

The Texas Natural Resource Conservation Commission (TNRCC or commission) adopts amendments to §321.32, Definitions; §321.33, Applicability; §321.34, Procedures for Making Application for an Individual Permit; §321.35, Procedures for Making Application for Registration; §321.39, Pollution Prevention Plans; and new §321.48, Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs); and §321.49, Dairy Waste Application Field Soil Sampling and Testing. Sections 321.32 - 321.35, 321.39, 321.48, and 321.49 are adopted *with changes* to the proposed text as published in the September 28, 2001 issue of the *Texas Register* (26 TexReg 7482).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

The primary purpose of the adopted amendments and new sections is to implement the following legislation from the 77th Legislature, 2001: House Bill (HB) 2912, an act relating to the continuation and functions of the Texas Natural Resource Conservation Commission; providing penalties, Article 12, Regulation of Certain Animal Feeding Operations; Senate Bill (SB) 2, an act relating to the development and management of the water resources of the state, including the ratification of the creation of certain groundwater conservation districts; providing penalties, Article 8, Concentrated Animal Feeding Operations; and SB 1339, an act relating to requiring owners or operators of poultry facilities to implement and maintain certified water quality management plans.

House Bill 2912, Article 12, added Texas Water Code (TWC), Chapter 26, Subchapter L, relating to Protection of Certain Watersheds, which regulates certain CAFO wastes and sets forth waste application field soil sampling and testing requirements. Senate Bill 2, Article 8, amended TWC, §26.0286, relating to Procedures Applicable to Permits for Certain Concentrated Animal Feeding

Operations, which establishes the requirement that the TNRCC process an application for authorization to construct or operate any CAFO located in the protection zone of a sole-source surface drinking water supply as an application for an individual permit. Senate Bill 1339, §3, basically exempts certain poultry operations from the commission's CAFO rules.

The adoption also includes grammatical revisions to conform with *Texas Register* style requirements and other administrative revisions to all sections.

SECTION BY SECTION DISCUSSION

Adopted §321.32 is amended to define, in a manner consistent with HB 2912 and SB 2, the terms “historical waste application field” under paragraph (16); “major sole-source impairment zone” under paragraph (21); “new CAFO” under paragraph (23); “protection zone” under paragraph (33); and “sole-source surface drinking water supply” under paragraph (37), which has been renumbered from the proposed paragraph (38). In addition, the acronym “NRCS” has been added under paragraph (22) after Natural Resources Conservation Service. “25-year, 24-hour rainfall event/25-year event” has been renumbered as paragraph (38), to adopt the definitions in alphabetical order.

Adopted §321.33 is amended to add the phrase “including all poultry operations as described in TWC, §26.302” in subsection (d) in order to implement requirements of under SB 1339. This implements the aforementioned statute by conditionally excluding certain poultry operations from the CAFO requirements of this subchapter. Section 321.33 is also amended to add new subsections relating to applicability of certain requirements under Chapter 321, Subchapter B. Under §321.33(q), the

applicability statement states that §321.48, Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs) and §321.49, Dairy Waste Application Field Soil Sampling and Testing, apply 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, as defined in §321.32. Under §321.33(r), CAFOs located or proposed to be located within the protection zone of a sole-source surface drinking water supply must obtain authorization to construct or operate through the individual permit process and the individual permit application must be filed by the owner or operator for any new permit or for any major amendment or renewal of an existing permit. Under §321.33(s), the commission is required to process an application for a CAFO located or proposed to be located within the protection zone of a sole-source surface drinking water supply as an individual permit under TWC, §26.028, relating to Action on Application, subject to the procedures provided by TWC, Chapter 5, Subchapter M, relating to Environmental Permitting Procedures. The individual permit requirement is triggered if, on the date the executive director (ED) determines that the application is administratively complete, any part of any pen, lot, pond, or other type of control or retention facility or structure of the CAFO is located in the protection zone of a sole-source surface drinking water supply.

Adopted §321.34(a) contains only grammatical revisions to conform with *Texas Register* style requirements and other administrative revisions.

Adopted §321.35(c) is amended to add an exception to the sentence which allows certain facilities to apply for a state-only registration, or transfer from an individual permit to a registration. Because the

CAFOs regulated under §321.48 must obtain an individual permit, the phrase “Except as provided in §321.33(r) of this title (relating to Applicability) and §321.48 of this title (relating to Regulation of Certain Dairy Concentrated Animal Feeding Operations,” is added at the beginning of the aforementioned sentence. Section 321.35(c) is also amended to add paragraphs (14) and (15), which require applications for CAFOs confining cattle that have been or may be used for dairy purposes, or otherwise associated with a dairy, to include documentation showing whether or not they are located in a major sole-source impairment zone or a protection zone of a sole-source surface drinking water supply.

Adopted §321.39(f)(28)(G) is amended to add the opening phrase “Except as provided under §321.49 of this title (relating to Dairy Waste Application Field Soil Sampling and Testing);” add the phrase “an employee of the” prior to “NRCS”; add the phrase “a nutrient management specialist certified by NRCS”; change “Texas Agricultural Extension Service” to “Texas Cooperative Extension”; and insert the phrase “after approval by the executive director based on a determination by the executive director that another person or entity identified in this subparagraph cannot develop the plan in a timely manner” at the end of the first sentence. The last sentence in this subparagraph is amended to read as follows: “The CAFO operator shall ensure that the nutrient utilization plan, at a minimum, evaluates and addresses the following factors to assure that the beneficial use of manure is conducted in a manner that prevents phosphorus impacts to water quality:”.

Adopted new §321.48 addresses the regulation of new CAFOs and CAFOs increasing the number of animals confined under an existing operation that are feeding operations 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. Because adopted subsection (a) clearly limits the applicability of this section to dairy CAFOs in a major sole-source impairment zone, all superfluous occurrences of the word “dairy” have been removed from the proposed text, under subsections (a) and (b). Adopted subsection (a) also has been reformatted for clarity. Subsection (b) requires an owner or operator of such a CAFO to submit a permit application and obtain a new or amended individual permit prior to constructing or operating the new CAFO or increasing the number of confined animals. Subsection (c) states that nothing in this section limits the commission's authority to include in an individual or general permit under this subchapter provisions necessary to protect a water resource in this state. Subsection (d) sets out permit requirements, by stating that any permit to which this section applies must, at a minimum, provide for management and disposal of waste in accordance with Chapter 321, Subchapter B. The permit must also require that 100% of the collectible manure produced by the additional animals in confinement at an expanded operation or all of the animals in confinement at a new operation must be: beneficially used outside of the watershed; disposed of in landfills outside of the watershed, subject to commission rules relating to industrial solid waste; delivered to a composting facility approved by the ED; put to another beneficial use approved by the ED; or applied in certain alternative ways as set out in the rule. If applied, the manure application must meet any combination of three sets of requirements or options. The first option is that if it is applied to a waste application field that is not a historical waste application field owned or controlled by the owner of the CAFO, then it must be applied in accordance with the requirements of §321.39, relating to Pollution Prevention Plans, and §321.40, relating to Best Management Practices. The other options involve application to a historical waste application field that is owned or operated by the owner or operator of the CAFO, as

follows: Option 2.) if the soil has 200 parts per million (ppm) or less extractable phosphorus in the soil, then it must be applied in accordance with the aforementioned pollution prevention plan and best management practice requirements; and Option 3.) if the soil has more than 200 ppm extractable phosphorus, it must be applied in accordance with a detailed nutrient utilization plan (NUP) approved by the ED which, at a minimum, meets the requirements of §321.39(f)(28)(G). Under adopted §321.48(d)(2)(E)(i) and (ii), the redundant and unnecessary phrase “pollution prevention plan” has been deleted from the proposed text. Under adopted §321.48(d)(E)(iii), the word “then” has been corrected to “than.”

Under adopted §321.48(e), the detailed NUP required under §321.48(d) must be developed by: an employee of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS); a nutrient management specialist certified by the United States Department of Agriculture's NRCS; the Texas State Soil and Water Conservation Board; the Texas Cooperative Extension; an agronomist or soil scientist on the full-time staff of an accredited university located in this state; or a professional agronomist or soil scientist certified by the American Society of Agronomy after approval by the ED based on a determination by the ED that another person or entity listed as the first five options cannot develop the plan in a timely manner.

Adopted new §321.49 relates to dairy waste application field soil sampling and testing, and applies to CAFOs that are feeding operations 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, as defined in §321.32. Because adopted subsection (a) clearly limits the applicability

of this section to dairy CAFOs in a major sole-source impairment zone, all superfluous occurrences of the word “dairy” have been removed from the proposed text, under subsections (a) - (c). Under adopted subsection (b), for new CAFOs or CAFOs increasing the number of animals, the waste application field soil sampling and testing requirements must be implemented concurrently with the next required annual soil sampling date established in the pollution prevention plan. Subsection (c) requires existing CAFOs not increasing the number of animals to implement these requirements concurrently with the next required annual soil sampling date established in the pollution prevention plan, beginning six months after the effective date of this adoption. Adopted §321.49(d) requires the CAFO operator to contract with a person described in §321.48(e), who is approved by the ED, to collect one or more representative composite soil samples from each waste application field, including each historical waste application field, to ensure compliance with subsection (f) of this section, and requires the CAFO operator to have sampling under subsection (d)(1) of this section performed in accordance with the requirements of §321.39 not less often than once every 12 months, in accordance with the procedures in §321.39(f)(28)(A) - (D). Under adopted §321.49(d)(2), the redundant and unnecessary phrase “pollution prevention plan” has been deleted from the proposed text. Under adopted subsection (e), the CAFO operator shall ensure that each sample collected under subsection (d) is tested in accordance with the applicable requirements of §321.39(f)(28)(A) - (F) and be tested for any other nutrient designated by the ED. Under subsection (f), the CAFO operator shall ensure that the analytical results from the testing performed under subsection (e) of this section are submitted to the ED and that a copy is submitted to the local TNRCC regional office and the operator of the CAFO within 60 days of the sampling. Under subsection (g), if the samples tested under subsection (e) show a phosphorus level in the soil of more than 500 ppm, the operator must file with the ED a new or amended NUP with a

phosphorus reduction component that is certified as acceptable by a person described in §321.48(e).

Under subsection (h), if the samples tested under subsection (e) show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm, the operator must file with the ED a certified new or amended NUP with a phosphorus reduction component, or show that the level is supported by a certified NUP. Finally, under subsection (i), if the owner or operator of a waste application field is required by this section to have a NUP with a phosphorus reduction component, 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, then the owner or operator is subject to enforcement action at the discretion of the ED. Adopted subsection (i) is changed from proposal by replacing “subsection (g) or (h)” with “this section,” in order to more closely track the following statutory language of TWC, §26.504(e): “The owner or operator of a waste application field required by this section to have....” The rule also requires the ED, in determining whether to take an enforcement action, to 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.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the rulemaking in light of the regulatory analysis requirements of the Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to §2001.0225 because it does not meet the definition of a “major environmental rule” as defined in the statute. The adoption does not meet the definition of “major environmental rule” for several reasons. First, these rules are primarily procedural in nature, dealing largely with application requirements for CAFOs, and

requiring certain CAFOs to obtain individual permits. It should be noted that the commission's rules currently allow the ED to require a CAFO to apply for an individual permit if the operation is located near surface water resources. Therefore, the requirement to apply for an individual permit is not a new requirement, and thus the adopted rules do not adversely affect in a material way the economy, a sector of the economy, productivity, competition, or jobs of the state or a sector of the state. Finally, because the adopted rules deal primarily with application requirements, they are procedural in nature and would not adversely affect the environment, or the public health and safety of the state or a sector of the state. One aspect of the rulemaking which is not a procedural requirement relates to the soil sampling and testing requirements. These requirements do not represent a significant burden so as to adversely affect in a material way the economy, a sector of the economy, productivity, competition, or jobs of the state or a sector of the state because CAFOs are already required to perform annual soil sampling of land application fields under existing rules.

In addition, 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. This adoption does not exceed a standard set by federal law because there are no such corresponding federal standards. This adoption does not exceed an express requirement of state law because it is specifically required by TWC, Chapter 26, Subchapter L; by TWC, §26.0286; and by SB 1339. This adoption does not exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program because the September 14, 1998 "Memorandum of Understanding between the United States Environmental Protection Agency and the TNRCC" which

authorizes the commission to implement the National Pollutant Discharge Elimination System (NPDES) permitting program in Texas, requires CAFOs, as defined in the federal Clean Water Act, to obtain Texas Pollutant Discharge Elimination System authorization but does not specify whether the authorization must be through an individual permit, registration under a permit-by-rule, or through a general permit. This rulemaking does not adopt a rule solely under the general powers of the agency, but rather under specific state law (i.e., TWC, §26.0286, which requires the commission to use certain procedures for processing applications for certain CAFOs, and TWC, Chapter 26, Subchapter L).

