this comment.

OPIC commented that the rules should specify the volumes required to be considered in determining design volume for an RCS. OPIC stated that "white papers" developed by the technical standards committee associated with the coalition of agencies assembled to deal with the North Bosque River Watershed issues recommended that the rules provide clear guidelines for facility management during wet weather. OPIC commented that this is not adequately addressed in the proposed rules and suggested the following sentence be added: "Control facility pumping capacity must be adequate to rapidly pump level down to a safe level."

The commission responds that the volumes required to be considered in determining design volume for an RCS are contained in §321.38(e). Additionally, the commission responds that a CAFO must be able to remove wastewater from the RCS in accordance with its design and consistent with a regular schedule, as required in §321.38(f) and §321.39(b), respectively. These requirements address the issues included in the "white papers." No change was made in response to this comment.

Mayor Ethridge and Waco commented that the last sentence of §321.38(d) should be revised to read: ". . .from inundation and damage that may occur during that flood event." to be consistent with the definition in Chapter 301. OPIC commented that in §321.38(d) the reference to Chapter 301 is

inappropriate. Chapter 309 is a more appropriate reference. This subsection should be changed to read: "All control facilities, including holding pens and RCSs, shall be located outside the one-hundred year flood plain unless the facility is protected from inundation and damage that may occur during the flood event."

The commission agrees with the comment and has changed the rule language in §321.38(d) to be consistent with the definition in Chapter 309.

Mayor Ethridge and Waco commented that prior to issuing permits, including renewals, all RCSs should be re-certified based on contemporaneous measurements in §321.38(e).

The commission disagrees that all RCSs require recertification prior to permitting or prior to renewal of a permit. The commission has the authority to require recertification in the individual permitting process; and may also place a special provision in the permit requiring recertification. The commission also has the authority to require the recertification to be performed by a licensed Texas professional engineer when documentation of design rainfall event is unavailable as specified in §321.38(e)(4) and (5). Certifications will not be available for new construction or modifications of RCSs prior to permitting because the permit would authorize such construction. Additionally, §321.46(c) requires a third-party evaluation of an RCS by a licensed Texas professional engineer every five years. The commission did not make any changes to the rule in response to this comment.

OPIC commented that §321.38(e)(4) does not make it clear that the commission will review sizing of volume available in control structures prior to initial authorization. OPIC also requested clarification on the relationship between this subsection and §321.38(e)(5) and asked if the RCS needs to meet both provisions or only one or the other?

The commission responds that it requires all CAFOs to maintain documentation that the RCS design will contain the 25-year, 24-hour rainfall event or other appropriate design standards in the PPP and make it available upon an inspection.

In general, §321.38(e)(4) applies to any existing RCS that has not been modified, has been properly maintained, and has no apparent structural problems or leakage. Additionally, for those facilities designed by the NRCS, the requirements in §321.38(e)(5) would also apply. Such facilities can meet the requirements of §321.38(e)(4) because NRCS standards at the time of construction would meet applicable state and federal design and capacity requirements.

The commission made no changes to the rule in response to this comment. However, the commission made changes to this section to clarify that any modification of RCSs must be documented to meet rules in place at the time of the modification. The commission also made a change that the facilities built under NRCS plans and specifications must be documented.

Mayor Ethridge and Waco commented that water volumes should be included in §321.38(e)(7)(B) as components of the hydrologic needs analysis because they are critical components of a water balance and that these were included in an earlier version.

The commission agrees that one of the critical components of the water balance had been omitted. The commission changed the rule to add a 21-day minimum storage requirement for process wastewater to reflect the previous rule requirements.

NRCS commented that the phrase "that demonstrates the irrigation water requirements for the cropping system maintained on the LMU(s)" should be deleted from §321.38(e)(7)(B)(i).

The commission responds that this provision has been modified to indicate that the irrigation volume from the RCS may not exceed the hydrologic needs of the crop and the RCS must contain adequate storage volume in accordance with the water balance analysis.

TCFA commented that freeboard requirements are not clear.

The commission responds that the term "freeboard" is no longer in the rules. However, §321.38 specifies the requirement for a minimum of two vertical feet of material between the top of the embankment and the spillway. Additionally, this section specifies requirements for RCSs that do not have a spillway. The commission made no changes in response to this comment.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.38(g) should be revised by adding "A RCS that has been properly maintained and shows no sign of structural problems or leakage is considered to be properly designed and constructed, provided that any required documentation was completed in accordance with the requirements at the time of construction."

The commission revised §321.38(g) to delete "new construction and for all structural modifications of" because subsection (g) applies to new and existing RCSs. The commission also revises §321.38(g)(1) and (2) to specifically apply to new construction and structural modifications of RCSs. Section 321.38(e) states that any existing RCS that has been properly maintained and has no apparent structural problems or leakage is considered to be properly designed and constructed provided that any required documentation was completed in accordance with the requirements at the time of construction.

The commission has made a change in response to this comment. Additionally, in order to clarify that these specifications apply to the RCS and not just the RCS embankment, the commission removed the word "embankment" from the end of the first sentence of the text.

OPIC commented that technical standards for embankment construction should be included in §321.38(g)(1).

The commission disagrees with this comment. These provisions require certification for the design and construction of these facilities. As part of professional registration, acceptable practices are required. Therefore, it is not necessary to include the specifications in the rule.

Mayor Ethridge and Waco commented that in §321.38(g)(3)(B) both sentences in the subparagraph are grammatically incorrect and should be reworded.

The commission agrees with this comment and has reworded §321.38(g)(3)(B).

OPIC commented that in §321.38(g)(3)(C) liner design and construction standards should be outlined in the rules.

The commission disagrees with the comment to place the standards for liner design and construction in the rules. The liner design and construction will be certified by a licensed Texas professional engineer in accordance with Texas Administrative Code, Title 22, Examining Boards, Part 6, Texas Board of Professional Engineers, Chapter 131 Practice and Procedures, which requires the use of good engineering practice. No change was made to the rule in response to this comment.

OPIC stated that proposed §321.38(g)(3)(C) is inappropriate because the requirements allow a geoscientist to certify the integrity of an RCS liner. The comment also points out that the Texas Geoscience Practice Act (TGPA) states that the review, analysis, and evaluation of an engineered

structure is subject to the Texas Engineering Practice Act (TEPA) which limits the evaluation of such a structure to only a licensed engineer.

The commission agrees with the comment and the importance of ensuring the adopted amendments are consistent with both the TEPA and the newly-enacted TGPA that became law in 2001. In response to the comment, the commission reviewed the subchapter to ensure the amended rules do not conflict with the two laws and adopts revisions to this subparagraph and also revised §§321.34(f)(4), 321.39(b)(5), 321.46(c)(1), and 321.47(e)(7) in response to this comment. The changes to §321.38(g)(3)(C) specify that design and construction of an RCS liner requires certification by a licensed Texas professional engineer. The changes to §321.34(f)(4) ensure only appropriately qualified individuals address recharge features with plans that may include installation of protective measures, conducting groundwater monitoring, or plans describing other approaches to protect a recharge feature. The changes to §321.39(b)(5) and §321.47(e)(7) delete the identification of an NRCS engineer, since the engineering work identified by the requirements must be performed by a licensed Texas professional engineer. It is not relevant and could raise confusion to identify some special class of engineer or agency affiliation of an engineer. Further, the commission received information from the NRCS indication that deletion of the term "NRCS engineer" should not have a negative impact on NRCS operations. The changes to §321.46(c)(1) delete identification of an NRCS engineer and a geoscientist and solely identifies that a licensed Texas professional engineer must conduct the site evaluation of the engineering documentation associated with the RCS. The commission notes that the TGPA identifies mechanisms whereby the Texas Board of Professional Engineers and the Texas Board of

Professional Geoscientists may further clarify the roles of qualified professionals when evaluation, design, or construction involve both geoscience and engineering aspects.

OPIC commented that the rules should explicitly set forth that a site-specific assessment must demonstrate equivalent or greater effectiveness of default standards and should clearly state that the site-specific assessment must be completed prior to issuance of the permit.

The commission agrees that the site-specific assessment must demonstrate equivalent protection to the standards set forth in the rule. The commission disagrees that this must be completed prior to issuance of the permit, as an individual permit should be received prior to construction.

OPIC stated that infiltration in the last sentence of §321.38(g)(3)(C) refers to movement of liquid into a container and that the rule requirement is to prevent movement out of the structure and suggested specific language regarding site-specific conditions that may be considered in the design and construction of liners.

The commission agrees with the comment and reworded the language consistent with the comment.

Waco commented that in §321.38(h) manure in roofed storage areas should be protected by berms to prevent run-on.

The commission disagrees that berms are required to prevent run-on. A discharge from manure and litter storage areas is prohibited, regardless of whether the area is roofed or not. The rules provide flexibility for the operator to implement appropriate BMPs to meet the limitations of the rule. BMPs are more appropriately site-specific and should not be dictated by the rule. The commission declines to make this change.

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

OPIC commented that §321.39(b)(5) should include a provision that requires any mechanical or structural damage to a liner be inspected within 30 days by a United States Department of Agriculture NRCS engineer or a licensed professional engineer.

The commission agrees that mechanical or structural damage to a liner should be inspected by a qualified person in a timely manner and made this change to the rule language.

NRCS commented that the current wording in §321.39(b)(2) will not require proper waste storage pond management. NCRS commented that the proposed rule should include wording from an earlier draft of the rule "the CAFO operator shall irrigate until the water level is at or below the planned operating level expected during that month."

The commission did not make changes to the rule based on this comment. The adopted rule language requires that the normal operating wastewater level must be maintained within the design parameters. The rule prohibits a discharge except as a result of the design rainfall event provided that the control facility is properly designed, constructed, operated, and maintained. The rule contains operation and management requirements for control facilities, including RCSs, to ensure that the limitations of the rule are met by maintaining the water level below the design rainfall level. The commission declines to make this change.

Regarding §321.39(b)(3), Mayor Ethridge and Waco commented that during conditions for imminent overflow samples of discharge should be collected at an RCS and not from a discharge from a LMU or samples should be collected from both.

The commission disagrees that samples should be taken from an RCS since a sample analysis would not reflect the actual water quality affecting water in the state. The requirement to sample the discharge from the LMU provides a more representative analysis of pollutants in the discharge. However, to clearly state where the sampling point must be located, the commission revised this provision to indicate the sample must be taken from the drainage pathway extending from the LMU which is the source of the discharge.

OPIC commented that §321.39(b)(3) should be clear that a discharge resulting from mismanagement of the CAFO will not be excused because it occurs during a rainfall event.

The commission agrees that mismanagement of the CAFO does not authorize a discharge due to rainfall events. The provision as written requires notification to the regional office. If there is mismanagement, enforcement will be initiated when necessary. Provisions in §321.37 state that a discharge is only allowed as a result of a chronic or catastrophic rainfall event or catastrophic conditions from an RCS that has been properly designed, constructed, operated, and maintained. The commission did not change the rule in response to this comment.

TPPA and TCFA recommended language between §321.39(b)(3) and (4) regarding repairs to embankments and additional discharges from the RCS with the damaged embankment shall be allowed until the CAFO operator has repaired the embankment or has had a reasonable opportunity to make the repair.

The commission acknowledges the potential for damage to embankments that could result in a discharge. However, the CAFO operator is responsible for maintaining compliance with requirements of the rule pertaining to proper design, construction, operation and maintenance of RCSs. In a situation like this, the commission would encourage the permittee to coordinate with the commission's regional staff to minimize impacts. The commission declines to make this change.

OPIC commented on existing §321.38(g) indicating that it is appropriate to allow a geoscientist to carry out certain requirements that are engineering practices.

In response, the commission revised §321.39(b)(5) to remove the identification of an NRCS engineer to evaluate damage to an RCS liner. The engineering work identified by the requirements must be performed by a licensed Texas professional engineer. It is not relevant and could raise confusion to identify some special class of engineer or agency affiliation of an engineer. Further, the commission received information from the NRCS indicating that deletion of the term "NRCS engineer" should not have a negative impact on NRCS operations.

Mayor Ethridge and Waco commented that §321.39(c) should include a specific schedule for checking sludge depth, not less than once per year, and that additional language should be added to ensure that sludge will be properly disposed.

The commission disagrees with a mandatory schedule for checking sludge depth because the rules prohibit sludge accumulation from exceeding the design volume. This is achieved by removing the sludge according to the design schedule for cleanout, which is based on the facility layout, animal type, treatment processes, amount of processed wastewater, and other site-specific information. The schedule for checking sludge depth should be based on the cleanout schedule and the accumulation rate, rather than a fixed schedule, to avoid unnecessary expenses that would not enhance environmental protection. The commission declines to make this change.

Representative McReynolds commented that in §321.39(d) dry litter poultry facilities do not use retention ponds and should also be exempt from spill prevention and recovery provisions. One-hundred and eighty-six individuals commented that in §321.39(d) the preparation of spill prevention and control

plans for dry broiler/breeder operations is unnecessary and not affordable. TPF commented that in §321.39(d) the preparation of spill prevention and control plans for dry poultry facilities is an additional cost which is not needed for environmental protection for these operations. If they are required, they should not be held to the EPA Spill Prevention Control and Countermeasures (SPCC) rules and regulations. Provision should be revised to "Spill Prevention and Recovery. *Any* CAFO operator *utilizing a retention control structure and storing significant quantities of toxic pollutants onsite* shall develop . . .."

Previously, Subchapter B allowed poultry operations operating under a CWQMP from the TSSWCB to not be treated as a CAFO and to not be covered by the provisions of the subchapter unless referred to the commission for enforcement purposes. In February 2003, EPA included dry litter poultry operations as CAFOs in the new federal regulations. 40 CFR §122.42(e)(1)(v) requires CAFOs to ensure that chemicals and other contaminants handled on site to not be disposed of in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals and other contaminants.

The commission agrees that developing written procedures for spill prevention and recovery creates an additional cost. However, the commission determined that it would be appropriate to continue the existing state requirement for spill prevention and recovery. It is necessary because all CAFOs including dry litter poultry operations use toxic chemicals such as herbicides and

pesticides for animal production and crop management. This requirement is not meant to satisfy an EPA SPCC. The federal EPA SPCC requirements are not included in these rules. Therefore, the commission deleted the requirement for development of this plan and revised the rule to reflect previous rule language, which prohibits these chemicals from entering the RCS and establishes that appropriate measures must be taken if spills occur.

TPPA and TCFA requested to delete the first sentence in §321.39(d) which requires written procedures to be developed for spill prevention and recovery. Neither federal rules nor the current Subchapter B rules require this.

The commission acknowledges the concern caused by the provision requiring written procedures to be developed for spill prevention and recovery plans. The commission will replace "written procedures to be developed for spill prevention and recovery" provision with language from the existing Subchapter B rules relating to potential spills. The commission made this change in response to this comment.

Waco commented that in §321.39(e) manure stored in roofed areas should be protected by berms to prevent run-on.

The commission disagrees that berms are required to prevent run-on. A discharge from manure and litter storage areas is prohibited, regardless of whether the area is roofed or not. The rules provide flexibility for the operator to implement appropriate BMPs to meet the limitations of the

rule. BMPs are site-specific and should not be dictated by the rule. The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.39(f) composting does not remove P. The proposed rule does not address application restrictions for compost. Mayor Ethridge and Waco commented that it should be restricted in a major sole-source impairment zone.

The commission disagrees that specific provisions are necessary to restrict land application of composted material in the major sole-source impairment zone. Land application rates, regardless of nutrient source, are established by the NMP. Therefore, the nutrient content of the composted material would have to be determined prior to land application in order to comply with the application rate established by the NMP. There are several existing requirements governing composting and compost use. In 30 TAC Chapter 332, the commission established the statewide requirements applicable to composting. A general permit establishes requirements for persons who compost manure. This rulemaking adopts provisions in §321.39(f) that include BMPs when composting areas are located at a CAFO. Additionally, the Texas Department of Transportation (TXDOT) contracts establish restrictions and BMPs when compost is utilized in road construction and maintenance activities. Composting associated with grant funding from a nonpoint source pollution grant includes restrictions. The commission declines to make a change to the rule.

OPIC recommended language to be included in the last sentence of §321.39(f) regarding composting areas.

The commission responds that §321.39(f) requires that if the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of the RCS and must be shown on the site plan and accounted for in the design calculations of the RCS. The commission disagrees that compost areas located outside of the drainage area of the RCS must be roofed or covered in impermeable material, protected from external rainfall, *and* bermed. The operator can use site-specific information to determine which one of these BMPs to use to prevent a discharge from the compost area. The commission declines to make changes based on this comment.

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

Mayor Ethridge and Waco commented that §321.40(b) should be revised because the land application of manure, litter, or wastewater at agronomic rates to meet the crop requirements and hydrologic needs shall not be considered surface disposal and is not prohibited.

The commission disagrees that the words "crop requirements" should be added to this provision. Crop requirement is considered in determining agronomic rates; therefore, it would be redundant to state "agronomic rates to meet the crop requirement." The commission declines to make this change.

Mayor Ethridge and Waco commented that §321.40(c) should be revised because manure, litter, or wastewater may be applied to the areas in the 100-year flood plain at agronomic rates not to exceed the crop requirement and hydrologic needs of the crop.

The commission disagrees that the words "crop requirements" should be added to this provision. Crop requirement is considered in determining agronomic rates; therefore, it would be redundant to state "agronomic rates to meet the crop requirement." The commission declines to make this change.

Mayor Ethridge and Waco commented that in §321.40(d) discharge of manure, litter, or wastewater should be prohibited at all application sites (including third-party fields), not just LMUs.

The commission disagrees that third-party fields should be included in this provision. In general, unauthorized discharges from any source are prohibited under TWC, Chapter 26. Specifically for major sole-source impairment zones, §321.42(j) includes prohibitions based on written contracts between the dairy operator and the third-party recipient that establish responsibility for waste management and discharges at a third-party site. The commission declines to make this change.

In §321.40(d), OPIC supports confirmation that the flow of contaminants from an LMU as a result of mismanagement constitutes a prohibited discharge.

The commission acknowledges this comment. Section 321.33(j)(1) requires proper land application of manure, litter, and wastewater to an LMU in order for any runoff to be allowed under the rules.

OPIC noted that a closed parenthesis is missing at end of the first sentence in §321.40(g).

The commission acknowledges that the first sentence is grammatically incorrect by not having the closed parenthesis at the end of the sentence. The commission made this change in response to this comment.

OPIC noted that "CAFOs operator" should be "CAFO operator" in §321.40(h).

The commission acknowledges that this sentence is grammatically incorrect by having the word CAFO plural. The commission made this change in response to this comment.