TAKINGS IMPACT ASSESSMENT

The commission prepared a takings impact assessment for these adopted rules in accordance with Texas Government Code, §2007.043. The purposes of the rules are to implement the requirements of TWC, Chapter 26, Subchapter L, which regulates certain CAFO wastes and sets forth waste application field soil sampling and testing requirements; TWC, §26.0286, which establishes the requirement for an individual permit for any CAFO located in the protection zone of a sole-source surface drinking water supply; and SB 1339, which basically exempts certain poultry operations from the commission's CAFO rules. The rules substantially advance this stated purpose by requiring certain CAFOs in a major sole-source impairment zone to obtain an individual permit, to manage or beneficially use waste in a specified manner, and to sample and test the soil on their waste application fields; by defining "protection zone" and "sole-source surface drinking water supply" and by requiring an individual permit for any CAFO located in the protection zone of a sole-source surface drinking water supply; and by exempting certain poultry operations from the commission's CAFO rules.

Promulgation and enforcement of these rules will not affect private real property which is the subject of the rules primarily because the rules are primarily procedural in nature. For example, a CAFO facility located within the protection zone would still be able to operate, but only after obtaining an individual permit rather than another form of authorization such as a registration. These rules are not anticipated to affect private real property because they do not prohibit or restrict a CAFO from operating within a protection zone. They simply require the facility to follow different procedures for obtaining authorization to construct or operate. Furthermore, CAFOs located near surface water resources are already required to prevent the likelihood of inadvertent discharges and to ensure that permitted discharges do not degrade water quality. One aspect of the rules which is not procedural in nature relates to the soil sampling and testing portion, which does not represent a significant burden because CAFOs are already required to perform annual soil sampling of land application fields under existing rules. Therefore, these rules do not constitute a takings under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed this rulemaking for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with regulations of the Coastal Coordination Council and determined that the rulemaking is consistent with the applicable CMP goals and policies. The following is a summary of that determination. CMP goals applicable to the adopted rules include the protection, restoration, and enhancement of the diversity, quality, quantity, functions, and values of coastal natural resource areas (CNRA) 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 the following: 1.) discharges shall comply with water-quality-based effluent

limits; 2.) 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 3.) to the greatest extent practicable, new wastewater outfalls shall be located where they will not adversely affect critical areas. Promulgation and enforcement of these rules will not violate (exceed) any standards identified in the applicable CMP goals and policies because any new proposed CAFO located within one mile of a CNRA will be required to pursue an individual permit which will allow the commission to consider the effects of such a facility on the CNRA; establish effluent limits, if necessary, on any discharges from the proposed facility to maintain applicable water quality standards; and allow opportunity for notice, public comment, and public hearing.

HEARINGS AND COMMENTERS

Public hearings on this proposal were held in Austin on October 23, 2001; Waco on October 25, 2001; and Stephenville on November 5, 2001. The public comment period was scheduled to close on November 12, 2001; however, the United States Postal Service celebrated the Veterans Day holiday on November 12, 2001, therefore the comment period was extended until 5:00 p.m. on November 13, 2001. Written comments were submitted by: State of Texas House Representative Kip Averitt (Representative Averitt); Dairy Farmers of America, Inc., Southwest Area Council (Dairy Farmers of America); Sierra Club, Lone Star Chapter (Sierra Club); Potts & Reilly, L.L.P., on behalf of the Texas Association of Dairymen (TAD); Texas Cattle Feeders Association (TCFA); Texas Department of Transportation (TxDOT); Texas Farm Bureau; Texas Poultry Federation; Texas Sheep & Goat Raisers Association (TSGRA); and City of Waco. Oral comments were provided during the hearings by Ken

Horton, on behalf of the Texas Pork Producers Association; Wiley Stem, on behalf of the City of Waco; Jane Mashek, on behalf of State of Texas House Representative Jim Dunnam; Bob Wallace, on behalf of the Wallace Group; James Terrell, on behalf of TAD; and four individuals.

RESPONSE TO COMMENTS

General

TAD expressed its belief that HB 2912, Article 12, was intended to strike a balance between the dairy industry in the Bosque River watershed and downstream interests in water quality. TAD also expressed its belief that the commission proposal for the most part appears to have respected the delicate compromise that was negotiated during the legislative process between the City of Waco, the commission, and the dairies. TAD stated that it is mindful that there are those who are urging the commission to exceed its statutory authorization, and urged the commission to continue to respect the aforementioned compromise.

The commission responds that it adopts these rules in order to comply with the legislative directives, as previously explained in this preamble, without exceeding or falling short of its statutory authorization.

Section 321.32 - Definitions

TCFA and TSGRA commented that the definition of “historical waste application field” under proposed §321.32(16) should be modified by adding the word “dairy,” so that the definition would read as follows: “An area of land located in a major sole-source impairment zone, as defined in this section,

that at any time since January 1, 1995, has been owned or controlled by an operator of a dairy concentrated animal feeding operation (CAFO) on which agricultural waste from a CAFO has been applied.” The commenters stated that the concept of a historical waste application field applies only to dairies in the Bosque River watershed.

The commission has made no change to the proposed text in response to these comments. First, the proposed definition is worded exactly as it is found under TWC, §26.501. Therefore, if the commenters suggestion were to be adopted, the commission would be restricting the definition.

The commission believes that the commenters concerns are adequately addressed by the applicability statements under adopted §321.33(q), which states that §321.48 and §321.49 apply 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, as defined in §321.32.

The City of Waco commented that it is implicit that the purpose of the definition of “historical waste application field” is to identify application fields in use at any time since January 1995, and that the term “controlled” should include any application fields that are owned or operated by persons other than the owner of the CAFO(s) generating the waste. The commenter requested a clarification that the definition should apply to any waste application field within the major sole-source impairment zone, including those that may be under contract or other arrangement to a CAFO owner to receive and dispose of waste (i.e., third-party operations).

The commission has made no change to the proposed text in response to this comment, and believes that the definition of “historical waste application field” accurately reflects the statutory definition. The statutory definition requires that, to be a historical waste application field, it must have been at any time since January 1, 1995, owned or controlled by an operator of a CAFO and upon which agricultural waste from a CAFO has been applied. Third-party fields which have not, since January 1, 1995, been owned or controlled by an operator of a CAFO, cannot meet the definition of “historical waste application field.” If a third-party field is under contract to a CAFO that gives the CAFO operator control of the field, then it may qualify as a historical waste application field, subject to a case-by-case determination by the ED.

The Sierra Club expressed concern that the regulation of certain dairies in major sole-source impairment zones pertains only to those in the Bosque River watershed, and posed the question of whether the Leon River watershed is considered to be a “major sole-source impairment zone.” The commenter stated the opinion that the rules regarding provisions for waste management, soil testing, NUPs, and individual permits should apply to both the Bosque and Leon River watersheds.

The commission has made no changes to the proposed text in response to this comment. Under HB 2912, §12.02 and under proposed §321.32(21), “major sole source impairment zone” is defined in such a way as to include only the Bosque River watershed.

The City of Waco commented that under §321.32(33), the term “normal pool elevation” means the top of the conservation or water supply pool of the reservoir. The Texas Pork Producers Association requested clarification of the term “normal pool elevation.”

It is the intent of the commission to establish a standard elevation of sole-source reservoirs for permitting purposes. The commission notes that “normal pool elevation” values are readily available on standard United States Geological Survey 7 1/2-minute series topographic maps, and means “the elevation of the inlet or control point of the principal spillway.”

The City of Waco commented that under §321.32(33), the protection zone should include areas where any stream that contributes to flows to a sole-source surface drinking water supply, including intermittent streams.

The commission has made no changes to the proposed text in response to this comment, and believes that the definition of “protection zone” accurately reflects statutory requirements. The commission notes that intermittent streams are not a consideration in determining the protection zone.

The City of Waco asked several questions concerning the definition of “protection zone,” including what areas would be excluded from the definition. The commenter stated that the term “sole-source surface drinking water supply river” needs to be defined. The commenter also stated that protection zone areas should include the entire area contributing runoff to water supply users downstream.

Finally, the commenter asked if the TNRCC could provide a map locating the boundaries of the protection zones within the North Bosque River watershed.

The commission has made no changes to the proposed text in response to these comments and questions, and believes that the definition of “protection zone” accurately reflects statutory requirements. A sole-source surface water drinking water supply river is a river which meets the definition of “sole-source surface drinking water supply.” With regard to any specific maps, the commission expects that for illustrative purposes only, the ED will provide such information as resources and time after adoption of these rules allow.

Dairy Farmers of America, TCFA, and TSGRA commented that under proposed §321.32(38), the definition of “sole-source surface drinking water supply” should be modified to include the phrase “has been designated by commission order as a sole source surface drinking water supply because....” The commenters urged the commission to adopt a rule providing for adoption by order any updates to the sole-source list on a semiannual or quarterly basis, so that applicants will know well in advance whether they should file an application for a registration or an individual permit. The Texas Farm Bureau recommended that the definition contain a reference to an appendix that contains the current list of sole-source surface drinking water supply water bodies, and that the appended list be updated on a regular basis. The Texas Pork Producers Association expressed concern with the designation of sole-source surface drinking water supplies as it relates to when the list is published or how it is published. This commenter expressed concern that the commission needs to have a static list of sole-source surface drinking water supplies, as opposed to something that can change frequently.

The commission has made no changes to the proposed text in response to these comments. The commission believes that the adopted definition fulfills the statutory requirement that “the commission by rule shall designate a surface water body as a sole-source surface drinking water supply if that surface water body is identified as a public water supply in rules adopted by the commission under Section 26.023 and is the sole source of supply of a public water supply system, exclusive of emergency water connections.” The commission expects that the ED will make the list of sole-source surface drinking water supplies available upon request, and that in order to accurately and appropriately reflect the current status of surface drinking water supplies, the ED will update the list frequently. The commission notes that there is no provision in the statutory language to maintain a more static list so that applicants will know well in advance whether they should file an application for a registration or an individual permit.

The Texas Pork Producers Association commented concerning the definition of “sole-source surface drinking water supply” under proposed §321.32(38). The commenter posed an example and asked if 95% of a water supply on a regular basis is brought in from one particular reservoir and 5% is brought in from a well, then at different times throughout the year they shut off the well and draw 100% of the water supply from the reservoir, would that qualify it as a sole-source surface drinking water supply (assuming there were no other connections, exclusive of emergency water connections)?

The commission responds that under the conditions given by the commenter, the reservoir would not qualify as a sole-source surface drinking water supply.

Dairy Farmers of America commented that the rules should be clarified concerning the number of “mature animals” on the CAFO, taking into consideration the size and weight if that animal is being counted as a mature animal. The commenter stated that the issue becomes critical to the CAFO owner or operator when an investigator inventories head of cattle on the CAFO relative to permit limits, and that if an erroneous inventory is recorded due to the inconsistent method of inventorying animals, the owner or operator is unjustly held liable.

The commission has made no changes to the proposed text in response to this comment. The commission’s rules under §321.32(3), (4), and (9) do not expressly exclude animals based on age, but specifically mention “slaughter or feeder cattle” (of any age or gender), “mature dairy cattle (whether milkers or dry cows),” “horses,” “sheep,” “laying hens or broilers,” “slaughter steers,” “heifers,” and other animals. The rules are written in terms of operations at which animals “have been, are, or will be stabled or confined and fed or maintained.” The ED, therefore, would count all those animals confined at a facility to determine compliance with a permit.

The Sierra Club commented that there appears to be no definition of “beneficial use” of waste as prescribed in proposed §321.48(d), and stated that this potentially creates a loophole for certain waste management practices. TAD asked for a definition of “beneficial use.”

The commission has made no changes to the proposed text in response to this comment, and expects that the ED, on a case-by-case basis, will determine whether a particular use constitutes “beneficial use.”

Section 321.33 - Applicability

The Texas Poultry Federation commented that under §321.33(r), the requirement for any CAFO located within the protection zone of a sole-source drinking water supply to apply for an individual permit is overly burdensome for the CAFO industry and the TNRCC. The commenter stated that the requirement for individual permits should only be used when it is shown that the general permit process, CAFO best management practices, and total maximum daily load implementation plans cannot provide adequate water quality protection.

The commission has made a clarifying change to the proposed text in response to this comment by adding a reference to §321.33(d), so that this conditional exemption is referenced under §321.33(r) in the following manner: “Subject to the requirements of subsection (s) of this section, and except as provided in subsection (d) of this section, the following requirements apply....” The commission notes that certain individual permits are required by the statutory language, and believes that the adopted rule accurately reflects these statutory requirements.

TAD commented that under proposed §321.33(r)(2)(B), the owner or operator shall file an individual permit application for any renewal in accordance with the applicable requirements under §321.34, and questioned the commission’s authority to require an individual permit for renewals of existing and non-expanding CAFOs.

The commission has made no changes to the proposed text in response to this comment. Adopted §321.33(r)(2)(B) reflects the statutory language from SB 2, §8.01, which states, “The commission

shall process an application for authorization to construct or operate a concentrated animal feeding operation as a specific permit under Section 26.028 subject to the procedures provided by Subchapter M, Chapter 5, 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 concentrated animal feeding operation is located or proposed to be located within the protection zone of a sole-source surface drinking water supply. For the purposes of this subsection, a land application area is not considered a control or retention facility.” The commission notes that an application for renewal of a CAFO authorization is **“an application for authorization to construct or operate a concentrated animal feeding operation.”**

Dairy Farmers of America, TCFA, and TSGRA commented that under proposed §321.33(s), the trigger date for determining whether an application should be processed as an individual permit should be changed from the date the application is determined by the ED to be administratively complete to the date the application is filed.

The commission has made no change to the proposed text in response to these comments. Under TWC, §26.0286(b), the appropriate date is “the date the commission determines that the application is administratively complete.”

Section 321.39 - Pollution Prevention Plans

The Wallace Group commented that most of the persons listed under §321.39(f)(28)(G) to develop the NUPs are persons or entities that have no liability to the public, to third parties, or even to their client. The commenter requested that some responsibility and accountability be provided.

The commission has made changes to the proposed text in response to this comment. Under adopted §321.39(f)(28)(G), the last sentence is revised by adding “CAFO operator shall ensure that the” and revising the sentence grammatically to read as follows: “The CAFO operator shall ensure that the nutrient utilization plan, at a minimum, evaluates and addresses the following factors to assure that the beneficial use of manure is conducted in a manner that prevents phosphorus impacts to water quality:”. In a similar vein, §321.49 has been revised to incorporate enforceability concerns, because the persons responsible for collecting the soil samples under §321.49 are the same persons responsible for development of the NUPs. Under adopted §321.49(e), the phrase “The CAFO operator shall ensure that” is added at the beginning of the sentence. Adopted §321.49(f) is changed to read as follows: “The person who performs the testing under subsection (e) of this section shall submit the analytical results to the executive director and shall submit a copy to the appropriate commission regional office and the operator of the CAFO within 60 days of the sampling.”

The City of Waco commented that there is a conflict between §321.39(f)(28)(G) and §321.49(h)(2). The commenter stated that in effect, §321.49(g) and (h) provides a 500 ppm limit on soil phosphorus, and subsection (h) allows a NUP to “support” a phosphorus level greater than 200 ppm. The

commenter stated that the trigger for causing submittal to the ED of a new or amended NUP with a phosphorus reduction component should be 200 ppm to be consistent with §321.39(f)(28)(G).

The commission sees no conflict between §321.39(f)(28)(G) and §321.49(h)(2). Both require a NUP for application of waste on areas of land with levels of phosphorus greater than 200 ppm. Nevertheless, the commission has adopted a clarifying exception statement at the beginning of the first sentence in §321.39(f)(28)(G) in response to this comment, as follows: “Except as provided under §321.49 of this title (relating to Dairy Waste Application Field Soil Sampling and Testing),” in order to provide a cross-reference to additional rules applicable to certain operations.

Section 321.48 - Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs)

The City of Waco commented concerning proposed §321.48(d)(2)(D)(i) - (iii), and noted that the phrase “owned or controlled by the owner of the CAFO” is used in clause (i), while the phrase “owned or operated by the owner or operator of the CAFO” is used in clauses (ii) and (iii), in referring to waste application fields. The commenter asked why there is such a distinction made here, and also asked if the requirements of clauses (ii) and (iii) apply to application fields that are controlled by the CAFO owner or operator.

The commission responds that the distinction is made because it is the statutory language. The commission also responds that the requirements of clauses (ii) and (iii) apply to application fields that are controlled by the owner or operator of the CAFO, if they are also owned or operated by the owner or operator of the CAFO.

TAD requested that the commission clarify that all the options for removal of manure set forth by the legislature are included in the rule. The commenter noted that the legislature set forth a menu of options for producers to manage their manure in various ways, all of which are protective of the environment. The commenter noted that the proposed rule did not include the statutory option of disposal outside the watershed. TAD also commented that the proposed language “beneficially used outside of the watershed” does not appear in the statute, but rather the statute allows for the manure to be “disposed of or used outside of the watershed.”

The commission has made changes to the proposed text in response to this comment. First, under adopted §321.48(d)(1), the proposed phrase “beneficially used” has been replaced by the word “disposal,” in order to reflect the statutory language. Second, a new option has been provided under adopted §321.48(d)(2)(B), which is “disposed in landfills outside of the watershed, subject to the requirements of commission rules relating to industrial solid waste.” The adoption still retains the option of beneficial use outside of the watershed because the commission interprets the word “used” under TWC, §26.503(b)(2)(B) to mean “beneficially used.”

TAD commented that the statute allows for land application on land owned or controlled by the owner of the CAFO if the field is not a historical application field “as directed by the commission,” and noted that the proposal includes the option of application on a nonhistorical application field but only if it meets the requirements concerning pollution prevention plans and best management practices. The commenter requested clarification if it is the commission’s intention to assume jurisdiction over third-party application fields by requiring pollution prevention plans and best management practices on third-

party fields. The commenter questioned that if this is the case, wouldn't this rule force the use of historical fields and prevent expansion of dairies, and use of new farm land that might need a beneficial soil amendment.

The commission has made no changes to the proposed text in response to this comment. The commission notes that under adopted §321.48(d)(2)(E)(i), application is conditionally allowed on a waste application field owned or controlled by the owner of the CAFO, if the field is not a historical waste application field. This adoption reflects the statutory language under TWC, §26.503(b)(2)(C), which states, “applied as directed by the commission to a waste application field owned or controlled by the owner of the concentrated animal feeding operation, if the field is not a historical waste application field.” It would not appear that a third-party field could be owned by the CAFO owner and still be called a third-party field. If a so-called third-party field is controlled by the CAFO owner, then these rules would appear to apply. The commission does not believe that the adopted rule forces the use of historical fields.

TAD requested clarification concerning the requirements for a NUP with regard to application on a historical waste application field, because certain proposal preamble language seemed to indicate that a NUP may be required for all such application. TAD also asked whether the commission intends to require a NUP for nonhistorical application sites.

The commission responds that a NUP is not explicitly required under adopted §321.48(d)(2)(E)(ii) for application on a historical waste application field that is owned or operated by the owner or

operator of the CAFO. However, adopted §321.49(d) requires composite sampling to be conducted at each waste application field, including each historical waste application field, not less often than once every 12 months, and the results must be submitted to the ED showing that the waste application field contains 200 or fewer ppm of extractable phosphorus (reported as P) in the Zone 1 (0 - 6 inch) depth. If the soil samples tested show a phosphorus level greater than 200 ppm of extractable phosphorus (reported as P) in the Zone 1 depth, then the operator shall file a new or amended NUP with the ED. Under adopted §321.48(d)(2)(E)(i), application to nonhistorical application fields owned or controlled by the owner of the CAFO must also be conducted in accordance with the requirements of §321.39 and §321.40. The commission notes that under §321.39(f)(28)(G), when results of the annual soil analysis for extractable phosphorus in §321.39(f)(28)(F) indicate a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular waste or wastewater land application field or if ordered by the commission to do so in order to protect the quality of waters in the state, then the operator shall not apply any waste or wastewater to the affected area unless the waste or wastewater application is implemented in accordance with a detailed NUP. The commission has amended §321.49(d)(1) to clarify that the soil sampling requirement applies to each waste application field, including each historical waste application field. Therefore, if the waste application field falls within the definition of “historical waste application field,” then composite soil sampling of that field must be conducted not less than once every 12 months even if the field was not used for land application the previous year.

TAD commented that the proposed removal options do not include application to a nonhistorical application field that is not owned or controlled by the owner of the CAFO, and asked whether the commission is prohibiting land application on third-party fields.

The commission responds that there is no permit option under the statute or the adopted rule for application to a nonhistorical application field that is not owned or controlled by the owner of the CAFO, if the field is inside the watershed. This adoption reflects the statutory language under TWC, §26.503(b). If the field is outside of the watershed, then an option exists under adopted §321.48(d)(2)(A) for beneficial use.

TAD commented that for CAFOs in the Bosque River watershed, an individual permit would not be required for renewal of a registration for an existing facility without an expansion or any major modification.

The commission responds that §321.48 applies to new dairy CAFOs and to dairy CAFOs increasing the number of animals confined under an existing operation that are feeding operations 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. Section 321.48 requires that the owner or operator shall submit a permit application and obtain a new or amended individual permit prior to: 1.) constructing or operating a new dairy CAFO, as defined in §321.32 of this title; or 2.) increasing the number of dairy animals confined under an existing operation. Nothing in this section limits the commission's authority to include in an individual or

general permit under this subchapter, provisions necessary to protect a water resource in this state. The commission notes that §321.33(r)(2)(B) requires an individual permit application for any renewal in accordance with the applicable requirements under §321.34, for an existing registered or permitted CAFO with any part of any pen, lot, pond, or other type of control or retention facility or structure of the CAFO located or proposed to be located within the protection zone of a sole-source surface drinking water supply. No changes to the proposed text have been made in response to this comment.

Section 321.49 - Dairy Waste Application Field Soil Sampling and Testing

Representative Averitt stated that it was the intent of the legislature to implement TWC, §26.504, relating to Waste Application Field Soil Sampling and Testing, immediately and urged the commission to revise the implementation date to reflect legislative intent. Representative Dunnam also commented that the soil testing requirements should be implemented immediately. The City of Waco commented that the third-party soil testing requirements should be effective immediately on the effective date of these rules, for all CAFOs in the (Bosque River) watershed. The Sierra Club expressed concern that the proposed rules require existing CAFOs, under proposed §321.49(c), to implement the soil sampling and testing requirements no later than September 1, 2003, when there is an existing problem which should prompt timely implementation. The Wallace Group reiterated the need to start the third-party testing as soon as possible. On the other hand, TAD commented that it concurs with the proposal to require non-expanding existing CAFOs to implement the soil sampling and testing requirements no later than September 1, 2003.

The commission adopts a revision to the proposed text concerning the implementation date for soil sampling and testing by existing dairy CAFOs not increasing the number of animals. The commission believes that immediate implementation is not practical, primarily due to the dearth of individuals that are qualified and available to collect the soil samples. This problem is exacerbated by the fact that these same individuals must develop NUPs. Nevertheless, the commission agrees that an earlier implementation date than September 1, 2003 is appropriate. Therefore, adopted §321.49(c) requires existing dairy CAFOs not increasing the number of animals to implement the requirements of this section concurrent with the next required annual soil sampling date established in the pollution prevention plan, beginning six months after the effective date of these rules.

The City of Waco provided several comments concerning proposed §321.49 and stated that the commission should ensure that application of waste is regulated at a standard equal to or more stringent than the existing requirements for application and soil phosphorus limits as set out in Chapter 321, Subchapter B. The commenter stated that if a waste application field contains extractable phosphorus levels greater than 200 ppm, then application of waste should be suspended until the phosphorus uptake has occurred to such an extent that soil sampling shows the phosphorus level to be below 200 ppm.

The commission has made no change to the proposed text in response to this comment and believes that the adopted rule accurately reflects the applicable statutory requirements of HB 2912, Article 12. The commission notes that neither the existing rules nor the statute contains a requirement that when a waste application field contains extractable phosphorus levels greater than 200 ppm,

then application of waste should be suspended until the phosphorus uptake has occurred to such an extent that soil sampling shows the phosphorus level to be below 200 ppm.

The City of Waco commented that under proposed §321.49(i), the discretion of the ED for taking enforcement action is very broad. The commenter noted that the list of mitigating factors that the ED must take into consideration include, but are not limited to, factors ranging from acts of God to variability of soil testing results. The commenter asked, based on the possible arguments against taking an enforcement action, if the ED anticipates any condition under which enforcement would be taken. Finally, the commenter stated that given the number of mitigating factors, and granted the complicated factors involved, it would be more prudent to include in the NUP defined actions that must be undertaken to reduce phosphorus levels within a defined time frame and that enforcement for the case where the soil phosphorous is not reduced be keyed to the compliance with these defined actions and time frames.