Mayor Ethridge and Waco commented that §321.40(h) should require a 50-foot buffer between LMUs and adjoining property and public roads.

The commission disagrees that a 50-foot buffer should be required between LMUs and adjoining property and public roads. Land application of manure, litter, or wastewater to adjoining property or public roadways would constitute an unauthorized discharge. The operator is allowed

the flexibility to use site-specific information to determine the appropriate BMPs to adhere to the limitations of this rule.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.40(h) should be revised with insertion of the following language from EPA rules: "As a compliance alternative, the CAFO may substitute the 100 foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited." Additionally, TCFA commented that the EPA language uses "watercourse" and that the proposed rules need to be consistent with the federal language and not go beyond that requirement.

The commission responds that the agency's existing regulations require CAFOs to maintain a 100-foot vegetative buffer, in accordance with NRCS specifications, between surface water and watercourses and LMUs. This buffer has been effective in Texas to reduce polluted runoff from LMUs. Although the EPA rules allow the buffer to be reduced to 35 feet, based on the potential to have a negative effect on water quality, the commission declines to make this change.

TCFA, TSGRA, TPPA, and TFB commented in §321.39(h) that buffer variances for center pivot sprinkler systems should be granted in all instances which are not precluded by federal rules. They suggested that a sentence be added that where center pivot sprinkler systems are used for wastewater application, neither a setback nor a buffer from the edge-of-field is required, unless a 100-foot (or 35-foot, with a vegetated buffer) setback is required to protect water of the United States.

The commission agrees that the federal CAFO rules include a provision for compliance alternatives to the 100-foot setback. If wastewater is irrigated with a low-pressure, low-profile center pivot system in an area of the state with an annual average rainfall of 25 inches per year, it would satisfy the compliance alternative. The commission agrees to revise §321.40(h) to allow the alternative.

NRCS commented that in §321.40(j) nighttime application should not be allowed unless equipment has automatic shutdown or remote warning systems. TCE commented that in §321.40(j) nighttime application of wastes should be prohibited except under catastrophic conditions and then it should be monitored every two hours.

The commission declines to make changes to the rule based on this comment. Statewide, the agency has not documented substantial problems occurring as a result of nighttime land application. Therefore, this provision would constitute a significant economic burden to the CAFO industry without enhanced environmental benefit. In areas of the state where this problem has caused impacts to water quality, the commission may require that these provisions be implemented for operations that have discharges from the irrigation system.

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.40(k)(3) should be revised by re-inserting language from previous drafts of the rules and in §321.47(g)(1) of the current proposal to establish P thresholds. The commenters suggested language that after a NUP is implemented in a major sole-source impairment zone, the operator shall land apply in accordance with the NUP until soil P is

reduced below 200 ppm. The commenters stated that since CAFOs outside a major sole-source impairment zone may apply P according to P index, it may be allowed above 200 ppm.

The commission agrees that the critical P level, recommended by the P index analysis, may deviate from 200 ppm due to site-specific risk factors. For individual permits, the commission will evaluate site-specific information, such as the P index, to determine the appropriate soil P concentration at which a NUP must be developed. To address the comments, the commission agrees to revise §321.40(k)(2) from P limit to critical P level and revise §321.40(k)(3) from 200 ppm to the critical P level.

TCE requested to delete "American Registry of Certified Professionals in Agronomy, Crops and Soils" and replace with "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 licensed geoscientist-soil scientist in Texas" in §321.40(k)(3) because the American Registry of Certified Professionals in Agronomy, Crops and Soils is no longer a certifying group.

The commission revised the rule to state the proper certifying entity.

Mayor Ethridge and Waco commented that §321.40(k)(3) needs to be revised because after a NUP is implemented, the operator shall land apply in accordance with the NUP until soil P is reduced below 200 ppm. Mayor Ethridge and Waco additionally commented that the word "will" after NUP is

grammatically incorrect and stated that there is confusion about NMPs and NUPs. Mayor Ethridge and Waco also commented that there needs to be clarification as to operator obligation under the NUP before soil P is reduced below 200 ppm and their obligation thereafter under the NMP. Additionally, Mayor Ethridge and Waco commented that the purpose of the last sentence is unclear.

The commission agrees that the phrase "in accordance with the NUP will until soil . . ." is grammatically incorrect and the sentence has been revised to strike the word "will." The commenter requested clarification about NMPs and NUPs. The commission responds that an NMP (NRCS Practice Standard Code 590) accounts for all nutrients, generated by the CAFO, and establishes a sustainable application of manure, litter, and wastewater to the LMUs. It also establishes the appropriate application rate based on crop requirements and considers the P index to determine the risk potential for runoff. A NUP is a short-term management tool to address soil P concentrations that exceed the critical P level. This plan is based on crop removal rate to reduce the soil P concentrations. The NUP must be followed until the soil P concentration is reduced to below the critical P level. At that point, the CAFO operator must manage the LMU in accordance with an NMP. Until the NMP is required, CAFOs must follow the land application provisions of this section.

OPIC commented that a new subsection (l) should be added in §321.40 requiring LMUs of adequate size to enable the rapid pumping of RCS levels at a CAFO to safe levels.

The commission disagrees with this comment because the size of the LMU is only one element in managing wastewater levels under imminent overflow conditions. Irrigation equipment and soil permeability rates influence how fast wastewater levels can be lowered. By designing, constructing, operating, and maintaining the RCS according to the effluent guidelines, conditions that would contribute to the need for rapid reduction of wastewater levels should be minimized. The commission declines to make this change.

§*321.42. Requirements Applicable to the Major Sole-Source Impairment Zone*.

TAD commented that it appreciated efforts of the commission to incorporate recommendations from "white papers" developed by stakeholder group led by Congressmen Stenholm and Edwards. TAD expressed appreciation for agency efforts to involve stakeholders in the rulemaking process. TAD also recognized the cooperative efforts by the Natural Resource Conservation Commission, the TSSWCB, the Brazos River Authority, the Texas Water Development Board, and the Texas Department of Agriculture.

The commission acknowledges the comment.

Mayor Ethridge and Waco commented that by postponing enforceable regulations on dairies with regard to P, the commission is also delaying any effort to address in any way the concerns about bacteria as noted on page 3 of the TMDL implementation plan.

The commission disagrees that implementation of the TMDL is being postponed. In fact, adoption of this rule is a key step in assisting with the implementation of the TMDL. Additionally, while permit applications are processed for CAFOs in the North Bosque River Watershed, the commission is incorporating the requirements of the TMDL implementation plan at this time as permits are issued. While noted in the TMDL implementation plan as a corollary benefit, the commission continues to list the North Bosque River as impaired due to bacteria concentrations. Instream monitoring data over the next few years may show whether the corollary benefit actually occurs or not.

Mayor Ethridge and Waco commented that the rules continue to authorize discharges from RCSs even though the EPA's approval of the TMDL was based on the assumption that there was no load allocation for RCS discharges.

The commission disagrees with this comment. The TMDL, and more importantly the subsequent implementation plan, allocated an overall "percent reduction" of loading from dairy operations, relative to the loading that occurred during the mid-1990's, and estimated that reduction to be approximately 50% over the entire North Bosque River Watershed. The load reduction target did not distinguish between loading from RCSs and from waste application fields, because data and analyses could not effectively separate them. The adopted rule does contain provisions such as RCS management plans, graduated pond marker, larger margin of safety, and overflow reporting, etc. that will reduce the probability of occurrence of discharges significantly from the RCS. No changes have been made to the rules in response to this comment.

Mayor Ethridge and Waco commented that the rules will not attain objectives of TMDLs for the North Bosque River because they do not include means to achieve BMPs (50% collectible waste haul-out) and assumptions (200 ppm in existing LMUs) upon which the TMDLs were based. Mayor Ethridge and Waco commented that over-application of manure to on-site and third-party LMUs would be allowed despite an assumption in TMDLs of 50% waste removal from the watershed.

The commission disagrees with the comments. Federal regulations do not require a TMDL implementation plan's processes to be included in state regulations. The adopted §321.42 contains special provisions that are more stringent than federal regulations. Section 321.42 is similar to portions of the implementation plan and is predicated on TWC, Chapter 26, Subchapter L, and the Bosque White Papers. Most importantly, adopted §321.42 applies to all dairy CAFOs in a major sole-source impairment zone, not just new or expanding dairy CAFOs as required by TWC, §26.503.

The commission approved the TMDL Implementation Plan for the North Bosque River on December 12, 2002. This plan identifies a goal to seek removal of 50% of the manure from the watershed. However, the commission's plan is clear that it will seek this goal primarily through voluntary means. Further, this goal was never assumed to be the sole and exclusive plan for dairy manure waste management.

In addition, TWC, Chapter 26, Subchapter L, assists with the implementation of the TMDL and implementation plan by identifying several alternatives for waste management, including other

beneficial uses approved by the executive director. In view of all ongoing implementation activities, there is no current reason to mandate manure removal by rule, precluding a variety of other alternative waste management methods.

Haul-out of manure was described in the North Bosque Implementation Plan as a voluntary measure that CAFOs can take advantage of the compost project in the watershed. The implementation plan also indicates that if dairies do not choose to use the voluntary measures, or when the compost nonpoint source grant program ends, they will have to achieve the percent reduction target via the regulatory measure, which is comprehensive P-based waste management. The adopted rule requires PPPs and CNMPs for CAFOs in the North Bosque River Watershed, and those plans account for voluntary elements of waste management like haul-out and dietary-P levels. When waste is properly managed and land-applied consistent with P-based plans, there will be little export of P to the stream system will be substantially reduced regardless of the percentage of total waste applied to an LMU.

Section 321.42 requires additional restrictions for third-party fields operated in the major sole-source impairment zone. That section adds a new provision to require permits for existing dairy CAFOs in the major sole-source impairment zone to allow the operator to provide manure, litter, and wastewater to operators of third-party fields that have been identified in the PPP. The dairy operator will be subject to enforcement action for violations of the land application requirements on any third-party field under contract. Specifically, the amended rule requires: 1) a written contract between the dairy operator and the recipient; 2) dairy CAFO operators may not deliver

manure, litter, or wastewater to a third party once the soil test P analysis shows a level equal to or greater than 200; 3) annual samples of third-party fields by a nutrient management specialist; and 4) submittal of records to the appropriate regional office quarterly. This provision was added to allow effective utilization of nutrients on nutrient deficient soils throughout the watershed and will reduce additional land application to existing LMUs at the CAFO. This is intended to reduce the potential for P runoff from the CAFO LMUs. No changes have been made to the rules in response to this comment.

Mayor Ethridge and Waco commented that nothing in the proposed rules will promote attainment of TMDLs other than conversion to a 25-year, ten-day standard for RCSs and this will not promote attainment if the SPAW model is used and management practices are not strictly enforced. Mayor Ethridge and Waco commented that the proposed rules contain no effective mechanism for assuring that sizing of RCSs to contain the 25-year, ten-day storm will be attained or means to provide enforceable check on SPAW modeling or RCS recertification based on contemporaneous inspections.

The commission responds that the Stephenville field office was created to specifically inspect and enforce permit requirements, including RCS management. The commission is committed to enforcement of proper management practices for all dairies within the major sole-source impairment zone. The TMDL can be attained through the use of the SPAW model. The frequency of the occurrence of any 25-year storm has less than a 4% chance of occurring in any given year. The commission will provide guidance on an as needed basis and will require the use

of a data set which includes the severe rainfall that the Bosque River Watershed received during the mid-1990s. The commission made no change to the rule in response to this comment.

Mayor Ethridge and Waco commented that the proposed rules allow application of waste and wastewater to fields with more than 200 ppm even though the waste application field area was modeled at 200 ppm (13% of the area that had had waste applied) and 60 ppm (87% of the area that waste had not been applied).

The commission responds that the model conditions simulate conditions existing or expected in the watershed on a broad scale based on the information available at the time. The model analyses indicated the extent to which stream loading can be reduced, which became the target of the TMDL and implementation plan. Soil P concentrations are addressed by the requirement for PPPs and CNMPs, which are based on site-specific conditions and analyses. Achieving soil conditions identical to the broad-scale watershed model simulation is not a goal for the TMDL or implementation plan, nor appropriate as a requirement within the rule. The rules require dairy CAFOs in the major sole-source impairment zone with LMUs with soil P concentrations above 200 ppm to contract with a nutrient management specialist to develop and implement a NUP to reduce P. The NUP is a site-specific risk evaluation of the potential for runoff from the LMU based on several factors. The commission has not changed the rules in response to this comment.

Mayor Ethridge and Waco commented that waste and wastewater not be applied at a rate greater than the annual crop requirement of P on LMUs.

The commission responds that it is committed to enforcement of the criteria for soil test P and implementation of the more restrictive management practices included in this rule. Available data on soil test P from peer reviewed research and consultation with soil scientists from universities and federal and state agencies have not clearly demonstrated that P levels in excess of the annual crop requirement of P for LMUs with a P content below the established criteria of 200 ppm will run off. This assumption is based on the proper management of land application when manure, litter, and wastewater are applied according to this rule. The commission has not changed the rules based on this comment.

Mayor Ethridge and Waco commented that the number of dairy cows at CAFOs and AFOs in the North Bosque River Watershed should be limited to the number modeled in arriving at the approved TMDL (40,450).

Dairy operators must comply with water quality requirements regardless of the number of head at an individual facility or the total number within a watershed. A TMDL is an evaluation of the loadings of a pollutant of concern and the implementation plan describes how to achieve reductions in loadings. Most importantly, a TMDL contains estimates to reduce loadings of the pollutant of concern to meet water quality standards. Neither federal regulations relating to TMDLs nor the Bosque River TMDL limit the number of animals at a CAFO in an impaired watershed. Water quality regulations limit the amount of pollutant discharged from a CAFO production area. For example, the commission does not limit the amount of waste that can enter a waste management or treatment system, but does regulate the effect discharges from the waste

treatment system have on receiving waters. The commission does not limit the production capacity of the dairy industry, by limiting the number of cows allowed in the watershed, but does require proper management of CAFO operations.

The commission did not change the rule in response to this comment. Required elements of a TMDL include a consideration of both point and nonpoint sources of pollution and their relative contribution to the impairment. The modeling procedures used to support the development of the TMDL for the Bosque River Watershed include conservative assumptions to provide some compensation for the inherent variability of the complex interactions of the natural ecosystem. Placing limitations on the production capacity of individual sources of the pollutants raises questions regarding the control of either point sources or nonpoint sources. If reductions in pollutant loading from point sources such as municipal wastewater treatment plants are required to achieve the applicable water quality standards, that reduction is generally accomplished by changes in the wastewater management and treatment process rather than by placing a limit on the individual contributions to the wastewater. Even though portions of most CAFOs and some AFOs are considered to be point sources, the nonpoint source contributions from these facilities had to be considered for development of the TMDL. Changes in BMPs for management and land application to achieve the needed reduction in pollutants from nonpoint sources is preferable to placing production limits on the individual sources.

OPIC supports the addition of management standards applicable to dairy CAFOs within a sole-source impairment zone in §321.42.

The commission acknowledges this comment.

OPIC supports the use of the Mehlich III soil test method, but commented that the rules should also include a requirement that sampling be performed in accordance with TCE soil sampling guidelines.

The commission did not make changes in response to this comment. The commission appreciates the support for the Mehlich III soil test analytical method. The requirement for this procedure is based on continued review of soils related to research reported in referenced journals and consultation with soil scientists from universities and federal and state agencies. The rules require that soil samples be collected in accordance with procedures described in the agency's publication "Soil Sampling for Nutrient Utilization Plans (RG-408)." This document is based on TCE soil sampling guidelines and was subjected to extensive peer review prior to publication.

TCE requested to delete "concentrated animal feeding operations (CAFOS)" and add "CAFOs" in §321.42(a).

The commission declines to make this change. *Texas Register* formatting preferences dictate that the initial use of a word or term in each section that will be referenced to by an abbreviation or acronym be spelled out the first time it is used.

TPF commented that §321.42(a) and (t) should be revised by adding the word *dairy* before "CAFO" in each item.

The commission agrees with this commenter. The commission notes that no change is necessary to subsection (a) since each reference to a CAFO or AFO includes the term "dairy." However, the requested change has been made to subsection (t) to make the intent of the scope of this subsection accurate.

CCW commented that in §321.42(c) RCSs should be designed and operated to contain a 25-year, ten-day rainfall (12 inches).

The commission acknowledges this comment and adopted this as one method to satisfy the margin of safety.

OPIC commented that §321.42(c)(2) should include specific guidelines for SPAW model parameterization and interpretation of outputs.

The commission disagrees that the rule should include specific guidelines. The SPAW model may only be used in applications for individual permits which will undergo a detailed technical review. The assumptions will be documented in the individual permit as special provisions that will be enforceable. If necessary, the commission will provide guidance on the use of SPAW. The commission has not made any changes to the rules in response to this comment.

Mayor Ethridge and Waco commented that in §321.42(c)(2) in the use of a SPAW model no design should be allowed that would be less than required from simply using the 25-year, 24-hour event.

The commission agrees that, at a minimum, the rule requires that the RCS must be able to contain the 25-year, 24-hour event. This will be checked during the review of the individual permit application. The commission did not make any changes in response to this comment.

Mayor Ethridge and Waco commented that in §321.42(d) there are words missing at the end of the sentence after "must be." OPIC proposed a clarifying change in §321.42(d). NRCS requested to delete "that must be" and replace with "required margin of safety" in §321.42(d). TCE commented that §321.42(d) does not make sense and suggested that "that must be" might need to be deleted.

The commission modified this subsection by adding the words "maintained in the RCS." These words were inadvertently left out of the sentence.

Mayor Ethridge and Waco commented that the SPAW model is a design tool, not an enforcement tool. Additionally, Mayor Ethridge and Waco commented that dairies should be made aware that RCSs must be managed in accordance with assumptions that go into the model. Mayor Ethridge and Waco also commented that margin of safety is one discharge in 25 years and that any discharge that occurs as a result of any event smaller that the 25-year, ten-day event will be occurring more than once in 25 years, and would thus be an unauthorized discharge. One individual commented that in §321.42(c) the use of SPAW model in rule is vague, complex, and difficult to enforce.

The commission acknowledges that SPAW is a design tool. However, the design assumptions used in the SPAW model will be documented in the individual permit as special conditions. These are

expected to include the level at which the irrigation pumps will be operated, the minimum capacities of the irrigation pumps, the crop systems and size of irrigation area, the size of the area which will be contained by the RCS, and the expected operating parameters. During the review, additional requirements may be added, including the expected volume added to the pond after a certain amount of rainfall. These special provisions will be enforceable and provide the tools for the commission to determine whether the operation is in compliance with their permit and representations in the SPAW model.