The commission has made no changes to the proposed text in response to this comment. First, the language concerning the mitigating factors is statutory language. The statute directs the ED to consider any explanation presented by the owner or operator regarding the reasons for the lack of phosphorus reduction. The commission expects that the ED will consider each case based on its own merits and that documentation will be required to support the reason(s) given for the lack of phosphorus reduction. The commission notes that §321.39(f)(28)(G) contains requirements for NUP development, implementation, and enforcement, including defined time frames and actions, based on technical criteria related to each waste application field.

Proposal Preamble

TAD questioned the adequacy of the fiscal note and related sections in the proposal preamble, and requested that a local impact statement be prepared. This commenter provided certain anecdotal information to support the commenter's opinions. The City of Waco questioned the proposal preamble language regarding the small business and micro-business assessment.

The commission believes that the proposal preamble fairly and accurately considered the necessary factors, and it is speculative to assume that the preamble is inadequate based on anecdotal information or impacts not directly related to this rulemaking.

STATUTORY AUTHORITY

The amendments and new sections are adopted under TWC, §26.0286, which requires that the TNRCC 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; TWC, Chapter 26, Subchapter L, which requires that the TNRCC authorize the construction or operation of a new or expanded dairy CAFO located within 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; and SB 1339, §3, 77th Legislature, 2001, which states that a poultry operation may not be designated as a point source of pollution unless the poultry operation meets the requirements for designation as a point source under TWC, Chapter 26 or 30 TAC §§321.31 - 321.37. The amendments and new sections are also adopted under TWC, §5.102,

which establishes the commission's general authority necessary to carry out its jurisdiction; §5.103, which establishes the commission's general authority to adopt rules; §5.105, which establishes the commission's authority to set policy by rule; §5.013, which establishes the commission's authority over various statutory programs; §26.011, which establishes the commission's authority over water quality in the state; and §26.028, which establishes the commission's authority to approve certain applications for wastewater discharge; and Texas Government Code, §2001.006, which authorizes state agencies to adopt rules or take other administrative action that the agency deems necessary to implement legislation.

SUBCHAPTER B: CONCENTRATED ANIMAL FEEDING OPERATIONS

§§321.32 - 321.34, 321.35, 321.39, 321.48, 321.49

§321.32. Definitions.

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) **Agronomic rates** - The land application of animal wastes or wastewater at rates of application which will 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** - 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. Two or more animal feeding operations under common ownership are a single animal feeding operation if they adjoin each other, or if they use a common area or system for the beneficial use of wastes.

(4) **Animal unit** - A unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle and dairy heifers multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of weaned swine weighing 55 pounds or less multiplied by 0.1, plus the number of sheep multiplied by 0.1, plus the number of horses/mules multiplied by 2.0.

(5) **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.

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

(7) **CAFO general permit** - A general permit issued or adopted by the commission in accordance with Chapter 26 of the Texas Water Code for the express purpose to regulate discharges from CAFOs on a statewide or geographic basis.

(8) **Chronic or catastrophic rainfall event** - For the purposes of these rules, these terms shall mean a series of rainfall events which would not provide opportunity for dewatering and which would be equivalent to or greater than the 25-year, 24-hour storm event or any single event which would be equivalent to or greater than the 25-year, 24-hour storm event. Catastrophic conditions could include tornados, hurricanes, or other catastrophic conditions which could cause overflow due to the high winds or mechanical damage.

(9) **Concentrated animal feeding operation (CAFO)** - Any animal feeding operation which the executive director designates as a significant contributor of pollution or any animal feeding operation defined as follows:

(A) any new and existing operations which stable and confine and feed or maintain for a total of 45 days or more in any 12-month period more than the numbers of animals specified in any of the following categories:

- (i) 1,000 slaughter or feeder cattle;
- (ii) 700 mature dairy cattle (whether milkers or dry cows);
- (iii) 2,500 swine weighing over 55 pounds or 10,000 weaned swine weighing 55 pounds or less;

(iv) 500 horses;

(v) 10,000 sheep;

(vi) 55,000 turkeys;

(vii) 100,000 laying hens or broilers when the facility has unlimited continuous flow watering systems;

(viii) 30,000 laying hens or broilers when facility has a liquid waste handling system;

(ix) 5,000 ducks; or

(x) 1,000 animal units from a combination of slaughter steers and heifers, mature dairy cattle, swine over 55 pounds, and sheep;

(B) any new and existing operations covered under this subchapter which discharge pollutants into waters in the state either through a man-made ditch, flushing system, or other similar man-made device, or directly into the waters in the state, and which stable or confine and feed or maintain for a total of 45 days or more in any 12-month period more than the numbers or types of animals in the following categories:

- (i) 300 slaughter or feeder cattle;
- (ii) 200 mature dairy cattle (whether milkers or dry cows);
- (iii) 750 swine weighing over 55 pounds or 3,000 weaned swine weighing 55 pounds or less;
- (iv) 150 horses;
- (v) 3,000 sheep;
- (vi) 16,000 turkeys;
- (vii) 30,000 laying hens or broilers when the facility has unlimited continuous flow watering systems;
- (viii) 9,000 laying hens or broilers when facility has a liquid waste handling system;
- (ix) 1,500 ducks; or

(x) 300 animal units from a combination of slaughter steers and heifers, mature dairy cattle, swine over 55 pounds, and sheep;

(C) poultry facilities that have no discharge to waters in the state normally are not considered a CAFO. However, poultry facilities that use a liquid waste handling system or stockpile litter near watercourses or dispose of litter on land such that stormwater runoff will be transported into surface water or groundwater may be considered a CAFO.

(10) **Control facility** - Any system used for the retention of wastes on the premises until their ultimate use or disposal. This includes the collection and retention of manure, liquid waste, process wastewater, and runoff from the feedlot area.

(11) **Dairy Outreach Program areas** - The areas include all of the following counties: Erath, Bosque, Hamilton, Comanche, Johnson, Hopkins, Wood, and Rains.

(12) **Edwards Aquifer** - That portion of an arcuate belt of porous, waterbearing predominantly carbonate rocks known as the Edwards (Balcones Fault Zone) Aquifer trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devils River Limestone, Person Formation, Kainer Formation, Edwards Group, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose

Formation to the south, overlie the less-permeable Comanche Peak and Walnut formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

(13) **Edwards Aquifer recharge zone** - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area delineated as such on official maps located in the appropriate regional office and groundwater conservation districts.

(14) **Flushwater waste handling system** - A system in which freshwater or wastewater is recycled or used in transporting waste.

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

(16) **Historical waste application field** - An area of land located in a major sole-source impairment zone, as defined in this section, that at any time since January 1, 1995, has been owned or controlled by an operator of a concentrated animal feeding operation (CAFO) on which agricultural waste from a CAFO has been applied.

(17) **Hydrologic connection** - The interflow and exchange between control facilities or surface impoundments and waters in the state through an underground corridor or connection.

(18) **Lagoon** - An earthen structure for the biological treatment for liquid organic wastes. Lagoons can be aerobic, anaerobic, or facultative depending on their design and can be used in series to produce a higher quality effluent.

(19) **Land application** - The removal of wastewater and waste solids from a control facility and distribution to, or incorporation into, the soil mantle primarily for beneficial reuse purposes.

(20) **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 structures and waters in the state.

(21) **Major sole-source impairment zone** - A watershed that contains a reservoir:

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

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

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

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

(22) **Natural Resources Conservation Service (NRCS)** - An agency of the United States Department of Agriculture which includes the agency formerly known as the Soil Conservation Service (SCS).

(23) **New CAFO** - A CAFO which was not authorized under a rule, order, or permit of the commission in effect on August 19, 1998. For the purposes of §321.48 of this title (relating to Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs), new CAFO means a proposed CAFO, any part of which is located on property not previously authorized by the state to be operated as a CAFO.

(24) **No discharge** - The absence of flow of waste, process generated wastewater, contaminated rainfall runoff or other wastewater from the premises of the animal feeding operation, except for overflows which result from chronic or catastrophic rainfall events.

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

(26) **Open lot** - Pens or similar confinement areas with dirt, concrete, or other paved or hard surfaces wherein animals 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. 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.

(27) **Operator** - The owner or one who is responsible for the management of a CAFO or an animal feeding operation subject to the provisions of this subchapter.

(28) **Permanent odor sources** - Those odor sources which 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 facilities, 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 application areas.

(29) **Permittee** - Any person issued or covered by an individual permit or order, permit-by-rule, or granted authorization under the requirements of this subchapter.

(30) **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.

(31) **Process wastewater** - Any process generated wastewater directly or indirectly used in the operation of a CAFO (such as spillage or overflow from animal or poultry watering systems which comes in contact with waste; washing, cleaning, or flushing pens, barns, manure pits; direct contact swimming, washing, or spray cooling of animals; and dust control), and precipitation which comes into contact with any manure or litter, bedding, or any other 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).

(32) **Process generated wastewater** - Any water directly or indirectly used in the operation of a CAFO (such as spillage or overflow from animal or poultry watering systems which comes in contact with waste; washing, cleaning, or flushing pens, barns, manure pits; direct contact swimming, washing, or spray cooling of animals; and dust control) which is produced as wastewater.

(33) **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.

(34) **Qualified groundwater scientist** - A scientist or engineer who has received a baccalaureate or post-graduate degree in natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certification, or completion of accredited university programs that enable that individual to

make sound professional judgements regarding groundwater monitoring, contamination fate and transport, and corrective action.

(35) **Recharge feature** - Those natural or artificial features either on or beneath the ground surface at the site under evaluation which, due to their existence, provide or create a significant pathway between the ground surface and the underlying groundwater within an aquifer. Examples include, but are not limited to: a permeable and porous soil material that directly overlies a weakly cemented or fractured limestone, sandstone, or similar type aquifer; fractured or karstified limestone or similar type formation that crops out on the surface, especially near a water course; or wells.

(36) **Retention facility or retention structure** - All collection ditches, conduits, and swales for the collection of runoff and wastewater, and all basins, ponds, pits, tanks, and lagoons used to store wastes, wastewaters, and manures.

(37) **Sole-source surface drinking water supply** - A body of surface water that is identified as a public water supply in §307.10, Appendix A of Chapter 307 of this title (relating to Texas Surface Water Quality Standards) and is the sole source of supply of a public water supply system, exclusive of emergency water connections.

(38) **25-year, 24-hour rainfall event/25-year 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 developed therefrom.

(39) **Waste** - Manure (feces and urine), litter, bedding, or feedwaste from animal feeding operations.

(40) **Wastewater** - Water containing waste or contaminated by waste contact, including process-generated and contaminated rainfall runoff.

(41) **Waters in the state** - Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, 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.

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

(B) 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) excavation designed to inject or place any liquid, solid, gas, vapor, or any combination of liquid, solid, gas, or vapor into any soil or geologic formation below the land surface;
or

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

§321.33. Applicability.

(a) Any concentrated animal feeding operation (CAFO) operating under currently effective authorization granted under state law only by the Texas Natural Resource Conservation Commission (agency) or under federal law by EPA prior to the effective date of these amended rules as published in the July 23, 1999 issue of the *Texas Register* (24 TexReg 5721) shall submit to the executive director written notice as required in §321.47 of this title (relating to Initial Texas Pollutant Discharge Elimination System (TPDES) Authorization) or do one of the following.

(1) Within 60 days of the effective date of these amended (1999) rules, the facility owner or operator shall apply for authorization under this amended subchapter (1999) in accordance

with the provisions of either §321.34 or §321.35 of this title (relating to Procedures for Making Application for an Individual Permit or Procedures for Making Application for Registration). If such application is filed within the 60-day period, and is administratively and technically complete, the applicant shall continue to operate the facility under the terms of the expired authorization until final disposition of the application in accordance with this subchapter.

(2) Any facility holding an authorization from the agency and which is not required under federal law to obtain National Pollutant Discharge Elimination System (NPDES) authorization shall continue to operate under the terms of its existing agency authorization until expiration, amendment, or termination. All such agency authorizations shall expire five years from the effective date of the amendments (1999) to these rules, unless such authorization specifies an earlier expiration date.

(3) Any facility holding an authorization from the agency under state law only and which under federal law is required to, but does not, hold a current NPDES authorization, shall file an application in accordance with provisions of this subchapter within 60 days of the effective date of these amended (1999) rules.