One individual commented that §321.42(d) should not allow overflow of raw, untreated waste from CAFO holding ponds in the Bosque River Watershed.

The commission did not make any changes in response to this comment. The additional margin of safety greatly decreases the occurrence of an overflow. A prohibition on discharges from an RCS is unnecessary for water quality protection, nor is a prohibition economically achievable.

Mayor Ethridge and Waco commented that in §321.42(e) the compliance schedule for construction of a new or modified RCS should not be more than one year.

The commission disagrees with a limitation of one year for a compliance schedule to construct adequate facilities to comply with subsections (c) and (d). The existing requirements of the TPDES program, including the requirements of 30 TAC §307.2(f) adequately address time limits for compliance schedules. In this provision, a compliance schedule may be granted in a permit for

up to three years. A shorter compliance schedule could be required depending on site-specific conditions.

Mayor Ethridge and Waco commented that §321.42(h) does not have adequate requirements to determine that ponds designed with SPAW are managed properly. Mayor Ethridge and Waco added that if the water level in the RCS exceeds the projected monthly level more than three months in a row or four times in a given year, the operator should enlarge the RCS.

The commission responds that exceedance of the projected monthly level does not always constitute an encroachment into the margin of safety. The commission disagrees that just because the water level exceeds that expected level in a given number of months, the RCS must be enlarged. The commission cannot predict when the amount of rainfall at the CAFO will exceed those used in the SPAW model or when circumstances exist that the water level is not maintained. The field staff will review the documentation by the CAFO operator to determine if the justification for exceeding the projected water level for a given month is reasonable. The commission made no changes to the rule in response to the comment.

Mayor Ethridge and Waco commented that an annual certification by a professional should be required which certifies that each RCS has been continuously operated in accordance with its design.

The commission disagrees that another certification should be required. The commission is currently conducting annual inspections for CAFOs in the North Bosque River Watershed which

verifies compliance with the commission's rules and permit requirements. The commission made no changes to the rule in response to the comment.

Mayor Ethridge and Waco indicated that the commission told the court in litigation that often RCS levels cannot be lowered because the liner must remain wet so that it does not crack. Mayor Ethridge and Waco asserted that this must not be used as an excuse for not meeting projected monthly depths, and this provision should provide so. Mayor Ethridge and Waco stated that if a cracking liner is an issue in that area of a lagoon designed for fluctuating water levels, then some other liner design should be used.

The commission responds that the rules require a CAFO operator to manage the level in the RCS in order to provide sufficient capacity for a chronic or catastrophic rainfall event. The commission requires CAFO operators to maintain the RCS wastewater levels and the required margin of safety. This does not authorize the operator to exceed sludge design and maintenance requirements by claiming that the RCS level could not be changed in order to protect the liner.

One individual commented that §321.42(i) should require removal of manure from the Bosque River Watershed. Mayor Ethridge and Waco commented that over-application of manure to on-site and third-party LMUs would be allowed despite an assumption in TMDLs of 50% waste removal from the watershed. Sierra Club commented that in §321.42(i) provisions for the Bosque River Watershed do not require haul-out or composting of solid waste produced, but allows other options as well and is contrary to the TMDL implementation plan. EPA suggested that the rules should include provisions

which address recommendation in the TMDL implementation plan for removal of about half of the collectable dairy-generated manure from the North Bosque Watershed.

The commission disagrees with the comments. The commission approved the TMDL implementation plan for the North Bosque River on December 12, 2002. This plan identifies a goal to seek removal of 50% of the manure from the watershed. However, the commission's plan is clear that it will seek this goal primarily through voluntary means. Further, this goal was never assumed by the commission to be the sole and exclusive plan for dairy manure waste management.

In addition, TWC, Chapter 26, Subchapter L, assists with the implementation of the TMDL and implementation plan by identifying several alternatives for waste management, including other beneficial use approved by the executive director. In view of all ongoing implementation activities, there is no current reason to mandate manure removal by rule, precluding a variety of other alternative waste management methods.

Haul-out of manure was described in the North Bosque River Implementation Plan as a voluntary measure that CAFOs can take to take advantage of the compost project in the watershed. The implementation plan also indicates that if dairies do not choose to use the voluntary measures, (or if the compost program ends) they will have to achieve the percent reduction target via the regulatory measure, which is comprehensive P-based waste management. The adopted rule requires PPPs and CNMPs for CAFOs in the North Bosque River Watershed, and those plans account for voluntary elements of waste management like haul-out and dietary-P levels. When

waste is properly managed and land-applied consistent with P-based plans, there will be little export of P to the stream system regardless of the percentage of total waste applied.

Section 321.42 requires additional restrictions for third-party fields operated in the major sole-source impairment zone. That section adds a new provision to require permits for existing dairy CAFOs in the major sole-source impairment zone to allow the operator to provide manure, litter, and wastewater to operators of third-party fields that have been identified in the PPP. The dairy operator will be subject to enforcement action for violations of the land application requirements on any third-party field under contract. Specifically, the amended rule requires: 1) a written contract between the dairy operator and the recipient; 2) dairy operators to not deliver manure, litter, or wastewater to a third party once the soil test P analysis shows a level equal to or greater than 200 ppm, or the operator is not in compliance with this subchapter or the contract; 3) annual samples of third-party fields by a nutrient management specialist; and 4) submittal of records to the appropriate regional office quarterly. This provision was added to allow effective utilization of nutrients on nutrient deficient soils throughout the watershed and will reduce additional land application to LMUs at the CAFO. This is intended to reduce the potential for P runoff from the CAFO LMUs. No changes have been made to the rules in response to this comment.

EPA commented that in §321.42(i) permits issued for new or expanding dairy CAFOs in a major sole-source impairment zone should require disposal of waste outside the watershed or delivery to a compost facility. EPA stated that the proposed regulation and P index appear to be inconsistent. EPA stated that the P index provides that once a field reaches the critical soil test P no further application is

recommended, but the proposed rules say that when soil test P reaches 500 ppm a NUP with a P reduction component must be developed. EPA recommends that regulation prohibit or strongly restrict further land application of manure or wastewater if the soil P is greater than the critical soil test P level as listed in the Texas Phosphorus Index (PI). EPA stated that this should apply to all CAFOs covered by the proposed regulation.

The commission responds that the provision in the rule that requires the operator to have a NUP developed with a P reduction component if soil test P levels exceed 500 ppm is consistent with state statute (See TWC, §26.504.).

The 500 ppm is statutory language which required soil testing for P in the fall of 2001. If the P rating was 500 ppm or greater, the operator would be required to develop a NUP or revise the existing NUP to show a crop removal application rate. Prior to 2001, the rule contained a 200 ppm limit statewide that required a NUP for continued land application but also provided the CAFO an option to cease land application on that field. Once the NUP has been implemented, the P level historically has not increased, but stabilized or started to decrease. The NUP will use the PI to establish site-specific levels of P to determine risk potential for runoff and establish the land application practices at the site which may contribute to water quality concerns. In these cases the operator will be required to follow the recommendations of the NUP for management of P and could be subject to enforcement action if the recommended practices are not implemented.

Water quality protection is enhanced by better management of the site, minimizing potential for runoff and continuing to maintain vegetation production to harvest excess P. The commission encourages operators to continue production of vegetation on high P fields to facilitate P removal. This requires fertilizer (nitrogen and potassium) to be added even if the soil laboratory analysis does not recommend adding P to achieve optimum production. The operator can utilize manure as the nutrient source in these cases but must limit the manure application rate to the risk potential identified by the PI. The commission did not make any changes to the rule in response to these comments.

CCW commented that in §321.42(i) application of collectable manures and liquids in the Bosque River and Leon River Watersheds should be allowed, including third-party fields, if a valid CNMP is developed for each land application unit. CCW commented that solids and portable liquids applications should be allowed to 2.5 times the relevant crop agronomic rate or 150 ppm every other year, if soil test P is below 200 ppm. No application should be allow if soil test P exceeds 500 ppm. CCW also commented that on fields with soil test P of 200 and 500 ppm application of effluent de-watering should be restricted to relevant crop agronomic rate or 80 ppm, whichever is greater. CCW added that waste application fields should not be grazed.

The commission supports the development and implementation of CMPs for all agricultural operations that involve crop production or that add supplemental nutrients and soil amendments to improve soil productivity. Further, the CNMP includes a NMP which is required for appropriate land application. The NMP must be developed by a certified nutrient management

specialist and must consider nutrient requirement of the crop and water quality. There are provisions in this rule which will allow dairy operators in the North Bosque River Watershed to include third-party land application areas if the dairy operator follows specified practices and recordkeeping requirements outlined in the rule. This rule does not place any additional restrictions on use of manure, litter, or wastewater on third-party land application areas in the Leon River Basin or other areas of the state.

The current numerical criteria of 200 ppm of soil test P allows for the inherent spatial variability of P levels as well as other variables such as soil types, soil depths, and sampling/analytical procedures. The commission recognizes that this level does not reflect estimated crop requirement levels, but is based on research related to risk levels for leaching and movement from soil to water. This level is also based on the recognition of not only the variables listed above, but other factors such as plant availability of the various ionic and molecular complexes that may exist and not distinguished by the lack of specificity of functional and affordable analytical procedures.

The rules provide for a range of management practices that are triggered by soil test P levels. In all cases the rules require the CAFO operator to have a NUP developed and implemented if soil test P levels exceed 200 ppm for land application areas owned by the CAFO, no matter where the facility is located in the state. In the major sole-source impairment zone, the operator is required to develop a NUP which includes a P reduction component if soil test P levels exceed 200 ppm. If the levels are between 200 and 500 ppm, the operator may be able to demonstrate through a site-specific NUP that P can be applied without risk of having runoff contribute to the impairment.

However, if the level exceeds 500 ppm the only option is to have a P reduction component. The operator must also implement a monthly soil testing protocol consistent with soil sampling guidelines. If soil test P levels do not decrease within a year, the operator may be subject to enforcement action from the agency. The requirements for the major sole-source impairment zone are consistent with state statutory requirements found in TWC, §26.504.

Mayor Ethridge and Waco commented that §321.42(i) should also apply to wastewater, and specify how wastewater may be managed and disposed.

The commission disagrees with the comment. A substantial part of the rule already describes the appropriate management methods for wastewater, including effluent limitations, control facility design and operational requirements, as well as land application requirements. The commission declines to make this change.

Sierra Club commented that in §321.42(i) the compost program does not remove enough manure from the watershed, indicating that 28% of waste that had been going to historical fields was either being removed from the watershed or to composting facilities. The commenter was concerned that the program will not be self-sustaining after the conclusion of grant funding, and recommended that the rule should require participation by dairies and funding by the dairies.

The commission made no change to the rule in response to this comment. The commission, other state and federal agencies, and other parties have placed a high priority on the manure

composting effort and substantial benefit has been achieved to date. It is the intention of the grant program to demonstrate a cost effective, market-based approach to manure waste management. After the conclusion of the grant, the commission expects these successful efforts to continue without state and federal funding. There are at least seven composting facilities processing manure from the Bosque River and Leon River Watersheds, who have invested in composting both to receive the grant-based incentives and for the time beyond. The TXDOT has allowed broad use of compost in road construction and maintenance projects signifying a viable and continuing market. As stated in response to other comments, the TMDL implementation plan is clear that it will seek the goal of 50% removal from the watershed primarily through voluntary means. The commission disagrees with the commenter that there is a need to mandate composting of manure.

Mayor Ethridge and Waco commented that the rule allow application of waste to fields that have P levels beyond the crop requirement; therefore, this is waste disposal. Sierra Club commented that in §321.42(i) the Bosque River Watershed provisions allow application of waste to fields with greater than 200 ppm soil test P. Sierra Club commented that applications on fields which exceed this level ceases to be beneficial use, but becomes disposal. EPA commented that §321.42(i)(5) of the rules should include a discussion of how the land application requirements will comply with any applicable TMDLs in a major sole-source impairment zone. Senator Averitt commented that the proposed rule would allow CAFOs to apply manure and wastewater to fields with P concentrations in excess of 200 ppm. Senator Averitt also stated that fields with P levels in excess of 200 ppm have no need for additional nutrients as that level exceeds vegetation's ability to uptake.

The commission responds that the numerical criteria for soil test P in the LMUs are based on consultation with soil specialists from universities, state and federal agriculture agencies, and research published in peer reviewed journals related to soil science and agronomy. The requirement for CNMPs developed in accordance with NRCS guidelines and by specialists that have completed NRCS training is consistent with the federal regulation for CAFOs developed by the EPA. The background and justification for this approach is discussed in detail in the "Strategy for Addressing Environmental and Public Health Impacts from Animal Feeding Operations" developed jointly by EPA and USDA, in "Concentrated Animal Feeding Operations: Final Rule" developed by EPA and in "Concentrated Animal Feeding Operation Supplemental Documents: Development Documents" developed by EPA. The site-specific plans utilize the P index analysis to determine risk potential for P movement from the LMU and acknowledge the inherent variability that prevails in agricultural areas of the state.

They also rely on the expertise of agricultural specialists with access to scientifically based data and methods which are applicable to understanding and controlling the complex interactions between soil and water. Based on the review of available research data and continued consultation with soils specialists, the agency has not found sufficient data to demonstrate that soil test P levels below the existing criteria, but above the crop requirement levels will result in the excess P being transported from the land application unit to a receiving stream.

The commission disagrees that application of waste in accordance with the requirements of this rule is a disposal activity. Section 321.32 defines beneficial use as application of manure, litter, or

wastewater at or below an agronomic rate. Agronomic rate is also defined in §321.32 as land application done in accordance with a plan for nutrient management. Section 321.40(k) establishes necessary controls that are implemented in permits to ensure excessive P is used and removed from the soil. A NUP is necessary in the instance where excessive P is found in soil of an application field. Land application must cease until the NUP is developed and implemented.

The commission also responds that the adopted rules restrict nutrient concentration in third-party fields to 200 ppm because the scientific analysis associated with an NMP/NUP is not performed by a certified nutrient management specialist. For LMUs, a certified nutrient management specialist must prepare an NMP which evaluates risk potential for runoff and recommends appropriate BMPs to control the runoff.

Mayor Ethridge and Waco commented that in §321.42(i)(3) compost should be required to be used outside of the watershed or specific guidelines established for its use in the watershed.

The commission disagrees that additional requirements are necessary. There are several existing requirements governing composting and compost use. In Chapter 332, the commission established the statewide requirements applicable to composting. The commission does not intend to regulate the end use of compost. The composting general permit establishes requirements for persons who compost manure. This rulemaking adopts provisions in §321.39(f) that include BMPs when composting areas occur at a CAFO. Additionally, TXDOT contracts establish restrictions and

BMPs when compost is utilized in road construction and maintenance activities. Composting associated with grant funding from a nonpoint source pollution grant includes restrictions.

TCE requested to delete “nutrient management plan (NMP)” and add “NMP” and requested to delete “Natural Resources Conservation Service (NRCS) 590" and add “NRCS Code 590" in §321.42(i)(5)(A).

The commission declines to make this change. *Texas Register* formatting preferences dictate that the initial use of a word or term in each section that will be referenced to by an abbreviation or acronym be spelled out the first time it is used.

TCE requested to add “Code” before “590" §321.42(i)(5)(B).

The commission agrees with the comments to add the word “Code” to the title of the NRCS guidance.

TCE requested to delete “nutrient utilization plan (NUP)” and add “NUP” in §321.42(i)(5)(C).

The commission agrees to use the acronym NUP in subparagraph (C), since it was previously identified in the rule section.

TCE supports provisions for third-party waste application fields.

The commission acknowledges this comment.

Mayor Ethridge and Waco commented that the rules would allow waste application to third-party fields without any effective means of enforcement. Additionally, Mayor Ethridge and Waco commented that all third-party fields should be part of the permit.

The commission disagrees with the comment. The requirements for third-party land application included in these rules are adequate controls, including third-party contracts, that will be readily enforceable. This activity is optional and there is not a need to include it in a permit. The CAFO permit establishes all necessary land application capacity consistent with the production of the CAFO, including a specific description of the LMUs in the permit. Any additional third-party land application will represent excess capacity to provide for more sound waste management by existing dairy CAFOs. The commission made no change to the rule in response to this comment.

Regarding §321.42(j), (n), and (o), Mayor Ethridge and Waco commented that the requirements of subsection (j) seem initially to apply only to third-party fields, but LMUs are also mentioned in subsection (j)(3). Since subsections (n) and (o) both refer to subsection (j)(3), it is not clear whether they apply to LMUs only or to both third-party fields and LMUs. Since both subsections (n) and (o) discuss P levels in excess of 200 ppm, it is not clear that third-party fields will be limited to 200 ppm as seemingly required by §321.42(j)(2).

The commission agrees with the commenters that the wording proposed for subsections (j), (n), and (o) may conflict with each other. Therefore, the commission adopts revisions to these subsections to make the commission's intent more accurate. Adopted subsection (j)(2) specifies a prohibition on land application at a third-party field once the operator determines soil P exceeds either 200 ppm P or the P crop requirement. To accomplish this, subsection (j)(3) has been revised to delete a reference to LMUs. Adopted subsections (n) and (o) reference sample results from the requirements of subsection (m). Subsections (o) and (p) were revised to include "based on crop removal" to clarify the requirements of a P reduction plan.

Regarding §321.42(k), TCE commented that an NRCS employee cannot be under contract and the NRCS commented that NRCS employees cannot work under contract to private citizens.

The commission deleted "an employee of" from this subsection to address this comment.

Mayor Ethridge and Waco commented that in §321.42(m) CAFOs in a major sole-source impairment zone should also be required to collect and analyze samples taken in the zero- to two-inch soil zone regardless of method of application. Mayor Ethridge and Waco stated that it is the top two inches that impact water quality of runoff.

The commission did not change the rule as a result of this comment. There is disagreement among soil specialists as to the efficacy of this requirement. Some contend that analysis of soil test P from this soil zone does not accurately reflect P levels available to the plants. The commission

included this requirement as a means of assuring better management of manure, litter, or wastewater on land application units which are not conducive to injection or incorporation into deeper soil layers. Collection of soil samples from soil zones other than the top two inches is necessary to assist the operator with proper management of waste application and crop production in the LMU.

Mayor Ethridge and Waco commented that the existence of §321.42(n) implies that despite recommendations in NRCS guides there could be fields in excess of 500 ppm P. Mayor Ethridge and Waco commented that this emphasizes the need to set the recommended levels as required levels in the rules.