(b) The executive director may designate any animal feeding operation as a CAFO and require it to comply with any of the requirements of this subchapter, including those to apply for, receive, and comply with an individual permit under §321.34 of this title, in order to achieve the policy and purposes enumerated in the Texas Water Code (TWC), §5.120 and §26.003; the Texas Health and

Safety Code, Chapters 341, 361, and 382; and §321.31 of this title (relating to Waste and Wastewater Discharge and Air Emission Limitations). Cases for which an individual permit may be required include, but are not limited to, situations where:

- (1) the operation is located near surface and/or groundwater resources;
 - (2) compliance with standards in addition to those listed in this subchapter is necessary in order to protect waters in the state from pollution;
 - (3) the operation is not in compliance with the standards of this subchapter;
 - (4) the operation is under formal commission enforcement or has been referred to the commission for enforcement by the Texas State Soil and Water Conservation Board; or
 - (5) the owner and/or operator has submitted an application for registration or for a major amendment to a registration which does not comply with the requirements for administrative and technical completeness in §321.36(a)(1) of this title (relating to Notice of Application for Registration).
- (c) New CAFOs are prohibited on the Edwards Aquifer recharge zone.
- (d) Any facility, including all poultry operations as described in TWC, §26.302, which qualifies for, obtains, and is operating under a certified water quality management plan from the Texas

State Soil and Water Conservation Board 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 the Texas Agriculture Code, §201.026.

(e) Operators of animal feeding operations not required to submit an application for either a registration or an individual permit under this subchapter or authorized by a CAFO general permit in accordance with the notice of intent requirements of the general permit must locate, construct, and manage waste control facilities and land application areas to protect surface and groundwaters and prevent nuisance conditions and minimize odor conditions in accordance with the technical requirements of §§321.38 - 321.40 of this title (relating to Proper CAFO Operation and Maintenance; Pollution Prevention Plan; and Best Management Practices).

(f) Any existing, new, or expanding CAFO which is neither authorized by a CAFO general permit in accordance with the notice of intent requirements of such general permit or authorized under subsection (a) or (b) of this section and which is designed to stable or confine and feed or maintain for a total of 45 days or more in any 12-month period more than the numbers of animals specified in the definition of CAFO in §321.32(9)(A) of this title (relating to Definitions) shall apply for registration in accordance with §321.35 of this title or individual permit in accordance with §321.34 of this title.

(g) Any existing, new, or expanding animal feeding operation which is neither authorized by a CAFO general permit in accordance with the notice of intent requirements of such general permit nor authorized under subsection (a) or (b) of this section, which is located in areas specified in the

definition of Dairy Outreach Program areas in §321.32(11) of this title, and which is designed to stable or confine and feed or maintain for a total of 45 days or more in any 12-month period more than the number of animals specified in the definition of CAFO in §321.32(9)(B) of this title, but less than or equal to the number of animals specified in the definition of CAFO in §321.32(9)(A) of this title shall apply for registration in accordance with §321.35 of this title or individual permit in accordance with §321.34 of this title.

(h) Any CAFO authorized under this subchapter must develop and implement a pollution prevention plan in accordance with the provisions of this subchapter.

(i) Any existing, new, or expanding CAFO, which is required to submit an application for registration or an application for an individual permit in accordance with this subchapter, may not commence operation of any waste management facilities or the construction of any facility that has the potential to emit air contaminants without first receiving authorization in accordance with this subchapter or in accordance with a commission order.

(j) Any CAFO which has existing authority under the Texas Clean Air Act (TCAA) does not have to meet the air quality criteria of this subchapter. Upon request, under the TCAA, §382.051, any CAFO which files an application, meets the requirements of §321.46 of this title (relating to Air Standard Permit Authorization), and obtains approval of such application in accordance with the provisions of this subchapter is hereby entitled to an air quality standard permit authorization under this subchapter in lieu of the requirement to obtain an air quality permit under Chapter 116 of this title

(relating to Control of Air Pollution by Permits for New Construction or Modification). Those CAFOs which would otherwise be required to obtain an air quality permit under Chapter 116 of this title, and which do not satisfy all of the requirements of this subchapter, shall apply for and obtain an air quality permit under Chapter 116 of this title in addition to any authorization required under this subchapter. Those animal feeding operations which are not required to obtain authorization under this subchapter may be subject to requirements under Chapter 116 of this title. Any change in conditions such that a person is no longer eligible for authorization under this section requires authorization under Chapter 116 of this title. No person may concurrently hold an air quality permit issued under Chapter 116 of this title and an authorization with air quality provisions under this subchapter for the same site. Any application for a permit renewal, amendment, or transfer for any permit issued under the TCAA shall be reviewed and/or issued under the provisions of Chapter 116 of this title.

(k) Any animal feeding operation authorized under this subchapter which is a new major source, or major modification as defined in Chapter 116 of this title shall obtain a permit under Chapter 116 of this title.

(l) By written request to the executive director, the owner or operator of any facility described in subsection (a)(2) of this section may request a transfer of its authorization from an individual permit granted by the commission to a registration. Such transfer shall be processed in accordance with the provisions of §§321.35 - 321.37 of this title (relating to Procedures for Making Application for Registration; Notice of Application for Registration; and Actions on Applications for Registration). If approved, such transfer under this subsection shall include all special conditions or provisions from the

existing individual permit, and in addition, shall not impose any additional conditions or other requirements unless there is substantial modification to the facility constituting a major amendment as defined by §305.62 of this title (relating to Amendment) or to address compliance problems with the facility or its operations in accordance with a commission order or amendment. If approved, transfer of authorization under this subsection will require compliance with the appropriate provisions of §§321.38 - 321.42 of this title (relating to Proper CAFO Operation and Maintenance; Pollution Prevention Plans; Best Management Practices; Other Requirements; and Monitoring and Reporting Requirements). If approved, such transfer shall not require any changes to existing structural measures which are documented to meet design and construction standards in effect at the time of installation.

(m) No person may concurrently hold both an individual permit or approved registration under this subchapter and an authorization under a CAFO general permit in accordance with the notice of intent requirements of the general permit for the same site.

(n) Any new CAFO located within one mile of Coastal Natural Resource Areas as defined by §33.203(1) of the Texas Natural Resources Code shall apply for and obtain an individual permit in accordance with §321.34 of this title. Any owner/operator who is required to obtain an individual permit under this subsection may not commence physical construction and/or operation of any waste management facilities without first having submitted an application and received a final effective permit.

(o) By written request to the executive director, the owner or operator of any facility described in §321.33(a)(2) of this title (relating to Applicability) and holding an unexpired authorization granted under Subchapter K of this chapter (relating to Concentrated Animal Feeding Operations) may request a transfer of their authorization to a registration under this subchapter. Written request shall be on the same form as required under §321.47 of this title and continued authorization shall be in accordance with the terms of §321.47 of this title. A Subchapter K authorization that has been specifically set aside by court order shall not be eligible for transfer under this subsection.

(p) Any owner or operator holding a current authorization issued at any time under this subchapter shall obtain an amendment under §321.34 or §321.35 of this title prior to any increase in the number of animals authorized for confinement or to making any modification to the facility which would cause a substantial change to the site plan or in the buffer distance determination as specified in §321.46 of this title. Nonsubstantial modifications may be made to the site plan or the pollution prevention plan submitted with the approved application without prior authorization from the commission. Substantial modifications are those that result in an increase in the number of animals authorized to be confined, a change in the required buffer zone or required lagoon capacity, a change in boundaries of the site plan, or a violation of any management practice or physical or operational requirement of this subchapter.

(q) Section 321.48 of this title (relating to Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs) and §321.49 of this title (relating to Dairy Waste Application Field Soil Sampling and Testing) apply 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, as defined in §321.32 of this title.

(r) Subject to the requirements of subsection (s) of this section, the following requirements apply to any CAFO with any part of any pen, lot, pond, or other type of control or retention facility or structure of the CAFO located or proposed to be located within the protection zone of a sole-source surface drinking water supply, as defined in §321.32 of this title:

(1) for a proposed CAFO, the owner or operator shall obtain authorization to construct and operate the CAFO through the individual permit process prior to construction or operation; and

(2) for an existing registered or permitted CAFO:

(A) the owner or operator shall obtain an individual permit or an amended individual permit prior to making any changes which would require a major amendment;

(B) the owner or operator shall file an individual permit application for any renewal in accordance with the applicable requirements under §321.34 of this title; and

(C) if the CAFO is permitted, the permit authorization cannot be transferred to a registration.

(s) The commission shall process an application for authorization to construct or operate a CAFO as an individual permit under TWC, §26.028, relating to Action on Application, subject to the procedures provided by TWC, Chapter 5, Subchapter M, relating to Environmental Permitting Procedures, if, on the date the executive director determines that the application is administratively complete, any part of any 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 surface drinking water supply, as defined in §321.32 of this title.

§321.34. Procedures for Making Application for an Individual Permit.

(a) A concentrated animal feeding operation (CAFO) that was not authorized under a rule, order, or permit issued or adopted by the commission and in effect at the time of the adoption of these amended rules as published in the July 23, 1999 issue of the *Texas Register* (24 TexReg 5721) shall apply for an individual permit in accordance with the provisions of this section or shall apply for registration in accordance with the provisions of §321.35 of this title (relating to Procedures for Making Application for Registration). Application for an individual permit shall be made on forms provided by the executive director. The applicant shall provide such additional information in support of the application as may be necessary for an adequate technical review of the application. A facility which is not required under federal law to obtain National Pollutant Discharge Elimination System authorization may apply for a state-only individual permit, for a term of five years, which authorizes the discharge or disposal of waste or wastewater into or adjacent to water in the state only in the event of a 25-year, 24-hour rainfall event. At a minimum, the application shall demonstrate compliance with the technical

requirements set forth in §§321.38 - 321.42 of this title (relating to Proper CAFO Operation and Maintenance; Pollution Prevention Plans; Best Management Practices; Other Requirements; and Monitoring and Reporting Requirements) and shall demonstrate compliance with the requirements specified in §321.35(c) of this title. Applicants shall comply with §§305.41, 305.43, 305.44, 305.46, and 305.47 of this title (relating to Applicability; Who Applies; Signatories to Applications; Designation of Material as Confidential; and Retention of Application Data). Each applicant shall pay an application fee as required by §305.53 of this title (relating to Application Fees). An annual waste treatment inspection fee is also required of each permittee as required by §305.503 and §305.504 of this title (relating to Fee Assessments and Fee Payments). An annual Clean Rivers Program fee is also required as required under §220.21(d) of this title (relating to Water Quality Assessment Fees). Except as provided in subsections (b) - (e) of this section, each permittee shall comply with §§305.61 and 305.63 - 305.68 of this title (relating to Applicability; 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). Notice, public comment, and hearing on applications shall be conducted in accordance with commission rules governing individual permits issued under Chapter 26 of the Texas Water Code. Each permittee shall comply with §305.125 of this title (relating to Standard Permit Conditions). Individual permits granted under this subchapter shall be effective for a term not to exceed five years. To qualify for the air quality standard permit, the applicant must meet the requirements in §321.46 of this title (relating to Air Standard Permit Authorization).

(b) All applications for permit renewal must be administratively and technically complete, meet all applicable technical requirements of this subchapter, and be in accordance with one of the following.

(1) An application to renew an individual permit for an animal feeding operation which was issued between July 1, 1974, and December 31, 1977, may be renewed by the commission at a regular meeting without holding a public hearing if the applicant does not seek to discharge into or adjacent to waters in the state and does not seek to change materially the pattern or place of land application.

(2) Except as provided by §305.63(a)(3) of this title (relating to Renewals), an application for a renewal of an individual permit for a facility as described in §321.33(a)(2) of this title (relating to Applicability) may be granted by the executive director without public notice if it does not propose any change which constitutes a major amendment as defined in Chapter 305 of this title (relating to Consolidated Permits) or 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 shall be allowed only if there has been no related formal enforcement action against the facility during the last 36 months of the term of the permit in which the commission has determined that:

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

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

(C) such discharge or air emission violation could have been reasonably foreseen by the permittee. In addition to the provisions of subparagraphs (A) - (C) of this paragraph, for any application for renewal of a permit within an area specified in the definition of Dairy Outreach Program areas in §321.32(11) of this title (relating to Definitions), an annual compliance inspection shall have been completed within 12 months of the date the executive director declares the application administratively complete.

(3) If the application for renewal does not meet all of the criteria in this subsection, then an application for renewal shall be filed in accordance with subsection (a) of this section.

(c) Each applicant shall pay an application fee as required by §305.53 of this title.

(d) A permittee submitting an application for renewal satisfying the criteria in subsection (b)(2) of this section will automatically be issued a notice of renewal for the existing permit by the executive director.

(e) Any permittee with an issued and effective individual permit shall submit an application for renewal at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the executive director. The executive director shall provide the permittee

notice of deadline for the application for renewal at least 240 days before the permit expiration date.

The executive director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

(f) Notice provided by the executive director under subsection (e) of this section shall be sent by certified mail, return receipt requested.

(g) A facility owner or operator shall submit a complete application within 90 days of notification from the executive director that an individual permit is required.