The commission did not make changes to the rule in response to this comment. This subsection is taken directly from TWC, §26.504. This subsection was added to the rule in response to legislation adopted by the 77th Legislature, 2001. This provision requires an amendment to a NUP to specifically address actions needed to reduce the soil P level. It also requires the operator to implement a monthly soil testing protocol and if, after a year, there is no demonstration of P reduction, the operator may be subject to enforcement action by the agency.

OPIC requested clarification of the term "documented" in §321.42(q). OPIC commented that an unauthorized discharge should be considered documented if a notice of violation is issued. Additionally, OPIC commented that the requirement for installation of shutdown or an alarm system

should be mandatory and not subject to waiver by the executive director. It should require both shutdown and an alarm system.

The commission agrees in part with the comment. If an activity is unauthorized, it is a violation. Therefore, the adopted subsection (q) deletes the word "unauthorized." The commission disagrees that the rule should mandate the installation of an automatic shutdown or alarm system. These needs will be reviewed in consideration of site-specific factors and the nature or gravity of an unauthorized discharge.

Mayor Ethridge and Waco commented that in §321.42(s) CNMPs should be required to be developed and implemented by September 1, 2005 for facilities with existing permits. Mayor Ethridge and Waco commented that new individual permits should be required to operate under a CNMP at the time of permit issuance. CCW commented that in §321.42(s) that CNMPs should be required to be developed by January 1, 2005 and implemented by January 1, 2006. One individual commented that CNMPs and other actions that are voluntary now should not become mandatory in the future.

The commission disagrees with the comments. A CNMP is mandatory for dairy CAFOs in a major sole-source impairment zone to better ensure adverse impacts from P and other nutrients do not occur. The proposed deadline of December 31, 2006 will allow time for the operator to obtain assistance to develop and implement the CNMP. Although the rule deadline is more than a year following the effective date of these rule amendments, the requirement is consistently being implemented in advance of the date, by establishing the requirement in all dairy CAFO permits

being processed by the executive director. The commission made no change to the rule in response to this comment.

Mayor Ethridge commented that the reduction of P in a dairy cow's diet, which was part of the TMDL implementation plan, is not included in the rule. EPA commented that §321.42(s) of the rules should include provisions which address the recommendation in the TMDL implementation plan for dietary reduction of P.

The commission agrees the implementation plan identifies the reduction of P in diet as a strategy. However, the requirement in §321.42(s) for a CNMP, applicable to all dairy CAFOs in the major sole-source impairment zone, adequately addresses the concern of the commenter. A CNMP requires a holistic consideration of nutrient sources at the CAFO and the development of a plan to manage all nutrient sources. The dairy operators will consider a P-reduced diet as one of many options in the operation-wide analysis during the plan's development.

OPIC commented that in §321.42(s) certification of CNMPs by the TSSWCB should not preclude independent review of the plan by the commission. OPIC commented that the commission should retain oversight to ensure that CAFO program requirements are met because the commission has legal responsibility to administer the rules.

No changes were made to the rule in response to this comment. The commission recognizes the TSSWCB policy, supported by Texas Agriculture Code, §201.006, that any conservation plan

developed through a soil and water conservation district and certified by the TSSWCB is a confidential agreement with a landowner.However, the recordkeeping and monitoring requirements of this rule that exist between any CAFO permit and the commission provide sufficient information to determine if program requirements are being achieved. Additionally, compliance monitoring activities by the commission to inspect CAFOs and to respond to notices of noncompliance provide adequate oversight of facilities using CNMPs.

NRCS commented that in §321.42(u) 90 days is not enough time to accomplish requirements of this subsection.

The commission agrees that a modification of the RCS requires substantial planning, design, and construction activities by the operator. Therefore, the rule incorporates a variance procedure afforded to the operator. The commission did not make a change to the rule in response to this comment.

OPIC commented that in §321.42(u) it supports application of a 25-year, ten-day standard to unauthorized discharges from any RCS sized using the SPAW model. OPIC also suggested a requirement of automated monitoring and notification equipment upon the occurrence of an unauthorized discharge from an RCS located in a major sole-source impairment zone. OPIC added that this proposal is similar to the requirement for an automated system on irrigation equipment after an unauthorized discharge from an LMU.

The commission acknowledges the comment. The commission disagrees that the rule should mandate the installation of an automatic monitoring or notification system. These needs will be reviewed in consideration of site-specific factors and the nature or gravity of an unauthorized discharge. The commission made no change to the rule in response to this comment.

TAD commented that the requirement in the proposed rule for RCSs to be designed to hold a 25 year, ten-day rainfall event of 11.9 inches would require a 65% increase in design capacity. TAD and other dairy operators did not agree to this requirement. TAD stated that even though EQIP funds have been promised to pay up to 75% of the costs for the increased size, the 25% still represents a significant economic burden on the operator. TAD commented that a cost-benefit analysis of the requirement for additional capacity has not been done. One individual also made similar comments regarding these rule changes.

The commission agrees with the comment that the increase in capacity may require an increase in existing design capacity for some dairy CAFO operators and the rule amendment may be an economic burden. However, it is the commission's understanding that some existing CAFOs have surplus capacity that will ease the implementation of the requirements. The site-specific conditions will be a major factor in determining costs and which are not easily estimated. Also, the rules provide flexibility for attaining the margin of safety. One method includes the SPAW model which uses management practices to continue using their existing RCS. Another method could be reducing the size of the drainage area into the RCS. The commission is confident that

fewer overflows from an RCS will facilitate water quality improvements and provide substantial, long-term benefits to the North Bosque River.

§321.43. Air Standard Permit for Animal Feeding Operations (AFOs).

OPIC commented that in §321.43 the air standard permit does not require the BACT which includes airtight lagoon covers and disposal using subsurface injection. OPIC stated that these technologies are available at a reasonable cost for the control of emissions on large facilities.

The commission disagrees with this comment. Based on §116.602(c), the air standard permit must contain the requirements to meet BACT. Chapter 116 for individual air quality permits defines BACT as ". . .best available control technology, with consideration given to the technical practicability and the economic reasonableness of reducing or eliminating emissions from the facility." The commission does not specify control technologies or emission limits in Chapter 116 because the extensive diversity of facility types and emission reduction options makes specification an impractical task. In considering BACT for this standard permit, the commission considered the types of equipment that are approved as BACT for individual permits. For individual permits, a case-by-case review is performed in which an applicant presents an analysis in support of the applicant's BACT proposal. The permit reviewer evaluates the analysis and makes a case-by-case determination as to whether the facility satisfies Chapter 116 BACT requirements. To determine the technical practicability and economic reasonableness of a BACT proposal, the proposal has to demonstrate that the control has worked based on actual operation, that the

control can be expected to work based on technical analysis, and that the cost of the control is acceptable to achieve the emission reduction or elimination. The executive director's BACT evaluation is conducted using a "tiered" approach. The evaluation begins at the first tier and continues sequentially through subsequent tiers only if necessary as determined by the evaluation process. In each tier, BACT is evaluated on a case-by-case basis for technical practicability and economic reasonableness.

Tier I of the BACT evaluation involves a comparison of the applicant's BACT proposal to emission reduction performance levels accepted as BACT in recent permit reviews. In some cases, evaluation of new technical developments may also be necessary; however, the lagoon covers and subsurface injection mentioned in the comment have not been proposed by an AFO (with a typical lagoon system) authorized through an individual Chapter 116 air quality permit. The lagoon covers and subsurface injection have also not been evaluated by the commission's Air Permits Division to determine the technical practicability and economic reasonableness. In addition, one use of a new technology does not mandate that it will become BACT for the industry. Significant evaluation and management approval must occur to change BACT. The air standard permit under this chapter does allow for innovative technology and would not preclude an AFO from using a covered lagoon system provided it is equivalent to the current waste treatment methods that are considered BACT for controlling odors from AFOs.

Current BACT for AFOs consists of the following: 1) wastewater systems which satisfy all commission rules and regulations and are designed for proper treatment of waste to minimize

odors; 2) when applicable, the use of multiple-stage lagoon systems, where the primary lagoon can be operated at a constant level, with a secondary lagoon used for irrigation; 3) lagoon design consistent with current ASAE and/or NRCS standards, if applicable; 4) proper land application of manure and lagoon effluent; 5) scraping and removal of manure from all pens, cow traffic alleys, under-cage pits, etc. to minimize odors and nuisance conditions; 6) proper pen drainage; 7) proper stockpiling of manure; 8) control of dust from any on-site feedmilling and/or feed handling sources; and 9) as necessary, treatment of road surfaces to minimize dust and nuisance conditions.

Section 321.43 contains all of the previously mentioned requirements; therefore, it is representative of current BACT.

NRCS commented that in §321.43(a) non-CAFOs should be exempted from the requirements of this section.

The commission disagrees with this comment. Based on the definition of "facility" in 30 TAC Chapter 116, §116.10(6), all AFOs (regardless of size) require air quality authorization. This authorization can be achieved by meeting all of the applicable requirements in §106.161, obtaining an individual permit under Chapter 116, or meeting all of the applicable requirements in §321.43. Those operations with less than 1,000 cattle, horses, mules, swine, sheep, and goats as well as the caged poultry operations with less than 30,000 birds and all dry litter poultry operations meet §106.161 with no required registration and no specific operational requirements. It is expected that these operations will continue to be authorized under the permit by rule; however, the

commission did not want to preclude an AFO from using the air standard permit under Chapter 321 if it provided a better option for authorization.

TPF commented that in §321.43(b) the air standard permit should include provisions for incinerators and emergency generators that are a part of the CAFO facility. This item needs to be reworded to remove the apparent inconsistency. CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.43(b) should include provisions required in other commission permits by rule for generators and incinerators.

The commission disagrees that authorization for emergency generators and incinerators should be included in this section. Incinerators and emergency generators are currently authorized through Chapter 106, Permits by Rule. Air quality authorization for these units is complete if the specific design parameters and operational requirements in §106.494 for pathological waste incinerators and §106.511 for portable and emergency engines and turbines can be met. Registration inconsistencies would exist with the incorporation of these and potentially other permit by rule requirements into the air standard permit. For example, the air standard permit does not require registration while §106.494 does require registration and review by someone familiar with the technical requirements of the permit by rule. In addition, any changes to Chapter 106 would require changes to be made to Chapter 321. The tracking of the changes can become overwhelming and may result in some changes not being made and the requirements in Chapter 321 being out-of-date. Incorporation of the permit by rule language would also create ambiguity as to which authorization actually applies to the other activity. Further, requirements related to

other authorizations would remain unchanged whether those requirements were incorporated into the air standard permit. Therefore, because few net benefits would result, and for clarity, incinerators and emergency generators will not be included in the operations authorized by §321.43. These units will retain the option to obtain air quality authorization under permit by rule §106.494 and §106.511, as well as the option to obtain an individual Chapter 116 air quality permit should the PBR requirements not be met. Section 106.494 requires registration and review by the Air Permits Division. Section 106.511 does not require registration; therefore, authorization for emergency generators under the permit by rule does not require any additional pre-construction administrative effort on behalf of the operator that exceeds requirements already in place. The commission did not make any changes to the rule in response to this comment.

OPIC commented that in §321.43(j)(3) does not explicitly require that the primary lagoon be operated to maintain the minimum treatment volume for air quality purposes.

The commission agrees that this requirement was inadvertently omitted in this section and did not intend to remove the requirement. The commission revised the rule to require that wastewater treatment systems must be operated in accordance with the design in §321.43(j)(3).

CCC commented that §321.43(j)(2)(A) should include an exemption for requirements from odor control plans or air quality buffers for CAFOs in operation prior to August 19, 1998, and which are not expanding. TCFA, TSGRA, TPPA, and TFB commented that §321.43(j)(2)(A) should include an

exemption from requirements for odor control plans or air quality buffers for CAFOs in operation prior to August 19, 1998, and which have not expanded.

The commission disagrees with this comment. The intent of the Chapter 321 air standard permit has always been that the facility have either the 1/4 mile-buffer distance or an odor control plan which incorporates BMPs to minimize odors, dust, and other contaminants. There was not an exemption in the prior rules, and all AFOs in existence prior to the adoption of the air standard permit were required to either meet a permit by rule (or former standard exemption) or obtain a Chapter 116 individual air quality permit. In the past, the primary need for the air standard permit was for a new or expanding CAFO to obtain authorization for construction without the need to apply for a Chapter 116 individual permit or apply for an amendment to an existing Chapter 116 individual permit. Smaller operations should be able to meet §106.161 or former Standard Exemption 62. The commission made no change in response to this comment.

NRCS requested that the reference to the figure published as 30 TAC §321.43(j)(2)(A)(iii) be corrected to apply to all of subsection (j)(2)(A).

The commission agrees with this comment and moved the figure indicator and graphic to clarify that the buffer requirements apply to all of paragraph (2).

CCC, TCFA, TSGRA, TPPA, and TFB commented that §321.43(j)(2)(C) should be revised to replace "place of worship" with "church."

The commission responds that "place of worship" may be open to wider interpretation than the word "church." However, written consent from the owner of the land containing any permanent structure housing a religious institution or holding religious services is the focus of this provision. The rules have been modified to replace the term "place of worship" with "permanent structure containing a place of worship."

NRCS commented that §321.43(j)(3)(B) needs to be modified to allow flexibility because some facilities will not be able to exclude all contaminated lot runoff from the lagoon.

The commission revised the rule in response to this comment. The majority of runoff should be routed around the primary lagoon and into a secondary structure as good engineering practice. The rule has been revised to indicate that the amount of contaminated runoff into the primary lagoon shall be minimized.

OPIC commented that in §321.43(j)(3)(B) the design specifications for control facilities should be included in the same manner as under the previous rules. OPIC requests clarification regarding the reasons for these changes.

The commission responds that these design specification references were updated to reflect current engineering practices and the current standards available. The ASAE Standard D384.1 for Manure Production and Characteristics (which is referenced in the existing rules and omitted in the proposed rule language) states that whenever site-specific data are available or actual sample

analyses can be performed, such information should be considered in lieu of the mean values presented in ASAE D384.1. ASAE D384.1 may still be used to calculate manure production. The commission added the reference to ASAE EP403.3 for the design of treatment lagoons, which reflects good engineering practices. The NRCS, Field Office Technical Guidance, Practice Standard 359, Waste Treatment Lagoon is also considered a good engineering practice, uses updated values, and goes through a public review prior to being modified. The standards referenced in the rule language represent the most current information and good engineering practices. The commission made no changes to the rule in response to this comment.

TCFA and TPPA commented that in §321.43(j)(4)(A) choke feeding is not always feasible and can cause significant damage to augers and elevator legs when started under loaded conditions. This provision should be deleted or qualified with the phrase "when feasible."

The commission disagrees with this comment. The language in the proposed rule requires choke feeding or an equivalent method of control. If a facility cannot implement choke feeding procedures, another method of controlling approximately 90% of the particulate emissions from the receiving pits must be implemented. This is necessary to reduce the nuisance potential from grain dust. In addition, the grain handling portions of AFOs must also maintain compliance with the process weight allowables in Chapter 111. These process weight allowables are based on emission rates from all on-site grain handling sources. If the 90% control efficiency cannot be applied to the emission rates from receiving pits, the resulting emissions increase has the potential to exceed the calculated process weight allowable. In addition, choke feeding (or equivalent)

represents current BACT for grain handling operations, and based on §116.602(c), the air standard permit must contain the requirements to meet BACT. Therefore, the requirement cannot be deleted. Based on the information provided by applicants for Chapter 116 air quality permits for AFOs, CAFOs, grain elevators, and feedmills, the argument that choke feeding can cause significant damage to augers and elevator legs has not been demonstrated. Operators may need to evaluate the age and integrity of any augers and elevator legs that may not be able to accommodate choke feeding and consider replacement of these pieces of equipment. The commission made no changes in response to this comment.

TCFA and TPPA commented that in §321.43(j)(4)(E) the proposed language ". . .shall implement any necessary additional abatement measures to control and minimize . . ." does not apply to practical or economical considerations for potential dust control practices that may be required by the executive director. The paragraph should be amended to read "shall implement effective and economically feasible additional abatement measures . . .."

The commission disagrees with this comment. Based on §116.602(c), the air standard permit must contain the requirements to meet BACT; therefore, consideration must be given to technical practicability and the economic reasonableness of reducing or eliminating emissions from the facility. Any requirement for additional abatement measures must still meet commission rules and regulations, so there is no need to amend the rule language. The commission made no change to the rule in response to this comment.

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

Mayor Ethridge and Waco supported the addition of P to the list of analyses in §321.44(b)(1).

The commission acknowledges this comment.

§321.45. Concentrated Animal Feeding Operation (CAFO) Training Requirements.

TPF commented that §321.45(b) should be revised to "Dairy Outreach Program Area Operator Training. The operator of a *dairy* CAFO located within an area specified in the definition of Dairy Outreach Program areas . . . ".

The commission agrees that the curriculum for dairy outreach program area operator training was developed to educate operator's on the proper operation and management of waste management systems of dairy CAFOs and this provision should apply only to dairy CAFOs. The commission made this change in response to this comment.

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

OPIC commented that in §321.46(a)(1) it is inappropriate to specify that a permit or authorization will establish the requirements for the development of a PPP. OPIC commented that this should be done in the rules. OPIC also suggested that the first sentence of this subsection should be deleted.

The commission disagrees that the rule should establish the requirements of the PPP. This provision allows the executive director the flexibility to determine the appropriate PPP requirements and incorporate those requirements into individual or general permits. The commission declines to make this change to the rule.

Mayor Ethridge and Waco commented that clarification should be added to §321.46(a)(4) that an amendment to the PPP does not substitute for changes that require permit amendment.

The commission agrees that revising the PPP does not substitute for an amendment to the permit in accordance with §321.33(h); therefore, the commission replaced the term "amend" with the term "revised." A CAFO operator cannot circumvent §305.62, Permit Amendments, by revising its PPP. An increase in the number of animals, construction of new buildings or structures, or adding LMUs cannot be accomplished with a simple change to a PPP. Rather, §305.62 would require a permit amendment for such activities at a CAFO.

Four hundred and sixty-six individuals commented that in §321.46(a)(5) PPPs should not be required for dry litter poultry operations. The technical requirements of the TSSWCB WQMP should meet requirements for these operations.

The commission disagrees that a PPP should not be required for dry litter poultry operations. The PPP is a management tool that is an essential element for demonstrating environmental compliance. Therefore, the requirements in a PPP should apply to all CAFOs, including dry litter poultry operations. However, §321.46(a)(5) allows for equivalent provisions of a TSSWCB certified WQMP to substitute for applicable provisions or portions of the PPP. The commission declines to make this change to the rule.

OPIC commented that the information required in §321.46(a)(7) should be *produced* at the time of application rather than *developed*.

The PPP is an operational document that records ongoing management practices, such as rainfall logs, RCS wastewater levels, land application records, etc. This document contains information that is useful for compliance verification but not needed for permitting staff to determine if the application is sufficient. However, the executive director may request additional information from the PPP, as necessary for the permitting process. The commission declines to make this change.

TPF commented that §321.46(b)(4) should be reworded to include "where applicable:" at the end of the statement.

The commission agrees that a change is necessary in this subsection to offer the flexibility allowed in §321.34(f)(3). The commission agrees that a copy of the approved recharge feature certification must be maintained in the PPP, if applicable.

TPF commented that the requirement in §321.46(c)(1) for an engineering evaluation and recertification of structural controls and liner requirements every five years should not apply to poultry operations.

The commission agrees that an engineering evaluation and recertification of structural controls and liner requirements every five years should not apply to dry litter poultry operations. These requirements apply to facilities that have RCSs, and therefore would not apply to dry litter poultry operations because of their waste management practices. The commission revised the rule to exclude operations that do not use an RCS from this requirement.

OPIC commented that it is inappropriate to allow a geoscientist to carry out certain requirements that are engineering practices.

The commission responds that it revised §321.46(c)(1) to specify that only a licensed professional engineer can perform the site evaluation because it is an evaluation of the engineering of an RCS and the review of the sufficiency of the RCS design.

One individual commented that in §321.46(d) recordkeeping requirements for RCSs should not apply to dry poultry operations.

The commission agrees that the recordkeeping requirements in this provision which are associated with RCSs do not apply to dry litter poultry operations because of their waste management practices. The commission revised the rule to exclude dry litter poultry operations from §321.46(d)(3) - (5) and (7).

TPPA and TCFA commented that in §321.46, subsection (d)(2) seems to duplicate requirements of subsection (d)(8) and should be deleted or modified to read "(2) a log of wastewater, manure, litter, and sludge removal that shows the dates, times and recipient." Without this change it appears that the operator must maintain logs on land that is not owned, operated, controlled, leased, or rented by the CAFO.

The commission agrees that portions of the requirements of §321.46(d)(2) and (8) are duplicative. The commission revised §321.46(d)(2) so that it only applies to removal of manure, litter, or wastewater from the CAFO for off-site application or disposal. Section 321.46(d)(8) has been revised to only apply to land application by the CAFO operator.

TPF commented that §321.46(d)(3) should be reworded to "*for facilities with retention control structure*, a log of daily measurable rainfall events . . .."

The commission agrees that the recordkeeping requirements in this provision only apply to facilities that use an RCS. The commission revised the rule to specify provisions applicable to different types of facilities based on waste management practices.

Mayor Ethridge and Waco commented that the requirement in §321.46(d)(8) should also include third-party fields in major sole-source impairment zones.

The commission disagrees that recordkeeping should extend to third-party fields. Third-party field operators are not CAFOs, nor are these fields owned, operated, controlled, rented, or leased by a CAFO operator; therefore, this provision should not apply to non-CAFOs. However, to ensure implementation of P reduction strategies in the major sole-source impairment zone in accordance with §321.42(j), a CAFO operator must have a contract with the third-party field landowner which requires proper land application of manure. The dairy operator shall submit records to the appropriate regional office quarterly that contain the name, locations, and amounts of manure, litter, and wastewater transferred to operators of third-party fields. The commission declines to make this change.

CCC, TCFA, TPPA, TSGRA, and TFB commented that §321.46(d)(11) should be deleted because current commission rules and EPA rules do not have this recordkeeping requirement.

The commission agrees that recordkeeping for pesticide container storage and disposal should be deleted from the rule. Records of storage and disposal of chemical containers are required under Texas Department of Agriculture regulations. The commission agrees to make this change .

TPF commented that §321.46(e) may conflict with the requirement for an annual report. TPF commented that the rules should not require duplication of reporting requirements and should be revised

so that it is clear that soil test data need to be submitted with an annual report and may be more than 60 days after samples were collected.

The commission agrees that submittal of the soil sample laboratory analyses and the soil monitoring report form are duplicative. The commission revised the rule to require laboratory analyses of soil samples to be submitted to the agency with the annual report due February 15 of each year. This will provide timely notification to the agency of soil nutrient levels of LMUs. The annual report requires the operator to submit a soil monitoring report form which summarizes the laboratory results. However, the commission kept the requirement to submit sample results within 60 days to the commission for dairy CAFOs in a major sole-source impairment zone as stated in revised §321.42(m).

Mayor Ethridge and Waco commented that in §321.46(e) CAFOs should be required to report recordkeeping of manure and wastewater nutrient analyses required by §321.46(d)(9) and volume of manure, litter, and wastewater applied to LMUs (including third-party fields in a major sole-source impairment zone) as required by §321.46(d)(8)(B) and all information should be available to public.

The commission disagrees that the operator should be required to report information on nutrient analyses. Certified nutrient management specialists use these analyses in determining the land application rates for the NMP. On the other hand, the CAFO operator is required to submit an annual report to the commission. It contains a summary of all land application activities and records of off site removal of manure, litter, and wastewater from TPDES CAFOs. The annual

report and any information submitted to the agency is public record. The commission declines to make this change.

CCC, TCFA, TFB, TPPA, and TSCRA commented that §321.46(e)(1) should be modified to read ". . .Office of Compliance and Enforcement, Enforcement Division, soil testing analysis for all soil samples with the Annual Report due February 15 of each year" to consolidate reporting requirements. TCFA also recommend the first report be due February 15, 2006 to allow time for development of the forms and revision of recordkeeping systems by commission.

The commission agrees with this comment and changed the date that laboratory analyses of the soil samples must be submitted to the agency to coincide with the annual report due February 15 of each year. The annual report as described in §321.36(j) requires the operator to submit a soil monitoring report form which summarizes the laboratory results. The annual report is required for all large, medium and small TPDES CAFOs. The commission is currently in the process of developing the necessary forms to implement this federal requirement.

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

TFB commented that the proposed rules should retain language from former §321.33(d) that any facility, including all poultry operations as described in TWC, §26.302, which qualifies for, obtains, and is operating under a CWQMP from the TSSWCB is not a CAFO for purposes of this subchapter

and is not covered by the provisions of this subchapter, unless referred to the commission in accordance with Texas Agriculture Code, §201.026. TFB stated that this should remain applicable to smaller AFOs.

The commission retained the authorization by rule provisions of the rule in §321.47 for an AFO that is not a CAFO. The authorization does not require registration. A WQMP certified by the TSSWCB is identified in §321.47(c)(7) as a plan that can satisfy requirements of this subchapter. The existing memorandum of understanding between the commission and the TSSWCB identify procedures for compliance evaluation and response by the agencies for these AFOs. Additionally, a dry litter poultry operation, now defined as a point source, is under the commission's jurisdiction.

CCC, TFB, TCFA, TPPA, TSCRA, TSGRA, and USDA/NRCS commented that requirements of this section were overly prescriptive and burdensome for most smaller AFO operations. NRCS recommended that all non-CAFO operations be excluded from the detailed requirements. The other commenterss recommended that the more restrictive requirements be applicable only to AFOs with animal numbers which exceed those defined as medium CAFOs. The commenters further noted that AFOs are nonpoint sources not subject to regulation under federal CAFO rules and recommended that this section recognize that the preferred method of managing AFO nonpoint source pollution is by use of WQMPs developed by the TSSWCB as addressed in Texas Agriculture Code, Chapter 201.

The commission responds that §321.47 is necessary as a method of authorization for AFOs because TWC, §26.121, does not allow a discharge of agricultural waste without authorization. Thus, the commission declines to limit the applicability of §321.47 based on the size of the facility since it would exclude small feeding operations below such a number threshold that may require coverage. Exemption from the requirements of this section should be based on the method of operation rather than upon size or number of animals involved. EPA relied on data from a number of sources to justify the threshold values for CAFOs. Even though the federal regulations are primarily aimed at the establishment of operational requirements for larger facilities, there are provisions which recognize that medium and small AFOs can have a significant environmental impact if not operated and managed appropriately.

The EPA, in its preamble to the new federal CAFO rules, explained the scope of the AFO definition. Specifically, EPA stated that true pasture and rangeland operations are not considered AFOs, because animals are in areas such as pastures, croplands, or rangelands, that sustain crops or forage growth during the normal growing season. Additionally, EPA stated that in some pasture-based operations animals may freely wander in and out of particular areas for food or shelter, so this is not considered as confinement. EPA noted that pasture and grazing operations may also have confinement areas that may qualify as an AFO. Second, EPA stated that incidental vegetation in a clear area confinement, such as a feedlot or pen, would not exclude an operation from meeting the definition of an AFO. Third, in the case of a winter feedlot, the "no vegetation" criterion in the AFO definition is meant to be evaluated during the winter when the animals are confined. Therefore, use of a winter feedlot to grow crops or other vegetation during periods of

the year when animals are not confined would not exclude the feedlot from meeting the definition of an AFO. Most importantly, EPA noted that animals must be stabled or confined for at least 45 days out of any 12-month period to qualify the operation as an AFO. Lastly, EPA assumes that AFOs and permitting authorities will use common sense and sound judgment in applying the definition.

The commission recognizes that the suggested threshold similar to that defined as a medium CAFO in this rule consistent with the federal regulation has some justification. However, the commission has sufficient documentation of negative impact from facilities in this size range and does not agree to provide an exemption from the requirements of this section. The existing language related to applicability along with the additional provision that recognizes the role of the TSSWCB WQMPs is adequate to insulate the small AFOs from unnecessarily prescriptive and burdensome regulations.

The commission considers the economic impact of the implementation and enforcement of environmental regulations to small businesses in general, and small AFOs in particular. The commission also recognizes that the extent of environmental controls necessary to protect resources of the state will vary depending on size and complexity of the operation. The recognition of this variability and the economic burden of implementing this regulation is reflected in §321.47(b) by including general requirements for AFOs which do not require control facilities to manage manure, litter, and wastewater generated on site. First, the rule states that an AFO

not defined or designated as a CAFO that uses a control facility must comply with the requirements in §321.47.

Second, the commission recognizes the key role and statutory responsibility that the TSSWCB has been given with regard to control of nonpoint source pollution in the state. New §321.47(b)(2) provides that a TSSWCB's certified water quality management plan, along with compliance of subsection (c)(1) - (3) will meet all the technical requirements of this section. If the owner of an AFO does have a control facility, §321.47(c)(7) indicates that equivalent measures contained in a plan developed by the TSSWCB and other plans required by other agencies can satisfy the technical requirements in this subchapter.

Third, the commission modified §321.47(b) to more clearly specify the type of AFO that is not subject to the detailed technical requirements of this section. The adopted changes include specifying that an owner of an AFO who does not use a control facility is only subject to general requirements in adopted §321.47(b)(3). In addition, the facility may be subject to other requirements in §321.47 if the owner changes the operation and needs to use a control facility. For example, a rancher who has a pasture-based livestock operation would not be subject to this subchapter when the number of days in confinement do not exceed the numerical threshold identified in the definition of an AFO in §321.32(3). As another example, an owner of a horse stable confining the animals is an AFO; however, the owner would only be subject to the general requirements of §321.47(b)(2) to protect water quality and prevent the occurrence of a nuisance.

Mayor Ethridge and Waco commented that §321.47(c)(3) does not specify the design rainfall event for retention structures for AFOs, but seems to allow the 25-year, 24-hour design standard applicable to most CAFOs. The commenters recommended that the same margin of safety applied to CAFOs in a major sole-source impairment zone be applied to AFOs in a major sole-source impairment zone.

The commission responds that AFOs that use a control facility must design and maintain an RCS to contain the 25-year, 24-hour storm event. The commission does not have data available which demonstrates that RCSs for AFO facilities in a major sole-source impairment zone that are designed and are properly managed contribute to impaired water quality. However, the commission does share the concern about the potential for unauthorized discharges to contribute to the impairment of surface water. The commission notes that §321.33(b)(5) allows the executive director to designate an AFO as a CAFO and therefore require a permit and any applicable requirements associated with the major sole-source impairment zone.

Mayor Ethridge and Waco commented that the last sentence in §321.47(c)(6) should be revised to read: ". . . from inundation and damage that may occur during that flood event." OPIC commented in §321.47(c)(6) that any control facility located within the 100-year flood plain should be protected against the highest level of the 100-year flood, regardless of rainfall event duration.

The commission agrees with this recommendation and changed this subsection to be consistent with other rules of the commission.

NRCS commented that §321.47(c)(7)(D) could be confusing because the term "comprehensive nutrient management plan" is represented in parentheses as "NMP."

The commission has changed the acronym "NMP" to "CNMP" in response to this comment.

Mayor Ethridge and Waco commented that §321.47(e)(6) should be changed so that AFOs in a major sole-source impairment area with RCSs with permanent pond markers should be marked in one-foot intervals.

The requirement for the one-foot increments is associated with an RCS management plan which only CAFOs in the major sole-source impairment zone must implement. The commission made no change in response to this comment.

OPIC commented on existing §321.38(g) indicating that it is in appropriate to allow a geoscientist to carry out certain requirements that are engineering practices.

In response, the commission revised §321.39(b)(5) to remove the identification of an NRCS engineer to evaluate damage to an RCS liner. The engineering work identified by the requirements must be performed by a licensed Texas professional engineer. It is not relevant and could raise confusion to identify some special class of engineer or agency affiliation of an engineer. Further, the commission received information from the NRCS indicating that deletion of the term "NRCS engineer" should not have a negative impact on NRCS operations.

TPF commented that dry broiler/breeder operations do not utilize RCSs; therefore, the requirement in §321.47(i)(1)(D) for a daily rainfall record is not necessary for these facilities.

The commission did not revise this subsection in response to this comment. While it is understood that dry litter broiler/breeder poultry operations do not usually require a RCS in their operations, this provision can provide critical records for AFOs other than dry litter poultry facilities. Daily records are not required in this provision, but the required records of measurable rainfall can be important for AFOs that rely on this information for management of land application areas as well as RCSs. Additionally, if the AFO does not have control facilities these recordkeeping requirements do not apply at all.

SUBCHAPTER B: CONCENTRATED ANIMAL FEEDING OPERATIONS

§§321.31 - 321.47

STATUTORY AUTHORITY

The amendments are adopted under TWC, §5.102, which provides the commission with the general authority necessary to carry out its duties and general powers under its jurisdiction; TWC, §5.103, which provides the commission with the general authority to adopt rules; TWC, §5.105, which is the commission's authority to set policy by rule; and TWC, §5.013, which states the commission's authority over various statutory programs.

These amendments are also adopted under TWC, §26.011, regarding the commission's authority over water quality in the state; TWC, §26.028, which provides the commission's authority to approve certain applications for wastewater discharge; and TWC, §26.0286, which requires the commission to process an application for authorization to construct or operate a CAFO located in the protection zone of a sole-source surface drinking water supply as an application for an individual permit.

These amendments are also adopted under TWC, §26.040, under which the commission has authority to amend rules adopted under §26.040 prior to its amendment by House Bill 1542 in 1997, in order to continue to regulate small AFOs under a permit by rule. In addition, §26.040 authorizes the commission to approve a general permit to authorize the discharge of waste into or adjacent to water in the state by a category of dischargers that engage in the same or substantially similar types of operations.

These amendments are also adopted under TWC, §26.041, which allows the commission to use any means provided by Chapter 26 to prevent a discharge of waste that is injurious to public health; and §26.048, which allows the commission to propose rules to prohibit the discharge into a playa or use of it as a wastewater retention facility. In addition, these amendments are adopted under TWC, §26.121, which prohibits the discharge of waste into or adjacent to any water in the state except as authorized with a commission permit or other authorization.

These amendments are also adopted under TWC, Chapter 26, Subchapter L, which requires the commission to authorize the construction or operation of a new or expanded dairy CAFO located in a major sole-source impairment zone through an individual permit, which must contain specific requirements for the management and beneficial use of animal waste, and sets forth waste application field soil sampling and testing requirements that apply to all dairy CAFOs within a major sole-source impairment zone.

These amendments are also adopted under Texas Government Code, §2001.006, which provides state agencies the authority to adopt rules or take other administrative action that the agency deems necessary to implement legislation.

Finally, these amendments are also adopted under Texas Health and Safety Code, §382.011, which provides the commission the authority to control the quality of the state's air; §382.017, which authorizes the commission to propose rules consistent with the policy and purposes of the Texas Clean Air Act and to propose rules that differentiate among particular conditions, particular sources, and

particular areas of the state; §382.012, which authorizes the commission to prepare and develop a comprehensive plan for proper control of the state's air; and §382.051, which provides the commission the authority to issue air standard permits. These amendments are also adopted under Texas Health and Safety Code, §382.05195, which authorizes the commission to issue and amend air standard permits for new or existing similar facilities, and to propose rules to implement and administer the issuance, amendment, renewal, and revocation of authorizations to use standard permits.

§321.31. Manure, Litter, and Wastewater Discharge and Air Emission Limitations.

(a) There shall be no discharge or disposal of manure, litter, or wastewater from an animal feeding operation (AFO) into or adjacent to waters in the state, except in accordance with an individual water quality permit issued by the commission, or a concentrated animal feeding operation (CAFO) general permit or other authorization issued or adopted by the commission. Manure, litter, and wastewater generated by an AFO under this subchapter shall be retained and utilized in an appropriate and beneficial manner as provided by commission rules, orders, authorizations, CAFO general permits, or individual water quality permits.

(b) AFOs shall be operated in such a manner as to prevent the creation of a nuisance or a condition of air pollution as mandated by Texas Health and Safety Code, Chapter 341 and Chapter 382.

§321.32. Definitions.

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

(1) **Agronomic rates** - The land application of manure, litter, or wastewater at rates of application in accordance with a plan for nutrient management designed to enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth.

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

(3) **Animal feeding operation (AFO)** - A lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or postharvest residues in the normal growing season over any portion of the lot or facility. Two or more AFOs under common ownership are a single AFO if they adjoin each other, or if they use a common area or system for beneficial use of wastes. A land management unit is not part of an AFO.

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

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

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

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

(8) **Catastrophic conditions** - Conditions that cause structural or mechanical damage to the AFO from natural events including high winds, tornados, hurricanes, or other natural disasters, other than rainfall events.

(9) **Certified nutrient management specialist** - An organization in Texas or an individual who is currently certified as a nutrient management specialist through a United States Department of Agriculture-Natural Resources Conservation Service recognized certification program .