(h) If an application requests an amendment as defined by §321.33(p) of this title of an existing individual permit, the application shall be filed and processed under this section.

(i) If a renewal application has been filed before the individual permit expiration date, the existing individual permit will remain in full force and effect and will not expire until action on the application for renewal is final.

§321.35. Procedures for Making Application for Registration.

(a) A concentrated animal feeding operation (CAFO) that is not authorized under a rule, order, or permit of the commission in effect at the time of the adoption of these amended rules as published in the July 23, 1999 issue of the *Texas Register* (24 TexReg 5721) shall apply for and receive registration

under this section or shall apply for an individual permit in accordance with the provisions of §321.34 of this title (relating to Procedures for Making Application for an Individual Permit). A person who requests a registration or renewal of such registration granted under this subchapter, or an amendment as defined in §321.33(p) of this title (relating to Applicability), shall submit a complete and accurate application to the executive director, according to the provisions of this section.

(b) Applicants shall comply with the applicable provisions of §§305.43, 305.44, 305.46, and 305.47 of this title (relating to Who Applies; Signatories to Applications; Designation of Material as Confidential; and Retention of Application Data).

(c) Application for registration under this section shall be made on forms prescribed by the executive director. Except as provided in §321.33(r) of this title and §321.48 of this title (relating to Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs)), a facility which is not required under federal law to obtain National Pollutant Discharge Elimination System authorization may apply for a state-only registration, which authorizes the discharge or disposal of waste or wastewater into or adjacent to water in the state only in the event of a 25-year, 24-hour rainfall event, or may transfer from an individual permit to such a registration in accordance with §321.33(l) of this title. The applicant shall submit an original completed application with attachments and one copy of the application with attachments to the executive director at the headquarters in Austin, Texas, and one additional copy of the application with attachments to the appropriate commission regional office. The completed application shall be submitted to the executive director signed and notarized and with the following information:

- (1) the verified legal status of the applicant;
- (2) the payment of applicable fees;
- (3) the signature of the applicant, in accordance with subsection (b) of this section;
- (4) the maximum number of animals for which the facilities have been designed;
- (5) a proposed site plan for the facility showing the boundaries of land owned, operated, or controlled by the applicant and to be used as a part of a CAFO, the locations of all pens, lots, ponds, on-site and off-site land application areas, and any other types of control or retention facilities, and all adjacent landowners within 500 feet of the property line of all tracts containing facilities and all on-site or off-site land application areas, including their name and address. As used in this subchapter, the term "land application area" does not apply to any lands not owned, operated, or controlled by the CAFO operator for the purpose of off-site land application of manure, wherein the manure is given or sold to others for land application;
- (6) a county general highway map (with graphic scale clearly shown) to identify the relative location of the CAFO and at least a one mile area surrounding the facility;
- (7) one original (remainder in copies) United States Geological Survey 7 1/2-minute quadrangle topographic map or an equivalent high quality copy showing the boundaries of land owned,

operated, or controlled by the applicant and to be used as a part of a CAFO, and within 500 feet of the outer boundary of the land application area(s), open lots, and control facilities, the location of all private water wells (abandoned or in use) and public wells and all springs, lakes, or ponds within one mile of the outer boundary of the retention facility and downstream of the facility;

(8) sections of the pollution prevention plan to be designated by the executive director. Prior to utilization of wastewater retention facilities, documentation of liner certifications by a licensed professional engineer must be submitted (if applicable);

(9) a copy of a recorded deed or tax records showing ownership, or a copy of a contract or lease agreement between the applicant and the owner/operator of any lands to be utilized under the proposed CAFO. This requirement does not apply to any lands not owned, operated, or controlled by the applicant for the purpose of off-site land application of manure wherein the manure is given or sold to others for beneficial use, provided the owner/operator of the CAFO is not involved in the application of the manure;

(10) a certification by a Natural Resources Conservation Service (NRCS) engineer, licensed professional engineer, or qualified groundwater scientist documenting the absence or presence of any recharge features identified on any tracts of land owned, operated, or controlled by the applicant and to be used as a part of a CAFO. Documentation, by the certifying party shall identify the sources and/or methods used to identify the presence or absence of recharge features. The documentation shall include the method or approach to be used to identify previously unidentified and/or undocumented

recharge features that may be discovered during the time of construction. At a minimum, the records and/or maps of the following entities/agencies shall be reviewed to locate any artificial recharge features:

(A) Railroad Commission;

(B) Groundwater District, if applicable;

(C) Texas Water Development Board;

(D) TNRCC;

(E) NRCS;

(F) previous owner of site, if available, and

(G) on-site inspection of site with a NRCS engineer, licensed professional engineer, or qualified groundwater scientist;

(11) where the applicant cannot document the absence of recharge features on the tracts for which an application is being filed, the proposed site plan shall also indicate the specific location of any and all recharge features found on any property owned, operated, or controlled by the applicant

under the application as certified by a NRCS engineer, licensed professional engineer, or qualified groundwater scientist. The applicant shall also submit a plan, developed by a NRCS engineer or licensed professional engineer, to prevent impacts on any located recharge feature and associated groundwater formation which may include the following:

(A) installation of the necessary and appropriate protective measures for each located recharge feature such as impervious cover, berms, or other equivalent protective measures covering all affected facilities and land application areas; or

(B) 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) any other similar method or approach demonstrated by the applicant to be protective of any associated recharge feature;

(12) area land use map (air quality only). This map shall identify the property line, the permanent odor sources and the distance and direction to any residences, animal feeding operations, businesses, public parks, or occupied structures within a one-mile radius of the permanent odor sources

to show compliance with §321.46 of this title (relating to Air Standard Permit Authorization). The map shall include the north arrow and scale of map;

(13) the applicant shall indicate in the application the location and times where the application may be inspected by the public. Within 48 hours of receiving notice of administrative and technical completeness, the applicant shall make a copy of the application and the entire pollution prevention plan available for public inspection at the applicant's place of business during normal business hours, Monday through Friday, and at a public place within the county where the proposed facility is to be located so that the copy may be made available for inspection at a public place during normal business hours. For the purposes of this section, normal business hours shall be at a minimum of: 9:00 a.m. to noon and from 1:00 p.m. to 5:00 p.m., Monday through Friday allowing for the observance of state and/or federal holidays. Such places may include, but are not limited to, public libraries; district, county, or municipal offices; community recreation centers; or public schools;

(14) for an application for 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, documentation showing whether or not the facility is located in a major sole-source impairment zone, as defined in §321.32 of this title (relating to Definitions), if the application is for authorization to:

(A) construct or operate a new dairy CAFO, as defined in §321.32 of this title;

or

(B) increase the number of dairy animals confined under an existing operation;

and

(15) for applications for CAFOs located in the watershed of a sole-source surface drinking water supply, as defined in §321.32 of this title, documentation showing whether or not any part of any 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 surface drinking water supply, as defined in §321.32 of this title.

(d) Each applicant shall pay an application fee as required by §305.53 of this title (relating to Application Fees). An annual waste treatment inspection fee is also required of each registrant as required by §305.503 and §305.504 of this title (relating to Fee Assessment and Fee Payment). An annual Clean Rivers Program fee is also required as required under §220.21(d) of this title (relating to Water Quality Assessment Fees). No fees under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) shall be required of an applicant for an authorization issued under this section.

(e) Each registrant shall comply with and is subject to the provisions of §§305.61, 305.64 and 305.66 - 305.68 of this title (relating to Applicability; Transfer of Permits; Permit Denial, Suspension, and Revocation; Revocation and Suspension Upon Request or Consent; Action and Notice on Petition for Revocation or Suspension).

(f) Registrations approved under this subchapter shall be effective for a term not to exceed five years.

(g) (Air quality only). To qualify for the air quality standard permit, the applicant must meet the requirements in §321.46 of this title.

(h) Registrations issued under §321.37 or §321.47 of this title (relating to Action on Applications for Registration or Initial Texas Pollutant Discharge Elimination System (TPDES) Authorization) shall expire five years after the effective date of these amendments (1999), and no new registrations shall be issued after that date. However, if the commission proposes to amend or readopt these rules prior to such expiration date, all registrations shall remain in effect until final commission action on the proposed amendment or readoption. An application for renewal of a registration under this section must be administratively and technically complete, meet all applicable technical requirements of this subchapter, and, except as otherwise provided in paragraphs (1) - (5) of this subsection, be processed according to §321.36 and §321.37 of this title (relating to Notice of Application for Registration and Action on Application for Registration). A registration for a facility described in §321.33(a)(2) of this title may be renewed, according to the following procedures.

(1) Except as provided by §305.63(a)(3) of this title (relating to Renewals), an administratively and technically complete application may be granted by the executive director without public notice if it does not propose any other change to the registration as approved. Renewal under this paragraph shall be allowed only if there has been no related formal enforcement action against the

facility during the last 36 months of the term of the registration in which the commission has determined that:

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

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

(C) such discharge or air emission violation could have been reasonably foreseen by the registrant. In addition to the provisions of subparagraphs (A) - (C) of this paragraph, for any application for renewal of a registration within an area specified in the definition of Dairy Outreach Program areas in §321.32(11) of this title, an annual compliance inspection shall have been completed within 12 months of the date the executive director declares the application administratively complete.

(2) Each applicant shall pay an application fee as required by §305.53 of this title.

(3) A registrant submitting an application for renewal of a registration satisfying the criteria in paragraph (1) of this subsection will automatically be issued a renewal for the existing registration by the executive director.

(4) If the application for renewal of a registration cannot meet all of the criteria in paragraph (1) of this subsection, then an application for renewal of the registration shall be filed in accordance with subsection (a) of this section and processed in accordance with §321.36 and §321.37 of this title.

(5) Any registrant with an effective registration shall submit an application for renewal at least 180 days before the expiration date of the effective registration, unless permission for a later date has been granted by the executive director. The executive director shall provide the registrant notice of deadline for the application for renewal by certified mail, return receipt requested, at least 240 days before the registration expiration date. The executive director shall not grant permission for applications to be submitted later than the expiration date of the existing registration.

§321.39. Pollution Prevention Plans.

(a) A pollution prevention plan shall be developed for each concentrated animal feeding operation (CAFO) covered under this subchapter. Pollution prevention plans shall be prepared in accordance with good engineering practices and shall include measures necessary to limit the discharge of pollutants to waters 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, maintenance, and revision of the pollution prevention plan. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's pollution prevention plan.

(b) Where a Natural Resources Conservation Service (NRCS) plan has been prepared for the facility, the pollution prevention plan may refer to the NRCS plan when the NRCS plan documentation contains equivalent requirements for the facility. When the operator uses a NRCS plan as partial completion of the pollution plan, the NRCS plan must be kept on site. Design and construction criteria developed by the NRCS can be substituted for the documentation of design capacity and construction requirements (see subsection (f) of this section) of the pollution prevention plan provided the required inspection logs and water level logs in subsection (f)(3) and (11) of this section are kept with the NRCS Plan. Waste management plans developed by the NRCS can be substituted for the documentation of application rate calculations in subsection (f)(19) and (24) of this section. NRCS Waste Management Plans which have been prepared since January 1, 1989 are considered by the NRCS to contain adequate management practices. To insure the protection of water quality, the NRCS has determined that NRCS plans prepared prior to 1989 must be submitted for renewal with the Natural Resources Conservation Service or a waste management professional before December 1995. NRCS has determined that all plans should be reviewed every five years to insure proper management of wastes.

(c) 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 be retained on site. The plan shall be updated as appropriate.

(d) Upon completion of a plan review, the executive director may notify the operator 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.

(e) The operator shall amend the plan prior to any change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters in the state or if the pollution prevention plan proves to be ineffective in achieving the general objectives of controlling pollutants in discharges from CAFOs.

(f) The plan shall include, at a minimum, the following items.

(1) Each plan shall provide a description of potential pollutant sources. Potential pollutant sources include any activity or material that may reasonably be expected to add pollutants to waters in the state from the facility. An evaluation of potential pollutant sources shall identify the types of pollutant sources, provide a description of the pollutant sources, and indicate all measures that will be used to prevent contamination from the pollutant sources. The type of pollutant sources found at any particular site varies depending upon a number of factors, including, but not limited to: site location,

historical land use, proposed facility type, and land application practices. The evaluation shall encompass all land that will be used as part of the CAFO as indicated in the site plan. Each potential pollutant source must be identified in the plan. A thorough site inspection of the facility is recommended to ensure that all sources have been identified. Potential pollutant sources found at CAFO facilities include, but are not limited to, the following: manure; sludge; wastewater; dust; silage stockpiles; fuel storage tanks; pesticide storage and applications; lubricants; disposal of any dead animals associated with production at the CAFO; land application of waste and wastewater; manure stockpiling; pond clean-out; vehicle traffic; and pen clean-out. Each plan shall include:

(A) a site plan/map, or topographic map indicating, an outline of the property that will be used in the waste generation and utilization activities of the CAFO area; each existing structural control measure to reduce pollutants in wastewater and precipitation runoff; and surface water bodies;

(B) identification of the specific location of any recharge features identified on any tracts of land planned to be utilized under the provisions of this subchapter. In addition, the plan should also locate and describe the function of all measures installed to prevent impacts to identified recharge features;

(C) a list of any significant spills of these materials at the facility after September 18, 1998, or for new facilities, since date of operation; and

(D) all existing sampling data.