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

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

(12) **Comprehensive Nutrient Management Plan (CNMP)** - A resource management plan containing a grouping of conservation practices and management activities that, when implemented

in a conservation system, will help ensure that both agricultural production goals are achieved, and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are minimized.

(13) **Concentrated animal feeding operation (CAFO)** - Any animal feeding operation (AFO) defined as follows:

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

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

(ii) 1,000 veal calves;

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

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

(v) 500 horses;

(vi) 10,000 sheep or lambs;

(vii) 55,000 turkeys;

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

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

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

(B) **Medium CAFO** - Any AFO with the following number of animals that discharges pollutants into water in the state either through a man-made ditch, flushing system, or other similar man-made device, or directly into water in the state that originates outside of and passes over, across, or through the facility or otherwise comes into direct contact with animals confined in the operation:

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

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

(iii) 300 to 999 veal calves;

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

(v) 150 to 499 horses;

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

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

(viii) 37,500 to 124,999 chickens (other than laying hens and other than a liquid manure handling system);

(ix) 9,000 to 29,999 laying hens or broilers (if a liquid manure handling system), or 25,000 to 81,999 laying hens (if other than a liquid manure handling system); or

(x) 1,500 to 4,999 ducks (if a liquid manure handling system), or 10,000 to 29,999 ducks (if other than a liquid manure handling system).

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

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

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

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

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

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

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

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

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

(21) **Historical waste application field** - An area of land located in a major sole-source impairment zone that at any time since January 1, 1995, has been owned or controlled by an operator of a concentrated animal feeding operation (CAFO), and on which agricultural waste or wastewater from a CAFO has been applied.

(22) **Hydrologic connection** - The connection and exchange between surface water and groundwater.

(23) **Lagoon** - A retention control structure used for the biological treatment of liquid organic wastes. Lagoons can be aerobic, anaerobic, or facultative depending on their design and can be

used in a series to produce a higher quality effluent. Treatment volume must be included in the lagoon design.

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

(25) **Land management unit (LMU)** - An area of land owned, operated, controlled, rented, or leased by an animal feeding operation (AFO) owner or operator to which manure, litter, or wastewater from the AFO is or may be applied. This includes land associated with a single center pivot system or a tract of land on which similar soil characteristics exist and similar management practices are being used. LMUs include historical waste application fields. The term "land management unit" does not apply to any lands not owned, operated, controlled, rented, or leased by the AFO operator for the purpose of off-site land application of manure, wherein the manure is given or sold to others for land application.

(26) **Letter of consent** - A document signed by the owner or the authorized legal representative of the owner(s) of an occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park, or a document signed by the governmental entity or the authorized legal representative of the entity responsible for the operation of a school or public park. The document specifically consents to location and operation of permanent odor sources of an animal feeding operation within the minimum buffer

distance required under §321.43 of this title (relating to Air Standard Permit for Animal Feeding Operations (AFO)).

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

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

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

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

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

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

(ii) for which the commission, at some time, prepared and submitted a total maximum daily load standard.

(30) **Manure** - Feces and/or urine excreted by animals. Manure includes manure, bedding, compost, feed, and other raw materials commingled with feces and/or urine.

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

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

(33) **Nutrient management plan (NMP)** - The Natural Resources Conservation Service Practice Standard Code 590 plan. A plan to address the amount, source, placement, form, and timing of the application of all nutrients and soil amendments.

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

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

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

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

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

(39) **Permanent odor sources** - Those odor sources that may emit odors 24 hours per day. For the purposes of this subchapter, permanent odor sources include, but are not limited to, pens, confinement buildings, lagoons, retention control structures, manure stockpile areas, and solid

separators. For the purposes of this subchapter, permanent odor sources shall not include any feed handling facilities, land application equipment, or land management units.

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

(41) **Pesticide** - A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

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

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

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

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

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

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

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

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

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

(46) **Recharge feature** - Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connection between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connections include, but are not limited to: faults, fractures, sinkholes, or other macro pores that allow direct surface infiltration; a permeable or shallow soil material that overlies an aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer.

(47) **Retention control structure (RCS)** - Any basins, ponds, pits, tanks, conveyances, and lagoons used to store and/or treat manure, litter, wastewater, and sludge. This RCS does not include conveyance systems such as irrigation piping or ditches that are designed and maintained to convey but not store any manure, litter, or water.

(48) **Significant concentrated animal feeding operation (CAFO) expansion** - Any change to a CAFO that increases the waste production at the CAFO by more than 50%, above the maximum operating capacity stated in the notice of intent, during the term of the general permit%.

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

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

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

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

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

(54) **Twenty-five-year, 24-hour rainfall event** - The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the

National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments; or equivalent regional or state rainfall information.

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

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

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

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

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

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

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

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

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

§321.33. Applicability and Required Authorizations.

(a) Permit required. All concentrated animal feeding operations (CAFOs) are point sources that require owners and operators to seek and obtain authorization under a water quality general permit

or individual permit. CAFO owners and operators have a duty to seek coverage as described in this section.

(b) Individual permit required. A discharge from the following CAFOs may be authorized only under an individual water quality permit in accordance with §321.34 of this title (relating to Permit Applications). Except as provided by subsections (e) and (f) of this section, any operator who is required to obtain an individual water quality permit under this subsection may not commence physical construction and/or operation of any new control facilities until an individual water quality permit is issued for that CAFO, or unless otherwise authorized by the commission in accordance with Texas Water Code (TWC), §26.027(c)).

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

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

(3) Any CAFO where, on the date the executive director determines that the application is administratively complete, any part of the production area of the CAFO is located or proposed to be located within the protection zone of a sole-source surface drinking water supply, in accordance with TWC, §26.0286.

(4) Any CAFO where any part of the production area or land management units is located in a watershed of a segment listed on the current United States Environmental Protection Agency-approved 303(d) list of impaired water bodies, as required by 33 United States Code (USC), §1313(d), and where a total maximum daily load implementation plan has been adopted by the commission that established additional water quality protection measures for CAFOs that are not required by the CAFO general permit.

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

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

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

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

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

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

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

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

(c) Individual permit or general permit required. A discharge from any other CAFO shall be authorized either by an individual water quality permit or an applicable CAFO general permit. Except as provided by either subsection (e) or (f) of this section, any operator required to obtain an individual water quality permit or authorization under a CAFO general permit according to this subsection may not begin physical construction or operation of any new control facility until the CAFO operator receives an individual water quality permit or authorization under a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

(d) New or expanding AFO. After the effective date of this subchapter, no person may commence construction or operation of a new CAFO or alter any existing AFO such that it becomes defined as a CAFO without prior authorization through an individual water quality permit or a CAFO general permit, unless otherwise authorized by the commission under TWC, §26.027(c).

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

(f) Dry litter poultry operations. Existing dry litter poultry operations must obtain authorization by an individual water quality permit or a CAFO general permit in accordance with subsection (a), (b), or (c) of this section not later than April 13, 2006.

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

(h) Expansion or modification requirements. A CAFO operator authorized under an individual water quality permit shall comply with §305.62 of this title (relating to Amendment). Before the permittee begins physical construction or operation of any new control facility, the operator must obtain commission authorization. Changes for which a permit amendment is required include, but are not limited to:

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

(2) increasing the wastewater storage volume; and

(3) adding land management units.

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

(j) Runoff from a land management unit.

(1) The runoff of manure, litter, or wastewater to water in the state from a CAFO as the result of the proper land application of that manure, litter, or wastewater to land management units

under the operator's control is subject to the requirements of this subchapter in accordance with paragraph (2) of this subsection.

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

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

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

(k) Edwards Aquifer. New CAFOs are prohibited on the Edwards Aquifer recharge zone.

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

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

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

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

§321.34. Permit Applications.

(a) Any operator of an animal feeding operation (AFO) who is required to operate under an individual water quality permit by the Texas Water Code, the executive director, or this subchapter shall submit an application in accordance with Chapter 281 of this title (relating to Applications Processing) and Chapter 305 of this title (relating to Consolidated Permits). The applicant shall provide such additional information in support of the application as may be necessary for the executive director to carry out an adequate administrative and technical review of the application.

(b) Applicants shall comply with §§305.41, 305.43, 305.44, and 305.47 of this title (relating to Applicability; Who Applies; Signatories to Applications; and Retention of Application Data) and

§1.5(d) of this title (relating to Records of the Agency). Except as provided in subsection (c) of this section, §§305.61 - 305.68 of this title (relating to Applicability; Amendment; Renewal; Transfer of Permits; Permit Denial, Suspension, and Revocation; Revocation and Suspension upon Request or Consent; and Action and Notice on Petition for Revocation or Suspension) apply to applications for water quality permits. Notice, public comment, and contested case hearings on applications shall be conducted in accordance with commission rules governing applicable individual water quality permit applications.

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

(2) If an individual water quality permit application or an NOI for a CAFO general permit has been submitted before the expiration date of the existing authorization, the terms and conditions of the existing permit continues in effect until final commission action on the permit application or until the CAFO qualifies for authorization under a CAFO general permit.

(3) A CAFO owner or operator who submits an NOI for a CAFO general permit for a new operation or significant CAFO expansion as defined by §321.32(48) of this title (relating to Definitions) shall comply with the public participation process detailed in the CAFO general permit. Expansions which are not considered significant only require the CAFO owner or operator to amend the

pollution prevention plan and meet all the technical requirements of this subchapter and the permit or authorization.

(4) The executive director may renew an application for an individual water quality permit for a state-only CAFO without contested case hearing if the application does not propose any change that constitutes a major amendment as defined in Chapter 305 of this title (relating to Consolidated Permits) or if the operation is not a major source as defined under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification). Renewal under this paragraph is allowed only if there has been no related formal enforcement action against the facility during the last 36 months of the term of the individual water quality permit in which the commission determined that:

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

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

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

(5) For any application for renewal within an area specified in §321.32(17) of this title (relating to Definitions), the executive director will conduct an annual compliance inspection within 12 months of the date the executive director declares the application administratively complete.

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

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

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

(f) Applications for an individual water quality permit under this section shall be made on forms prescribed by the executive director. The applicant shall submit an original completed application with attachments to the executive director at the commission headquarters in Austin, and

one additional copy of the application with attachments to the appropriate commission regional office. At a minimum, the executive director will require the following information to be submitted, as it is applicable to the facility:

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

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

(3) a recharge feature certification, signed and sealed by a licensed Texas professional engineer, or a licensed Texas professional geoscientist, documenting the absence or presence of any natural or artificial recharge features identified on any tracts of land owned, operated, controlled, rented, or leased by the applicant and to be used as a part of a CAFO or land management unit. A certified water quality management plan prepared by the Texas State Soil and Water Conservation Board that is developed for a dry litter poultry facility that evaluates site-specific recharge characteristics and management practices of the operation will meet the recharge feature requirement of this paragraph.

(A) Documentation by the certifying party shall identify:

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

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

(B) In preparing the recharge feature certification, the licensed Texas professional engineer or Texas professional geoscientist must conduct an on-site inspection and must review all pertinent records and maps maintained by the following entities or persons to locate any artificial recharge feature:

(i) Railroad Commission of Texas;

(ii) a Groundwater Conservation District, if applicable;

(iii) Texas Water Development Board;

(iv) the commission;

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

(vi) previous owner of site, if available.

(4) where the applicant documents the presence of recharge features on the tracts for which an application is being filed, the applicant shall submit a plan. The plan must be signed and sealed by a licensed Texas professional engineer or licensed Texas professional geoscientist, as appropriate and in conformance with the Texas Engineering Practices Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The plan must prevent impacts to an aquifer from any recharge features present. The plan must include at least one of the following:

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

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

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

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

§321.35. Fees.

(a) Application fee. Each applicant for an individual water quality permit shall pay an application fee as required by §305.53 of this title (relating to Application Fee).

(b) Annual assessment fees. Each permittee shall pay a consolidated annual fee as required by Chapter 21 of this title (relating to Water Quality Fees).

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

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

(b) Permits. A CAFO shall comply with §305.125 of this title (relating to Standard Permit Conditions) and all applicable permit conditions contained in commission rules. Requirements to provide for and ensure compliance with standards set by the rules of the commission and the laws of

Texas shall be determined and included in an individual water quality permit on a case-by-case basis to reflect the best method for attaining such compliance. Each permit shall contain terms and conditions as the commission determines necessary to protect human health and safety, and the environment.

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

(d) Nutrient management plan (NMP).

(1) On or before December 31, 2006, the operator of a CAFO shall develop and implement an NMP certified in accordance with the Natural Resources Conservation Service Code 590 Practice Standard. The plan shall include site-specific nutrient management practices that ensure appropriate agricultural utilization of nutrients in the manure, litter, or wastewater.

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

(3) Compliance with the requirements of this section and applicable requirements for the design and operation of a control facility, as described in §321.38 and §321.39 of this title (relating

to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs) and Control Facility Operational Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)) constitute compliance with the provisions of 40 Code of Federal Regulations (CFR) §122.42(e)(1)(i) - (ix).

(e) Manure, litter, and wastewater management.

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

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

(A) the date of removal from the CAFO;

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

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

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

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

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

(g) Soil sampling and testing.

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

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

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

(A) Samples shall be collected using approved procedures described in the agency's publication "Soil Sampling for Nutrient Utilization Plans (RG-408)."

(B) Samples shall be collected by the operator or its designee and analyzed by a soil testing laboratory within the same 45-day time frame each year, except when crop rotations or inclement weather require a change in the sampling time frame.

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

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

(i) Zone 1: zero to six inches (for an LMU where the manure is incorporated directly into the soil) or zero to two inches (for an LMU where the manure is not

incorporated into the soil). Wastewater is considered to be incorporated. If a zero to two-inch sample is required under this subsection, then an additional sample from the two to six-inch soil depth zone shall be obtained in accordance with the provisions of this section; and

(ii) Zone 2: six to 24 inches.

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

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

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

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

(i) Recordkeeping.

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

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

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

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

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

(j) Annual report required. An annual report shall be submitted to the executive director's Office of Compliance and Enforcement, Enforcement Division, by February 15 of each year (for the reporting period of January 1 to December 31 of the previous year) from each CAFO authorized under a CAFO general permit or through an individual water quality permit in accordance with this subchapter. The report shall be submitted on forms prescribed by the executive director and shall include, but is not limited to, the following information:

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

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

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

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

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

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

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

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

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

(10) groundwater monitoring reports; and

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

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

(l) Carcass disposal. Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §31.3 and §58.31(b).

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

maintain or renew its existing authorization and maintain compliance with the requirements of this subchapter until the facility has been closed.

§321.37. Effluent Limitations for Discharges from Production Areas.

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

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

(c) Except as provided by this section, there shall be no discharge of manure, litter, or wastewater from a poultry (chickens and turkeys), swine, or veal calf CAFO production area that is subject to the new source performance standards in 40 CFR §412.46. The operator of a poultry (chickens and turkeys), swine, or veal calf CAFO subject to the new source performance standards in 40 CFR §412.46 shall design, construct, operate, and maintain retention control structures (RCSs) to contain all wastewater including the runoff and direct precipitation from the 100-year, 24-hour rainfall event for the location of the facility as required by the federal effluent guidelines.

(d) Except as provided by this section, for all other CAFOs, there shall be no discharge of manure, litter, or wastewater from a CAFO production area. The operator of the CAFO shall design,

construct, operate, and maintain RCSs to contain all wastewater including the runoff and direct precipitation from the 25-year, 24-hour rainfall event for the location of the facility.

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

(f) Voluntary alternative performance standards may be established in an individual water quality permit for a cattle (other than veal calves) or dairy CAFO, when requested by a permit applicant. These standards may be established as effluent limitations in lieu of the requirements of subsection (d) of this section, so long as they are not in conflict with other requirements of this subchapter or other requirements of the commission. Voluntary alternative performance standards shall be consistent with the requirements of 40 CFR §412.31(a)(2).

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

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

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

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

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

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

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

(c) Buffer variance. A CAFO operating under an existing authorization may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are in accordance with the recharge feature evaluation and certification required under §321.34(f)(3) of this title (relating to Permit Applications). Documentation supporting variances of the

buffer zones that were previously authorized shall be kept on site and made available to agency personnel upon request.

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

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

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

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

(3) Except as provided in this subsection, each RCS, at a minimum, shall be designed and constructed in accordance with the technical standards developed by the Natural Resources Conservation Service (NRCS), American Society of Agricultural Engineers, American Society of Civil Engineers, or American Society of Testing Materials that are in effect at the time of construction.

Where site-specific variations are warranted, a licensed Texas professional engineer shall document these variations and their appropriateness to the design.

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

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

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

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

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

(7) The design plan must include documentation of the sources of information, assumptions, and calculations used in determining the appropriate volume capacity of the retention control structures (RCSs). The volume must include design rainfall event runoff and normal operating capacity requirements in accordance with subparagraphs (A) and (B) of this paragraph or design rainfall event runoff and evaporation systems in accordance with subparagraphs (A) and (C) of this paragraph.

(A) Design rainfall event runoff.

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

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

(B) Design capacity requirements for systems using irrigation.

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

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

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

(iv) The maximum required storage value calculated by the water balance shall not encroach on the storage volume required under subparagraph (A) of this paragraph.

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

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

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

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

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

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

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

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

(1) The design specifications for all new construction and for all structural modifications of existing RCSs must describe standards for the quality of soils used, lift thickness and density at optimum moisture content, procedures and minimum requirements for liner and embankment compaction testing, and spillway construction.

(2) For all new construction and for all structural modifications of existing RCSs, each RCS must have a minimum of two vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity, including any additional storage required by an alternative standard.

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

(A) Documentation must show that there will be no significant leakage from the RCS; or that any leakage from the RCS will not migrate to water in the state. A permit or authorization will require documentation of the lack of hydrologic connection certified by a licensed Texas professional engineer or licensed Texas professional geoscientist and must include information on the hydraulic conductivity tested at the optimum moisture content and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.

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

(C) Site-specific conditions may be considered in the design and construction of liners. Where no site-specific assessment has been performed demonstrating that there will be no significant leakage from the RCS or that any leakage from the RCS will not migrate to water in the state, a liner must be designed by a licensed Texas professional engineer and documented to have hydraulic conductivities no greater than 1×10^{-7} centimeters per second (cm/sec), with a thickness of 1.5 feet or greater or its equivalency in other materials. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. The operator shall maintain the liner to minimize the percolation of wastewater through the liner.

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

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

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

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

(a) Purpose. The purpose of this section is to describe the control facility operational requirements that apply to concentrated animal feeding operation (CAFO) general or individual water quality permits or other authorizations allowed by this subchapter.

(b) Retention control structure (RCS) operation and maintenance. A CAFO using an RCS for storage and treatment of storm water, sludge, or process-generated wastewater, including liquid manure

handling systems, shall ensure that the required capacity in the RCS is available to contain rainfall and rainfall runoff from the required rainfall event.

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

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

(3) If an RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, then the CAFO operator shall take reasonable steps to irrigate wastewater to land management units (LMUs) only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from an LMU, the CAFO operator shall collect samples from the drainage pathway at the point of discharge from the edge of the LMU where the discharge occurs for the parameters identified in §321.44(b)(1) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Notification Requirements). The operator shall orally notify the appropriate

regional office within 24 hours of beginning irrigation under this provision and in writing within 14 working days.

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

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

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

(1) Sludge shall be removed from RCSs in accordance with the design schedule for cleanout to prevent the accumulation of sludge from exceeding the designed sludge volume of the structure.

(2) The operator shall provide written notice to the appropriate regional office of the commission as soon as the RCS cleaning is scheduled, but not less than ten days before cleaning. The operator shall also provide written verification of completion to the same regional office within five days after the cleaning has been completed. This paragraph does not apply to cleaning of solid

separators or settling basins. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Any increase in odors associated with a properly managed cleanout under this subsection will be taken into consideration by the executive director when determining compliance with the provisions of this subchapter.

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

(e) Storage of waste. A permit or authorization will establish requirements for the temporary storage of manure, litter, or sludge not to exceed 30 days, and requirements for permanent storage for more than 30 days. If the manure areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the manure areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

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

(g) Maintenance of animals.

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

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

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

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

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

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

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

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

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

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

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

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

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

(k) Any CAFO operator who owns, operates, controls, rents, or leases land where manure, litter, or wastewater from the CAFO is land applied must be in compliance with the deadline and requirements specified in §321.36(d) of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)). Before this deadline, the operator of any existing CAFO must manage nutrients on LMUs according to all other applicable requirements of this subchapter.

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

(2) Critical phosphorus level. A permit or other authorization shall establish the appropriate threshold for phosphorus in the soil and the requirements to develop the nutrient utilization plan (NUP). If an operator is required to develop a NUP, the operator shall cease land application of

manure, litter, or wastewater to the affected area and may resume only after a detailed NUP has been implemented.

(3) NUP. An NMP (Practice Standard 590) certified as meeting the NRCS standard is equivalent to the requirements for a NUP. The NUP, based on crop removal, must be developed and certified by an employee of the NRCS, a nutrient management specialist certified by the NRCS, the Texas State Soil and Water Conservation Board, Texas Cooperative Extension, an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas, or a professional agronomist or soil scientist certified by the 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 licensed geoscientist-soil scientist in Texas after approval by the executive director based on a determination by the executive director that another person or entity identified in this paragraph cannot develop the plan in a timely manner. After a NUP is implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level. Thereafter, the operator of a CAFO shall implement the requirements of the nutrient management plan certified in accordance with §321.36(d) of this title. All other CAFOs must follow the requirements in this section.

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

§321.41. Special Requirements for Discharges to a Playa.

(a) This section applies to any animal feeding operation (AFO) operator authorized by the commission before July 13, 1995 to discharge manure, litter, or wastewater into a playa or to use a playa as a retention control structure for manure, litter or wastewater in accordance with Texas Water Code, §26.048.

(b) A playa that is in use as a retention control structure, as allowed by Texas Water Code (TWC), §26.048, and that shows no signs of leakage, is considered to satisfy all applicable design and construction requirements specified in §321.38 of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)).

(c) A groundwater plan for use of a playa shall be implemented in accordance with TWC, §26.048.

(d) If the executive director determines that contamination of groundwater is occurring as a result of use of the playa as a retention facility for manure, litter, or wastewater from the AFO, the executive director shall require action to correct the problem or revoke the AFOs authority to discharge into the playa.

§321.42. Requirements Applicable to the Major Sole-Source Impairment Zone.

(a) The purpose of this section is to describe certain requirements for individual water quality permits for dairy concentrated animal feeding operations (CAFOs) or other authorizations allowed by this subchapter when an operation is located in a major sole-source impairment zone. Additionally, subsection (i) of this section applies to any dairy animal feeding operation (AFO), including any dairy CAFO, which is located in a major sole-source impairment zone.

(b) The dairy CAFO operator must adhere to provisions of this section and the other requirements contained in this subchapter. When a requirement of this section conflicts with another requirement of this subchapter, the requirement of this section shall supercede the other requirement.

(c) The dairy CAFO operator must operate and maintain a margin of safety in the retention control structure (RCS) to contain the volume:

(1) of runoff and direct precipitation from the 25-year, ten-day rainfall event; or

(2) necessary to prevent overflow resulting from a statistically determined probability of overflow resulting in a discharge frequency of no more than once in 25 years. The margin of safety using this method must be evaluated using the Soil Plant Air and Water (SPAW) Field and Pond Hydrology Tool and be certified by a Texas licensed professional engineer.

(d) The dairy CAFO is only authorized to discharge from a properly operated and maintained RCS when the volume of the rainfall runoff and direct precipitation exceed the volume for the margin of safety that must be maintained in the RCS.

(e) If construction of new or modified RCSs is necessary to comply with subsections (c) and (d) of this section, a permit or other authorization will specify a schedule for compliance.

(f) The dairy operator shall install and maintain a permanent pond marker (measuring device) in the RCS visible from the top of the levee to show the following:

(1) the volume for the margin of safety; and

(2) one-foot increments beginning from the predetermined minimum treatment volume of the RCS to the top of the embankment or spillway.

(g) The dairy operator shall implement an RCS management plan incorporating the margin of safety developed by a licensed Texas professional engineer. The management plan shall become a component of the pollution prevention plan (PPP), shall be developed for the RCS system, and must describe or include:

(1) RCS management controls appropriate for the CAFO and the methods and procedures for implementing such controls;

(2) the methods and procedures for proper operation and maintenance of the RCS consistent with the system design;

(3) the appropriateness and priorities of any controls reflecting the identified sources of pollutants at the facility;

(4) a stage/storage table for each RCS with minimum depth increments of one-foot, including the storage volume provided at each depth;

(5) a second table or sketch that includes increments of water level ranges for volumes of total design storage, including the storage volume provided at each specified depth (or water level) and the type of storage designated by that depth; and

(6) the planned end of month storage volume anticipated for each RCS for each month of the year and the corresponding operating depth expected at the end of each month of the year, based on the design assumptions.

(h) The dairy operator shall monitor and record wastewater levels daily in the RCS. A log shall be kept in the PPP to document the level of wastewater observed each day. In circumstances where the RCS has a water level exceeding the expected end of the month depth, the operator shall document in the PPP why the level of water in the structure is not at or below the expected depth.

(i) The dairy operator shall provide for management and disposal of waste as specified in Texas Water Code, §26.503, in accordance with the following:

(1) beneficially used outside of the watershed;

(2) disposed in landfills outside of the watershed, subject to the requirements of commission rules relating to industrial solid waste;

(3) delivered to a composting facility approved by the executive director;

(4) put to another beneficial use approved by the executive director; or

(5) applied in any of the following ways:

(A) in accordance with a nutrient management plan (NMP) certified in accordance with Natural Resources Conservation Service (NRCS) Code 590 Practice Standard to a waste application field that is owned, operated, controlled, rented, or leased by the owner of the CAFO, if the field is not a historical waste application field, as defined in §321.32 of this title (relating to Definitions);

(B) in accordance with an NMP certified in accordance with NRCS Code 590 Practice standard to a historical waste application field that is owned, operated, controlled, rented, or

leased by the owner or operator of the CAFO, if results of representative composite soil sampling conducted at the waste application field and submitted to the executive director show that the waste application field contains 200 or fewer parts per million (ppm) of extractable phosphorus (reported as P) in the Zone 1 (zero to six inches) depth; or

(C) in accordance with a detailed nutrient utilization plan (NUP) approved by the executive director which, at a minimum, meets the requirements of §321.40(k)(3) of this title (relating to Concentrated Animal Feeding Operation (CAFO) Land Application Requirements), to a historical waste application field that is owned, operated, controlled, rented, or leased by the owner or operator of the CAFO, if results of representative composite soil sampling conducted at the waste application field and submitted to the executive director show that the waste application field contains greater than 200 ppm of extractable phosphorus (reported as P) in the Zone 1 (zero to six inches) depth.

(j) Permits for existing dairy CAFOs in the major sole-source impairment zone in accordance with subsection (i) of this section may allow the operator to provide manure, litter, and wastewater to operators of third-party fields, i.e., areas of land not owned, operated, controlled, rented, or leased by an AFO owner or operator, that have been identified in the PPP. The dairy operator will be subject to enforcement action for violations of the land application requirements on any third-party field under contract. The permit provision must, at a minimum, include the following requirements:

(1) there must be a written contract between the dairy operator and the recipient that requires all transferred manure, litter, and wastewater to be beneficially applied to third-party fields

identified in the PPP in accordance with the applicable requirements in §321.36 of this title (relating to Texas Pollutant Discharge Elimination System Requirements for Concentrated Animal Feeding Operations (CAFOs) and §321.40 of this title at an agronomic rate based on soil test phosphorus;

(2) the permit must prohibit the dairy operator from delivering manure, litter, or wastewater to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm or after becoming aware that the third-party operator is not following §321.36 of this title and §321.40 of this title and the contract;

(3) third-party fields identified in the PPP on which manure, litter, or wastewater have been applied during the preceding year must be sampled annually by a nutrient management specialist and the samples analyzed in accordance with §321.36(g) of this title; and

(4) the dairy operator shall submit records to the appropriate regional office quarterly that contain the name, locations, and amounts of manure, litter, or wastewater transferred to operators of third-party fields.

(k) The dairy operator must contract with the NRCS, a certified nutrient management specialist, the Texas State Soil and Water Conservation Board, the Texas Cooperative Extension, or an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas to collect one or more representative composite soil samples from each LMU including any historical waste application fields, not less than once every 12 months.

(l) The dairy operator shall notify the appropriate regional office in writing or by electronic mail with the date, time, and location at least ten working days before collecting soil samples.

(m) The dairy operator shall ensure that soil samples are analyzed in accordance with the procedures and laboratory analysis requirements in §321.36(g) of this title (relating to Texas Pollutant Discharge Elimination System General Requirements for Concentrated Animal Feeding Operations (CAFOs)). The dairy CAFO operator shall furnish to the appropriate regional office and the commission's Office of Compliance and Enforcement, Enforcement Division, soil testing analysis of all soil samples within 60 days of the date the samples were taken in accordance with the requirements of this subchapter.

(n) If the samples tested under subsection (m) of this section show a phosphorus level in the soil of more than 500 ppm in Zone 1 (zero to six inches) depth, the operator shall file with the executive director a new or amended NUP with a phosphorus reduction component based on crop removal that is certified as acceptable by a person described in §321.40(k)(3) of this title.

(o) If the samples tested under subsection (m) of this section show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm in Zone 1 (zero to six inches) depth, the operator shall:

(1) file with the executive director a new or amended NUP with a phosphorus reduction component based on crop removal that is certified as acceptable by a person described in §321.40(k)(3) of this title; or

(2) show that the level is supported by a NUP that is certified as acceptable by a person described under §321.40(k)(3) of this title.

(p) If the owner or operator of a waste application field is required by this section to have a NUP with a phosphorus reduction component based on crop removal, and if the results of tests performed on composite soil samples collected 12 months or more after the plan is filed do not show a reduction in phosphorus concentration in Zone 1 (zero to six inches) depth, then the owner or operator is subject to enforcement action at the discretion of the executive director. The executive director, in determining whether to take an enforcement action, shall consider any explanation presented by the owner or operator regarding the reasons for the lack of phosphorus reduction, including, but not limited to, an act of God, meteorologic conditions, diseases, vermin, crop conditions, or variability of soil testing results.

(q) The dairy operator shall inspect the irrigation system to prevent discharges. If a discharge from an irrigation system within the major sole-source impairment zone is documented as a violation, then the CAFO operator shall, if required by the executive director, install an automatic emergency shutdown or alarm system to notify the operator of system problems.

(r) The dairy operators are prohibited from land application of manure, litter, or wastewater in a major sole-source impairment zone between midnight and 4 a.m.

(s) All dairy CAFOs in a major sole-source impairment zone shall develop and operate under a comprehensive nutrient management plan (CNMP) certified by the Texas State Soil and Water Conservation Board. This CNMP shall be implemented not later than December 31, 2006.

(t) In addition to the requirements of §321.44 of this title (relating to Concentrated Animal Feeding Operation (CAFO) Notification Requirements), a dairy CAFO operator in a major sole-source impairment zone must comply with this subsection. In the event of a discharge from the RCS or LMU during a chronic or catastrophic rainfall event or resulting from catastrophic conditions, the dairy CAFO operator shall orally notify the appropriate regional office within one hour of the discovery of the discharge. The operator shall send written notification to the appropriate regional office within 14 working days.

(u) Any dairy CAFO operator to whom this section applies who has an unauthorized discharge from the RCS and who used the SPAW certification method for the margin of safety shall, within 90 days of written notification by the executive director, develop and implement the capacity for a 25-year, ten-day margin of safety. Upon written request, the executive director may grant a variance from the 90-day time requirement.

(v) Any dairy CAFO operator to whom this section applies shall, in the event of a discharge from an RCS or LMU, submit a report to the appropriate regional office showing the facility records that substantiates that the overflow was a result of cumulative rainfall that exceeded the volume of storage capacity and margin of safety without the opportunity for dewatering, and was beyond the control of the operator. After review of the report, if required by the executive director, the operator shall have an engineering evaluation by a licensed Texas professional engineer developed and submitted to the executive director. This requirement is in addition to the discharge notification requirement in this subchapter.

(w) For additional protection in the major sole-source impairment zone, dairy CAFO operators who utilize LMUs must:

(1) adhere to the vegetative buffer required by §321.40(h) of this title;

(2) install and maintain a filter strip or vegetative barrier, according to NRCS Codes 393 or 601, between the vegetative buffer and land application area; and

(3) install and maintain contour buffer strips, according to NRCS Code 332, in the land application area nearest to the vegetative barrier or filter strip.

§321.43. Air Standard Permit for Animal Feeding Operations (AFOs).

(a) Air quality authorization required. All animal feeding operations (AFOs), regardless of size, are required to obtain air quality authorization under the Texas Clean Air Act, Texas Health and Safety Code, Chapter 382, Subchapter C. AFOs may obtain air quality authorization in one of the following ways:

(1) by meeting the requirements of a permit by rule under Chapter 106, Subchapter F of this title (relating to Animal Confinement);

(2) by obtaining an individual permit under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification); or

(3) by meeting the requirements in this section and the general conditions for air standard permits in §116.615 of this title (relating to General Conditions).

(b) Applicability. The air standard permit requirements in this section and in §116.615 of this title are applicable to all portions of AFOs including permanent odor sources, land management units, and associated operations. The air standard permit requirements are also applicable to associated feed handling or feed milling operations (including, but not limited to, natural gas-fired boilers, milling equipment, and grain cleaners) located on the same site. This air standard permit may not be used to authorize the construction or operation of unassociated operations or equipment, including incinerators or emergency generators, located at the AFO.

(c) Water quality authorization. Authorization under this air standard permit may be obtained by AFOs with water quality authorization under:

(1) a Texas Pollutant Discharge Elimination System permit;

(2) a state-only water quality general permit;

(3) a state only individual water quality permit; or

(4) a permit by rule under this subchapter.

(d) Air standard permit in lieu of individual permit. A concentrated animal feeding operation (CAFO) or other AFO that obtains water quality authorization as provided in subsection (c) of this section, and also satisfies the air quality requirements contained in this section qualifies for an air standard permit in lieu of an individual air quality permit under Chapter 116 of this title.

(e) Obtaining the air standard permit for AFOs. The air standard permit may be obtained in conjunction with a water quality application for an individual or CAFO general permit. If no water quality application is pending, a separate written request for authorization under the AFO air standard permit may be submitted that must indicate that the AFO will comply with all the requirements in this section. Registration for authorization to operate under the air standard permit is not required.

(f) Fee. There is no fee for the air standard permit for AFOs.

(g) Facilities not eligible. A CAFO or other AFO does not qualify for authorization under the air standard permit if:

(1) the CAFO or other AFO does not have water quality authorization; or

(2) the CAFO or other AFO constitutes a new major source or is located at a site that constitutes a major source as defined by Chapter 116 of this title.

(h) Dual authorization. No person may concurrently hold both an individual permit under Chapter 116 and authorization under this air standard permit for the same AFO and associated facilities. This does not preclude the operator from holding individual permits or other applicable authorizations for facilities not authorized by this air standard permit.

(i) Restriction on use of permit by rule. An AFO authorized under this air standard permit may not claim authorization under §106.532 of this title (relating to Water and Wastewater Treatment) to construct a new retention control structure (RCS).

(j) Requirements for air standard permit authorization. AFOs shall meet the following requirements.

(1) Air emission limitations.

(A) Facilities shall be operated in such a manner as to prevent the creation of a nuisance as defined by Texas Health and Safety Code, §341.011 and §321.32(32) of this title (relating to Definitions), and as prohibited by §101.4 of this title (relating to Nuisance). Facilities shall be operated in such a manner as to prevent a condition of air pollution as defined by Texas Health and Safety Code, §382.003(3).

(B) The AFO operator shall take necessary action to identify any nuisance condition that occurs. The AFO operator shall take action to abate any nuisance condition as soon as practicable or as specified by the executive director.

(2) Buffer requirements. The buffer requirements in the following table apply to all of the requirements in subparagraphs (A) - (F) of this paragraph.

Figure 1: 30 TAC §321.43(j)(2)

AFO Status and Proposed Action	Buffer Option 1	Buffer Option 2
Construction of an AFO that started or plans to start operations after August 19, 1998.	1/2 mile buffer	1/4 mile buffer and an odor control plan in accordance with subparagraph (F) of this paragraph

Expansion of an AFO that started operations after August 19, 1998.	1/2 mile buffer	1/4 mile buffer and an odor control plan in accordance with subparagraph (F) of this paragraph
Continued operation of an AFO that was in operation on or before August 19, 1998.	1/4 mile buffer	odor control plan in accordance with subparagraph (F) of this paragraph
Expansion or modification of an AFO that was in operation on or before August 19, 1998.	1/4 mile buffer	odor control plan in accordance with subparagraph (F) of this paragraph

(A) The buffer requirements shall be satisfied at the time that the AFO operator does any of the following:

(i) claims authorization under the air standard permit for an AFO already in operation;

(ii) begins construction of a new AFO; or

(iii) begins construction for expansion or modification of an AFO already in operation by performing activities including, but not limited to, increasing the maximum

number of animals confined under the water quality authorization, constructing new pens, or constructing or modifying RCSs.