(2) The pollution prevention plan for each facility shall include a description of management controls appropriate for the facility, and the operator must implement such controls. The appropriateness and priorities of any controls shall reflect the identified sources of pollutants at the facility.

(3) The plan shall include the location and a description of structural controls. Structural controls shall be inspected, by those individuals identified in the pollution prevention plan as responsible for development, implementation, maintenance, and revision of the plan, at least four times per year for structural integrity and maintenance. The plan shall include dates for inspection of the retention facility, and a log of the findings of such inspections. The appropriateness of any controls shall reflect the identified sources of pollutants at the facility.

(4) The plan must include documentation of the assumptions and calculations used in determining the appropriate volume capacity of the retention facilities. In addition to the 25-year, 24-hour rainfall, the volume capacity of the retention facility shall be designed to meet the demands of a hydrologic needs analysis (water balance) which demonstrates the irrigation water requirements for the cropping system maintained on the wastewater application site(s). Precipitation inputs to the hydrologic needs analysis (water balance) shall be the average monthly precipitation taken from an official source such as the "Climatic Atlas of Texas," LP-192, published by the Texas Department of Water Resources, dated December, 1983, or the most recent edition, or successor publication. The

consumptive use requirements of the cropping system shall be developed on a monthly basis, and shall be calculated as a part of the hydrologic needs analysis (water balance). The following volumes shall be considered in determining the analysis:

- (A) the runoff volume from all open lot surfaces;
- (B) the runoff volume from all areas between open lot surfaces that is directed into the retention facilities;
- (C) the rainfall multiplied by the area of the retention and waste basin;
- (D) the volume of rainfall from any roofed area that is directed into the retention facilities;
- (E) all waste and process generated wastewater produced during a 21-day, or greater, period;
- (F) the estimated storage volume for a minimum one year of sludge accumulation;
- (G) the storage volume required to contain all wastewater and runoff during periods of low crop demand;

(H) the evaporation volume from retention facility surfaces;

(I) the volume applied to crops in response to crop demand;

(J) the minimum treatment volume required for waste treatment, if treatment lagoon; and/or

(K) any additional storage volume required as a safety measure as determined by the system designer.

(5) The maximum required storage value calculated by the hydrologic analysis requirements shall not encroach on the storage volume required for the 25-year, 24-hour rainfall event. Wastewater application rates utilized in the hydrologic needs analysis (water balance) shall not induce runoff or create tailwater.

(6) In addition, the retention facility shall include a top freeboard of not less than two feet. Freeboard shall account for settlement and slope stability of the materials used at the time of design and construction.

(7) (Air quality only). A lagoon in a single lagoon system and a primary lagoon in a multi-stage lagoon system shall be designed to maintain the necessary treatment volume or surface area as calculated using the manure production data (mean plus one standard deviation) published by

American Society of Agricultural Engineers (ASAE) standards D384.1, dated June, 1988, and applicable updates to comply with anaerobic lagoon design criteria as established by ASAE standards EP-403.2, dated December, 1992, and applicable updates, or other site-specific data documented in the pollution prevention plan.

(8) Evaporation systems shall be designed to withstand a ten-year (consecutive) period of maximum recorded monthly rainfall (other than catastrophic), as determined by a hydrologic needs analysis (water balance), and sufficient freeboard (not less than one foot) shall be maintained to dispose of rainfall and rainfall runoff from the 25-year, 24-hour rainfall event without overflow. In the hydrologic needs analysis determination, in any month in which a catastrophic event occurs, the analysis shall replace such an event with not less than the long-term average rainfall for that month.

(9) Site-specific information should be used to determine retention capacity and land application rates. All site-specific information used must be documented in the pollution prevention plan.

(10) The plan shall include a description of the design standards for the retention facility embankments. The following minimum design standards are required for construction and/or modification of a retention facility.

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

(B) The embankment shall be constructed in lifts or layers no more than six inches thick and compacted at optimum moisture content.

(C) Embankment construction must be accompanied by compaction testing and certified to be in accordance with NRCS, Corps of Engineers, Bureau of Reclamation, or American Society of Civil Engineers (ASCE) design standards. Compaction tests must be certified by a licensed professional engineer.

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

(11) The plan must include a schedule for liquid waste removal. A date log indicating weekly inspection of wastewater level in the retention facility, including specific measurement of wastewater level will be kept with the plan. Retention facilities shall be equipped with either irrigation or evaporation or liquid removal systems capable of dewatering the retention facilities. Operators using pits, ponds, tanks, or lagoons for storage and treatment of storm water, manure, and process generated wastewater, including flush water waste handling systems, shall maintain in their wastewater retention facility sufficient available capacity to contain rainfall and rainfall runoff from a 25-year, 24-hour rainfall event. The operator shall restore such capacity to store all runoff from a 25-year, 24-hour rainfall event after any rainfall event or accumulation of wastes or process generated wastewater which reduces such capacity, weather permitting. Equipment capable of dewatering the wastewater retention

structures of waste and/or wastewater shall be available whenever needed to restore the capacity required to accommodate the rainfall and runoff resulting from the 25-year, 24-hour rainfall event.

(12) A permanent marker (measuring device) shall be maintained in the wastewater retention facilities to show the following: the volume required for a 25-year, 24-hour rainfall event; and the predetermined minimum treatment volume within any treatment pond. The marker shall be visible from the top of the levee. At no time shall a treatment lagoon at a CAFO that is operated under an air quality authorization be dewatered to a level below the predetermined treatment volume, except for cleanout periods or periods where the net effect of evaporation and rainfall would require the addition of fresh water to maintain the treatment volume without pumping fresh groundwater from an aquifer.

(13) (Air quality only). The primary lagoon in a multi-stage lagoon system shall be designed and operated so that the lagoon maintains a constant level at all times unless prohibited by climatic conditions. Where practical, any contaminated runoff should be routed around the primary lagoon into the secondary lagoon.

(14) A rain gauge shall be kept on site and properly maintained. A log of all measurable rainfall events shall be kept with the pollution prevention plan.

(15) Concentrated animal feeding operations constructing a new or modifying an existing wastewater retention facility shall insure that all construction and design is in accordance with

good engineering practices. Where site-specific variations are warranted, the operator must document these variations and their appropriateness to the plan. Existing facilities which have been properly maintained 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.). All retention structure 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.

(16) The operator shall include in the plan, site-specific documentation that no significant hydrologic connection exists between the contained wastewater and waters in the state. Where the operator cannot document that no significant hydrologic connection exists, the ponds, lagoons, and basins of the retention facilities must have a liner which will prevent the potential contamination of surface waters and groundwaters.

(A) The operator can document lack of hydrologic connection by either: documenting that there will be no significant leakage from the retention structure; or documenting that any leakage from the retention structure would not migrate to waters in the state. This documentation shall be certified by a NRCS engineer, licensed professional engineer, or qualified groundwater scientist and must include information on the hydraulic conductivity and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.

(B) For documentation of no significant leakage, in-situ materials must, at a minimum, meet the minimum criteria for hydraulic conductivity and thickness as described in this section. Documentation that leakage will not migrate to waters in the state must include maps showing groundwater flow paths, or that the leakage enters a confined environment. A written determination by a NRCS engineer, or a licensed professional engineer that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and waters in the state will be considered documentation that no significant hydrologic connection exists.

(17) Site-specific conditions shall be considered in the design and construction of liners. NRCS liner requirements or liners constructed and maintained in accordance with NRCS design specifications in Appendix 10d of the Agricultural Waste Management Handbook (or its current equivalent) shall be considered to prevent hydrologic connections which could result in the contamination of waters in the state. Liners for retention structures shall be constructed in accordance with good engineering practices. Where no site-specific assessment has been done by a NRCS engineer, licensed professional engineer, or qualified groundwater scientist, the liner shall be constructed to have hydraulic conductivities no greater than 1×10^{-7} cm/sec, with a thickness of 1.5 feet or greater or its equivalency in other materials.

(18) Where a liner is installed to prevent hydrologic connection the operator must maintain the liner to inhibit infiltration of wastewaters. Liners shall be protected from animals by fences or other protective devices. No trees shall be allowed to grow within the potential distance of the root zone. Any mechanical or structural damage to the liner shall be evaluated by a NRCS engineer

or a licensed professional engineer within 30 days of the damage. Documentation of liner maintenance shall be kept with the pollution prevention plan. The operator shall have a NRCS engineer, licensed professional engineer, or qualified groundwater scientist review the documentation and do a site evaluation every five years. If notified by the executive director that significant potential exists for the contamination of waters in the state or drinking water, the operator shall install a leak detection system or monitoring well(s) in accordance with that notice. Documentation of compliance with the notification must be kept with the pollution prevention plan, as well as all sampling data. In the event monitoring well(s) are required, the operator must sample each monitor 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. 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. Data from any monitoring wells must be kept on site for three years with the pollution prevention plan. 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.

(19) The pollution prevention plan shall describe measures that will be used to minimize entry of non-process wastewater into retention facilities. Such measures may include the construction of berms, embankments, or similar structures. Retention facilities shall be equipped with either irrigation or evaporation systems capable of dewatering the retention facilities, or a regular schedule of wastewater removal by contract hauler. The pollution prevention plan must include all calculations, as well as, all factors used in determining land application rates, acreage, and crops.

Land application rates must take into account the nutrient contribution of any land applied manures. If land application is utilized, the following requirements shall apply.

(A) The discharge or drainage of irrigated wastewater is prohibited where it will result in a discharge of pollutants into or adjacent to waters in the state.

(B) When wastewater is used to irrigate land application areas, the plan shall include: a description of waste handling procedures and equipment availability; the calculations and assumptions used for determining land application rates; and all nutrient analysis data. Application rates shall not exceed the nutrient uptake of the crop coverage or planned crop planting with any land application of wastewater and/or manure. Land application rates of wastewaters shall be based on the available nitrogen content, however, where annual soil sampling analysis for extractable phosphorus as described in paragraph (28)(F) of this subsection indicates a level greater than 200 parts per million (ppm) of extractable phosphorus (reported as P) in Zone 1 for a particular waste or wastewater land application field, the operator may apply wastewater to the affected application area only in accordance with the conditions established in paragraph (28)(G) of this subsection.

(C) Wastewater shall not be irrigated when the ground is frozen or saturated or during rainfall events (unless in accordance with subparagraph (E) of this paragraph).

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

(E) It shall be considered proper operation and maintenance for a facility which has been properly operated in accordance with this subchapter, and that is in danger of imminent overflow due to chronic or catastrophic rainfall, to discharge wastewaters to land application sites for filtering prior to discharging to waters in the state. Only that portion of the total retention facility wastewater volume necessary to prevent overflow due to chronic or catastrophic rainfall shall be land applied for filtering prior to discharging to waters in the state. Monitoring and reporting requirements for such discharges shall be consistent with §321.42 of this title (relating to Monitoring and Reporting Requirements).

(F) Facilities including ponds, pipes, ditches, pumps, and diversion and irrigation equipment shall be maintained to insure ability to fully comply with the terms of this subchapter and the pollution prevention plan.

(G) Adequate equipment or land application area shall be available for removal of such waste and wastewater as required to maintain the retention capacity of the facility for compliance with this subchapter.

(H) Where land application sites are isolated from surface waters and groundwaters and no potential exists for runoff to reach any waters in the state, application rates may exceed nutrient crop uptake rates only upon written approval of the executive director. No land application under this subsection shall cause or contribute to a violation of water quality standards or create a nuisance.

(I) The pollution prevention plan shall include the following information:

(i) a site map showing the location of any land application areas, either on-site or off-site which are owned, operated, or under the control of the facility owner or operator which will be utilized for land application of waste or wastewater;

(ii) the location and description of the major soil types within the identified land application areas;

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

(iv) predicted yield goals based on the major soil types within the identified land application areas;

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

(vi) a detailed description of the type of equipment and method of application to be used in applying the waste or wastewater; and

(vii) projected rates and timing of application of the manure and wastewater as well as other sources of nutrients that will be applied to the land application areas.