(B) The operator of an AFO shall document that the applicable buffer requirement is satisfied in accordance with this paragraph. The operator of an AFO shall maintain such documentation on site and make it available upon request by any representative of the commission.

(C) The buffer distance shall be measured from the nearest edge of the permanent odor sources to the nearest edge of any occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park.

(D) Written consent, including a letter as defined by §321.32(26) of this title (relating to Definitions), easement, or lease agreement specifically consenting to location and operation of permanent odor sources at an AFO within the required minimum buffer distance in this paragraph from the owner of the land containing each occupied residence or business structure, school (including associated recreational areas), permanent structure containing a place of worship, or public park located within the buffer distance may be obtained in lieu of satisfying the buffer distance requirements in this paragraph. Written consent from the governmental entity responsible for operating a school or public park, if the governmental entity is not the owner of the land containing the receptor, is required in addition to the consent of the owner of the land containing the receptor. An easement must be recorded

with the county. The written consent must include the following information at the time the actions specified in this paragraph occur:

(i) the name, physical address, mailing address, and phone number of the owner(s) of the land containing the receptor and of the governmental entity responsible for the operation of the receptor, if applicable;

(ii) the types of animals and maximum number of animals to be confined under the AFO operator's current and/or anticipated authorization;

(iii) a description of the activity within the buffer distance for which the owner of the land containing the receptor and the governmental entity responsible for the operation of the receptor, if applicable, is giving consent;

(iv) the description and location of permanent odor sources located or proposed to be located within the buffer distance;

(v) an acknowledgment by the owner of the land containing the receptor located within the buffer distance, and by the governmental entity responsible for the operation of the receptor, if applicable, that the consent for the owner of the land containing the AFO to locate and operate permanent odor sources within the buffer distance excuses the operator of the AFO from otherwise applicable legal requirements; and

(vi) the verified signature of the owner(s) of the land containing the receptor, and of the governmental entity responsible for the operation of the receptor, if applicable, who is consenting to the location or operation of the AFO within the buffer distance.

(E) An area land use map as defined by §321.32(5) of this title, an odor control plan, if required by this paragraph, and documentation and copies of the written consent required in subparagraph (D) of this paragraph shall be kept on site and made available upon request by the executive director.

(F) The odor control plan, if required by this paragraph, shall be developed and implemented to control and reduce odors, dust, and other air contaminants, as defined by §321.32(2) of this title, from the AFO. The plan shall identify all structural and management practices that the operator will employ to minimize odor and control air contaminants at the AFO. At a minimum, the plan shall include, where applicable, procedures for manure/litter collection, manure, litter, and wastewater storage and treatment, land application, dead animal handling, and dust control. If the executive director determines that the implementation and employment of these practices is not effective in controlling dust, odors, and other air contaminants, the operator shall include any necessary additional abatement measures in the odor control plan and implement those measures to control and reduce these contaminants within the time period specified by the executive director.

(3) Wastewater treatment. Operators of AFOs that produce process-generated wastewater (excluding water trough overflow in open lots and wastewater from boiler operations) shall

design and operate RCSs to minimize odors in accordance with accepted engineering practices. Each system shall be operated in accordance with the design and an operation and maintenance plan that minimizes odors.

(A) Accepted engineering practices to minimize odors include anaerobic treatment lagoons, aerobic treatment lagoons, or other equivalent technology. The retention control structures shall also meet the design criteria specified for water quality in this subchapter.

(B) 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); Natural Resources Conservation Service (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 Chapter 317 of this title (relating to Design Criteria for Sewerage Systems); and

(iii) equivalent technology or design standards shall indicate how the design of the AFO 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 AFO. These documents shall be maintained on site and made available within the time period specified by the executive director.

(4) Dust control. To minimize dust emissions, the AFO shall be operated and maintained as follows.

(A) Fugitive emissions from all grain receiving pits, where a pit is used, shall be minimized through the use of "choke feeding" or through an equivalent method of control. If choke feeding is used, operation of conveyors associated with receiving shall not commence until the receiving pits are full.

(B) As necessary, emissions from all in-plant roads, truck loading and unloading areas, parking areas, and other traffic areas shall be controlled with one or more of the following methods to minimize nuisance conditions and maintain compliance with all applicable commission requirements:

(i) sprinkled with water;

(ii) treated with effective dust suppressant(s); or

(iii) paved with a cohesive hard surface and cleaned.

(C) All non-vehicular external conveyors or other external conveying systems associated with the feedmill shall be enclosed.

(D) On-site feed milling operations with processing equipment using a pneumatic conveying system (which may include, but are not limited to, pellet mill/pellet cooler systems, flaker systems, grinders, and roller-mills) shall vent the exhaust air through a properly-sized high efficiency cyclone collector or an equivalent control device before releasing the exhaust air to the atmosphere. This requirement does not include cyclones used as product separators.

(E) If the executive director determines that the implementation and employment of these practices is not effective in controlling dust, the operator shall implement any necessary additional abatement measures to control and minimize this contaminant within the time period specified by the executive director.

(5) Maintenance and housekeeping. The AFO operator shall comply with the following to help prevent nuisance conditions.

(A) The premises shall be maintained to prevent the occurrence of nuisance conditions from odors and dust. Spillage of any raw products or waste products causing a nuisance condition shall be picked up and properly disposed of daily.

(B) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding.

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

(a) Discharge notification. If for any reason there is a discharge to water in the state, the concentrated animal feeding operation (CAFO) operator shall notify the appropriate regional office orally within 24 hours or upon discovery of the discharge, whichever occurs first. The CAFO operator shall also submit written notice, within 14 working days of the discharge from the retention control structure or any component of the waste handling or land application system to the Office of Compliance and Enforcement, Enforcement Division. In addition, the operator shall document the following information, keep the information on site, and submit the information to the appropriate regional office within 14 working days of becoming aware of such discharge. The notification must include:

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

(2) an estimation of the volume discharged;

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

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

(5) results of analysis as required by subsection (b) of this section.

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

(1) Sample analysis of the discharge must, at a minimum, include the following:

(A) fecal coliform bacteria;

(B) total coliform;

(C) five-day biochemical oxygen demand (BOD_5);

(D) total suspended solids (TSS);

(E) Ammonia Nitrogen (as N);

(F) Nitrate (as N);

(G) total dissolved solids (TDS);

(H) total phosphorus (as P); and

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

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

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

§321.45. Concentrated Animal Feeding Operation (CAFO) Training Requirements.

(a) Employee training. A permit or authorization will establish requirements for training of employees who are responsible for work activities relating to compliance with provisions of this subchapter that address all levels of job responsibility associated with compliance with this subchapter.

(b) Dairy outreach program area operator training. The operator of a dairy concentrated animal feeding operation (CAFO) located in §321.32(17) of this title (relating to Definitions) shall attend and complete training developed by the executive director and the Texas Cooperative Extension as follows:

(1) an eight-hour course or its equivalent on animal waste management within 12 months of receiving initial authorization under this subchapter; and

(2) at least eight additional hours of continuing education on animal waste management or its equivalent for each two-year period after completing the requirements of paragraph (1) of this subsection.

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

(a) Pollution prevention plan (PPP).

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

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

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

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

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

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

(C) before operation of any new control facilities;

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

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

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

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

(6) The PPP shall provide a description of potential pollutant sources. Potential pollutant sources include any activity or material that may reasonably be expected to contain pollutants at the facility, including the CAFO, the associated control facilities, and LMUs. An evaluation of potential pollutant sources shall identify the types of potential pollutant sources, provide a description of the potential pollutant sources, and indicate all measures that will be used to prevent contamination from the potential pollutant sources.

(7) A permit or authorization will establish requirements for the development and retention by the operator of:

(A) a site map, including a depiction of buffer zones and setbacks;

(B) soil, crop, and crop nutrient information;

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

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

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

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

(2) the RCS management plan, if applicable;

(3) procedures for spill prevention and recovery;

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

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

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

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

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

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

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

(c) Site evaluation.

(1) Once every five years, any CAFO operator who uses an RCS shall have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner documentation, and complete and certify a report of their findings.

(2) A complete inspection of the facility, including the CAFO, the associated control facilities, and LMUs shall be completed by the CAFO operator and a report documenting the findings of the inspection made at least once per year. The inspection shall verify that:

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

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

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

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

(d) Recordkeeping requirements. The CAFO operator shall keep records on site for a minimum of five years from the date the record was created and shall submit them within five days of a written request by the executive director. Any CAFO operator that does not use an RCS is not subject to paragraphs (3) - (5) and (7) of this subsection. The following records must be included unless otherwise specified:

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

(2) a log of wastewater, manure, litter, and sludge removed from the CAFO that shows the dates, times, and recipient;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(11) copies of all notifications to the executive director, including any made to a regional office, as required by this subchapter, a permit, or authorization.

(e) Reporting requirements.

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

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

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

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

(b) Applicability.

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

(2) The owner or operator of an AFO not defined or designated as a CAFO who qualifies for, obtains, and is operating under a certified water quality management plan from the Texas

State Soil and Water Conservation Board (TSSWCB) and subsection (c)(1) - (3) of this section are considered to meet all technical requirements of this section.

(3) The owner of an AFO not defined or designated as a CAFO who does not use a control facility to manage manure, litter, or wastewater generated on site shall adhere to the following general requirements.

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

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

(c) General requirements.

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

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

(3) The AFO may discharge from the production area, if the discharge is the result of a chronic or catastrophic rainfall event, or catastrophic condition which exceeds the design capacity of a retention control structure (RCS) that has been properly designed, constructed, operated, and maintained. RCSs shall be designed in accordance with §321.38 of this title (relating to Control Facility Design Requirements Applicable to Concentrated Animal Feeding Operations (CAFOs)).

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

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

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

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

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

(B) TSSWCB regulations; and/or

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

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

(d) Control facilities.

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

(2) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained to ensure good drainage by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding and to minimize the entrance of uncontaminated storm water to the RCS

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

(4) Existing facilities which have been properly maintained without any modifications and show no signs of structural breakage or leakage will be considered to be properly constructed. Structures built in accordance with site-specific NRCS plans and specifications will be considered to be in compliance with the design and capacity requirements of this subchapter if the site-specific conditions are the same as those used by the NRCS to develop the plan (numbers of animals, runoff area, wastes generated, etc.).

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

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

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

(8) RCSs shall be equipped with either irrigation, evaporation, or liquid removal systems capable of dewatering the RCSs.

(9) Sludge shall be removed from RCSs in accordance with the design schedule for cleanout to prevent the accumulation of sludge from exceeding the designed sludge volume of the structure.

(e) Operation and maintenance.

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

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

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

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

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

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

(7) The AFO operator shall ensure that liners are protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner. Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas professional engineer within 30 days of the damage.

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

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

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

(f) Land application.

(1) The runoff of manure, litter, or wastewater to water in the state as the result of the application of manure, litter, or wastewater from an AFO is authorized provided the land application activity is implemented in accordance with a plan for nutrient management detailed in this section.

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

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

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

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

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

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

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

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

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

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

(5) Application rates shall not exceed the crop requirement of the crop or planned crop planting with any land application of wastewater and/or manure. Land application rates of manure and wastewater shall be based on the available nutrient content.

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

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

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

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

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

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

(12) Vegetative buffer strips shall be no less than 100 feet of vegetation to be maintained between waste or wastewater application areas and surface water and watercourses. The AFO operator shall maintain the buffer strips in accordance with NRCS guidelines.

(13) Manure/litter storage capacity requirements based upon manure/litter and waste production, land availability, and the USDA - NRCS FOTG for Texas shall be provided. Permanent storage structures for AFO operations must meet NRCS design specifications. All litter/manure removed from operation and not temporarily stored must be located within the drainage of the RCS, in a well-drained area with no ponding of water, and where the top and sides of stockpiles are adequately sloped to ensure proper drainage to prevent polluted rainfall runoff.

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

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

(16) Nighttime application of liquid or solid waste shall be allowed only in areas with no occupied residence(s) within 1/4 mile from the outer boundary of the LMU receiving manure/litter or wastewater application. In areas with an occupied residence within 1/4 mile from the outer boundary of the LMU, application shall only be allowed from one hour after sunrise until one hour before sunset, unless the current occupants of such residences have, in writing, agreed to such nighttime applications.

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

(18) Composting on site at an AFO shall be performed in accordance with Chapter 332 of this title (relating to Composting). AFOs may compost waste generated on site, including manure,

litter, bedding, feed, and dead animals. In accordance with Chapter 332 of this title, an AFO operator may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas shall be located within the drainage of the RCS. The runoff volume from compost areas shall be accounted for in the design of the RCS.

(19) Maintenance of animals.

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

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

(g) Soil sampling and testing.

(1) The AFO operator is not required to collect soil samples from LMUs where manure, litter, or wastewater has not been applied during the preceding year. The AFO operator must comply with paragraph (2) of this subsection before resuming land application to such LMUs the unused LMU.

(2) Prior to commencing wastewater irrigation or manure, litter application on land owned, operated, controlled, rented, or leased by the AFO operator, and annually thereafter, the operator shall collect and analyze representative soil samples from each of the LMUs according to the following procedures.

(3) Sampling procedures shall employ accepted techniques of soil science for obtaining representative samples and analytical results. Samples should be collected using approved procedures described in the executive director's guidance document entitled "Soil Sampling for Nutrient Utilization Plans" as updated.

(4) Samples should be collected within the same 45-day time frame each year.

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

(6) Composite samples shall be comprised of ten to 15 randomly sampled cores obtained from each of the following soil depth zones:

(A) Zone 1: zero to six inches for LMUs where the manure or litter is incorporated directly into the soil or zero to two inches for LMUs where the waste is not incorporated into the soil; if a zero to two-inch sample is required under this subsection, then an additional sample

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

(B) Zone 2: six to 24 inches.

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

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

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

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

(C) potassium (extractable, ppm);

(D) sodium (extractable, ppm);

(E) magnesium (extractable, ppm);

(F) calcium (extractable, ppm);

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

(H) soil water pH.

(h) Nutrient utilization plans (NUPs).

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

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

(B) a level greater than 350 ppm of extractable phosphorus in Zone 1 (zero to six-inch depth) for an LMU where the average annual rainfall is 25 inches or less, erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, and the closest edge of the field is more than one mile from a named stream; or

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

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

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

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

(i) Recordkeeping requirements.

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

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

(B) a schedule for liquid waste removal;

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

(D) a log of all measurable rainfall events;

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

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

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

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

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

(J) any written agreement with a landowner which documents the allowance of nighttime application of manure, litter, or wastewater.

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

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

(B) the location of the specific application site and the number of acres utilized during each application event;

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

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

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

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

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

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

(k) Groundwater monitoring. In the event that one or more samples of groundwater are required, the operator must sample each well annually for nitrate as nitrogen, chloride, and total dissolved solids using the methods outlined in the pollution prevention plan, and compare the analytical results to the baseline data. Data from any required monitoring wells must be submitted to the executive director and kept on site for five years. The first year's sampling shall be considered the

baseline data and must be retained on site for the life of the facility, unless otherwise provided by the executive director. If a 10% deviation in concentration of any of the sampled constituents is found, the operator must notify the executive director within 30 days of receiving the analytical results.

(l) Inspections. The AFO operator must conduct the following inspections to assure the facility maintains its efficiency.

(1) Preventative maintenance program. The operator shall periodically inspect designated equipment at the control facility and LMUs. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system or the creation of a nuisance. Inspections shall include visual inspections and equipment testing to uncover conditions that could cause breakdowns or failures resulting in discharge of pollutants to waters in the state or the creation of a nuisance condition.

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

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

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

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

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

SUBCHAPTER B: CONCENTRATED ANIMAL FEEDING OPERATIONS

§321.48, §321.49

STATUTORY AUTHORITY

The repeals are adopted under TWC, §5.102, which provides the commission with the general authority necessary to carry out its duties and general powers under its jurisdiction; TWC, §5.103, which provides the commission with the general authority to adopt rules; TWC, §5.105, which is the commission's authority to set policy by rule; and TWC, §5.013, which states the commission's authority over various statutory programs.

These repeals are also adopted under TWC, §26.011, regarding the commission's authority over water quality in the state; and TWC, §26.028, which provides the commission's authority to approve certain applications for wastewater discharge; and TWC, §26.0286, which requires the commission to process an application for authorization to construct or operate a CAFO located in the protection zone of a sole-source surface drinking water supply as an application for an individual permit.

These repeals are also adopted under TWC, §26.040, under which the commission has authority to amend rules adopted under §26.040 prior to its amendment by House Bill 1542 in 1997, in order to continue to regulate small AFOs under a permit by rule. In addition, §26.040 authorizes the commission to approve a general permit to authorize the discharge of waste into or adjacent to water in the state by a category of dischargers that engage in the same or substantially similar types of operations.

These repeals are also adopted under TWC, §26.041, which allows the commission to use any means provided by Chapter 26 to prevent a discharge of waste that is injurious to public health; and §26.048, which allows the commission to propose rules to prohibit the discharge into a playa or use of it as a wastewater retention facility. In addition, these amendments are adopted under TWC, §26.121, which prohibits the discharge of waste into or adjacent to any water in the state except as authorized with a commission permit or other authorization.

These repeals are also adopted under TWC, Chapter 26, Subchapter L, which requires the commission to authorize the construction or operation of a new or expanded dairy CAFO located in a major sole-source impairment zone through an individual permit, which must contain specific requirements for the management and beneficial use of animal waste, and sets forth waste application field soil sampling and testing requirements that apply to all dairy CAFOs within a major sole-source impairment zone.

These repeals are also adopted under Texas Government Code, §2001.006, which provides state agencies the authority to adopt rules or take other administrative action that the agency deems necessary to implement legislation.

Finally, these repeals are also adopted under Texas Health and Safety Code, §382.011, which provides the commission the authority to control the quality of the state's air; §382.017, which authorizes the commission to propose rules consistent with the policy and purposes of the Texas Clean Air Act and to propose rules that differentiate among particular conditions, particular sources, and particular areas of the state; §382.012, which authorizes the commission to prepare and develop a comprehensive plan for

proper control of the state's air; and §382.051, which provides the commission the authority to issue air standard permits. These repeals are also adopted under Texas Health and Safety Code, §382.05195, which authorizes the commission to issue and amend air standard permits for new or existing similar facilities, and to propose rules to implement and administer the issuance, amendment, renewal, and revocation of authorizations to use standard permits.

§321.48. Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs).

§321.49. Dairy Waste Application Field Soil Sampling and Testing.