(J) The owner or operator shall maintain on-site and update records of all waste and wastewater either utilized at the facility or removed from the facility.

(i) For facilities where waste or wastewater is applied on property owned, operated, or controlled by the owner or operator, such records shall include the following information: date of waste or wastewater application; location of the specific application site and the number of acres utilized during each application event; acreage of each individual crop on which waste or wastewater is applied; number of dry tons, percent nitrogen based on a dry basis, and the percent moisture content of the manure; and actual annual yield of each harvested crop.

(ii) Where waste or wastewater is removed from the facility, records must be maintained in accordance with paragraph (23) of this subsection.

(20) Solids shall be removed in accordance with a predetermined schedule for cleanout of all treatment lagoons to prevent the accumulation of solids from exceeding 50% of the original treatment volume. Removal of solids shall be conducted during favorable wind conditions that carry

odors away from nearby receptors and the operator shall notify the regional office of the commission as soon as the lagoon cleaning is scheduled, but not less than ten days prior to cleaning, and verification shall be reported to the same regional office within five days after the cleaning has been completed. At no time shall emissions from any activity create a nuisance. 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.

(21) (Manure and pond solids handling and land application). Storage and land application of manure shall not cause a discharge of pollutants to waters in the state, cause a water quality violation in waters in the state, or cause a nuisance condition. At all times, sufficient volume shall be maintained within the control facility to accommodate manure, other solids, wastewaters, and contaminated storm water (rainwater runoff) from the concentrated animal feeding areas.

(22) Where the operator decides to land apply manures or pond solids, the plan shall include: a description of waste handling procedures and equipment availability; the calculations and assumptions used for determining land application rates; and all nutrient analysis data. Land application rates of wastes shall be based on the available nitrogen content of the solid waste, except however, where annual soil sampling analysis for extractable phosphorus as described in paragraph (28)(F) of this subsection indicates a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular waste or wastewater land application field, the operator may apply manure or pond solids to the affected application area only in accordance with the conditions established in paragraph (28)(G) of this subsection.

(23) If manure is sold or given to other persons for off-site land application or disposal, the operator must maintain a log of: date of removal from the CAFO; name of hauler; and amount, in wet tons, dry tons, or cubic yards, of waste removed from the CAFO. (Incidental amounts, given away by the pick-up truck 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.

(24) The procedures documented in the pollution prevention plan must ensure that the handling and land application of wastes as defined in §321.32 of this title (relating to Definitions) comply with the following requirements.

(A) Manure storage capacity based upon manure and waste production and land availability shall be provided. Storage and/or surface disposal of manure in the 100-year flood plain, near water courses or recharge feature is prohibited unless protected by berms or other structures. The land application of wastes at agronomic rates shall not be considered surface disposal in this case and is not prohibited.

(B) 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.

(C) Waste shall not be applied to land when the ground is frozen or saturated or during rainfall events.

(D) Manure shall be uniformly applied to suitable land at appropriate times and at agronomic rates. Discharge (runoff) of waste from the application site is prohibited. Timing and rate of applications shall be in response to crop needs, assuming usual nutrient losses, expected precipitation, and soil conditions.

(E) All necessary practices to minimize waste manure transport to waters in the state shall be utilized and documented to the plan.

(F) Edge-of-field, grassed strips shall be used to separate water courses from runoff carrying eroded soil and manure particles. Land subject to excessive erosion shall be avoided.

(G) Where land application sites are isolated from surface waters and no potential exists for runoff to reach waters in the state, application rates may exceed nutrient crop uptake rates only upon written approval by the executive director. No land application under this subchapter shall cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create an nuisance condition.

(H) Nighttime application of liquid or solid waste shall be allowed only in areas with no occupied residence(s) within 0.25 mile from the outer boundary of the actual area

receiving waste application. In areas with an occupied residence within 0.25 mile from the outer boundary of the actual area receiving waste application, 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.

(I) Accumulations of solids on concrete cow lanes at dairies and concrete swine pens, without slotted floors, shall be scraped or flushed at least once per week or in accordance with proper design and maintenance of the facility. Farrowing pens at swine facilities which are not scraped or flushed once per week shall be scraped/flushed after each group of sows have been removed from the facility.

(J) Buildings designed with mechanical flush/scrape systems shall be flushed/scraped at least once per week or as often as necessary to maintain the design efficiency. This provision would include, but would not be limited to, swine and caged poultry operations.

(K) Earthen pens shall be designed and maintained to ensure good drainage and to prevent ponding.

(L) Facilities that utilize a solid settling basin(s) shall remove solids from the basin as often as necessary to maintain the design efficiency.

(25) The plan shall include an appropriate schedule for preventative maintenance.

Operators will provide routine maintenance to their control facilities in accordance with a schedule and plan of operation to ensure compliance with this subchapter. The operator shall keep a maintenance log documenting that preventative maintenance was done. A preventive maintenance program shall involve inspection and maintenance of all runoff management devices (mechanical separators, catch basins) as well as inspecting and testing facility equipment and containment structures 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.

(26) The plan shall identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion. Where these areas have the potential to contribute pollutants to waters in the state the pollution prevention plan shall identify measures used to limit erosion and pollutant runoff.

(27) The operator shall document to the pollution prevention plan as soon as possible, any planned physical alterations or additions to the permitted facility. The operator must insure that any change or facility expansion will not result in a discharge in violation of the provisions of this subchapter or will require an amendment to an existing authorization in force at the time of modification.

(28) Prior to commencing wastewater irrigation or waste application on land owned or operated by the operator, and annually thereafter, the operator shall collect and analyze representative soil samples of the wastewater and waste application sites according to the following procedures.

(A) Sampling procedures shall employ accepted techniques of soil science for obtaining representative and analytical results.

(B) Samples should be taken within the same 45-day time frame each year.

(C) Obtain one composite sample for each soil depth zone per land management unit and per uniform (soils with the same characteristics and texture) soil type within the land management unit. For the purposes of this subchapter, a land management unit shall be considered to be an area 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.

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

(i) Zone 1: 0 - 6 inches for land application areas where the waste is incorporated directly into the soil or 0 - 2 inches for land application areas where the waste is not incorporated into the soil; if a 0 - 2 inch sample is required under this subsection, then an additional

sample from the 2 - 6 inch soil depth zone shall be obtained in accordance with the provisions of this section, and

(ii) Zone 2: 6 - 24 inches.

(E) 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.

(F) Chemical/nutrient parameters and analytical procedures for laboratory analysis of soil samples from wastewater and waste application sites shall include the following:

(i) nitrate reported as nitrogen in ppm;

(ii) phosphorus (extractable, ppm) - Texas Agricultural Extension Service Soil Testing Laboratory - TAMU extractant or Mehlich III;

(iii) potassium (extractable, ppm);

(iv) sodium (extractable, ppm);

(v) magnesium (extractable, ppm);

(vi) calcium (extractable, ppm);

(vii) soluble salts/electrical conductivity (dS/m) - determined from
extract of 2:1 (v/v) water/soil mixture; and

(viii) soil water pH.

(G) Except as provided under §321.49 of this title (relating to Dairy Waste Application Field Soil Sampling and Testing), when results of the annual soil analysis for extractable phosphorus in subparagraph (F) of this paragraph indicate a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular waste or wastewater land application field or if ordered by the commission to do so in order to protect the quality of waters in the state, then the operator shall not apply any waste or wastewater to the affected area unless the waste or wastewater application is implemented in accordance with a detailed nutrient utilization plan developed 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 American Society of Agronomy (ASA), after approval by the executive director based on a determination by the executive director that another person or entity identified in this subparagraph cannot develop the plan in a timely manner. The executive director will issue technical guidance to assist in the development of complete and effective nutrient utilization plans. No land application under an approved nutrient utilization plan shall cause or contribute to a violation of

water quality standards or create a nuisance. Land application under the terms of the nutrient utilization plan may commence 30 days after the plan is filed with the executive director, unless prior to that time the executive director has returned the plan for failure to comply with all the requirements of this subsection. The CAFO operator shall ensure that the nutrient utilization plan, at a minimum, evaluates and addresses the following factors to assure that the beneficial use of manure is conducted in a manner that prevents phosphorus impacts to water quality:

(i) slope of application fields (as a percentage) and distance of the land application area from waters in the state;

(ii) average rainfall for the area for each month;

(iii) soil series, soil type, soil family classification, and pH values of all soils in application fields;

(iv) chemical characteristics of the waste, including total nitrogen and phosphorus;

(v) recommended rates, methods, and schedules of application of manure and wastewater for all fields;

(vi) crop types, maximum crop uptake rate, and expected yield for each crop; and

(vii) best management practices to be utilized to prevent phosphorus impacts to water quality, including any physical structures and vegetative filterstrips.

(29) The operator shall annually analyze at least one representative sample of irrigation wastewater and one representative sample of solid waste for total nitrogen, total phosphorus, and total potassium.

(30) Results of initial and annual soils, wastewater and solid waste analyses shall be maintained on-site as part of the pollution prevention plan.

(31) Operators submitting applications for renewal or expansion of existing facilities authorized under this subchapter to utilize a playa lake as a wastewater retention structure shall within ninety (90) days of the effective date of the renewal, submit a groundwater monitoring plan to the Agriculture Section, Water Quality Division of the Texas Natural Resource Conservation Commission. At a minimum, the groundwater monitoring plan shall specify procedures to annually collect a groundwater sample from each well providing water for the facility, have each sample analyzed for chlorides and nitrates, and compare those values to background values for each well.

§321.48. Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs).

(a) This section applies to new CAFOs and to CAFOs increasing the number of animals confined under an existing operation that are:

(1) feeding operations confining cattle that have been or may be used for dairy purposes, or otherwise associated with a dairy, including cows, calves, and bulls; and

(2) in a major sole-source impairment zone, as defined in §321.32 of this title (relating to Definitions).

(b) The owner or operator shall submit a permit application and obtain a new or amended individual permit prior to:

(1) constructing or operating a new CAFO, as defined in §321.32 of this title; or

(2) increasing the number of animals confined under an existing operation.

(c) Nothing in this section limits the commission's authority to include in an individual or general permit under this subchapter provisions necessary to protect a water resource in this state.

(d) Any permit to which this section applies must, at a minimum:

(1) provide for management and disposal of waste in accordance with this subchapter;

and

(2) require that 100% of the collectible manure produced by the additional animals in confinement at an expanded operation or all of the animals in confinement at a new operation must be:

(A) beneficially used outside of the watershed;

(B) disposed in landfills outside of the watershed, subject to the requirements of commission rules relating to industrial solid waste;

(C) delivered to a composting facility approved by the executive director;

(D) put to another beneficial use approved by the executive director; or

(E) applied in any of the following ways:

(i) in accordance with the requirements of §321.39 of this title (relating to Pollution Prevention Plans) and §321.40 of this title (relating to Best Management Practices) to a waste application field owned or controlled by the owner of the CAFO, if the field is not a historical waste application field, as defined in §321.32 of this title;

(ii) in accordance with the requirements of §321.39 and §321.40 of this title, to a historical waste application field that is owned or operated 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 (0 - 6 inch) depth; or

(iii) in accordance with a detailed nutrient utilization plan approved by the executive director which, at a minimum, meets the requirements of §321.39(f)(28)(G) of this title, to a historical waste application field that is owned or operated 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 (0 - 6 inch) depth.

(e) The detailed nutrient utilization plan required under subsection (d)(2)(D)(iii) of this section must be developed by:

(1) an employee of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS);

(2) a nutrient management specialist certified by the United States Department of Agriculture's NRCS;

(3) the State Soil and Water Conservation Board;

(4) the Texas Cooperative Extension;

(5) an agronomist or soil scientist on the full-time staff of an accredited university located in this state; or

(6) a professional agronomist or soil scientist certified by the American Society of Agronomy, after approval by the executive director based on a determination by the executive director that another person or entity listed in paragraphs (1) - (5) of this subsection cannot develop the plan in a timely manner.

§321.49. Dairy Waste Application Field Soil Sampling and Testing.

(a) This section applies to CAFOs that are feeding operations 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, as defined in §321.32 of this title (relating to Definitions).

(b) For new CAFOs or CAFOs increasing the number of animals, the requirements of this section must be implemented concurrently with the next required annual soil sampling date established in the pollution prevention plan.

(c) For existing CAFOs not increasing the number of animals, the requirements of this section must be implemented concurrently with the next required annual soil sampling date established in the pollution prevention plan, beginning six months after the effective date of these amended and new rules (2002).

(d) The CAFO operator shall:

(1) contract with a person described in §321.48(e) of this title (relating to Regulation of Certain Dairy Concentrated Animal Feeding Operations (CAFOs)) and approved by the executive director to collect one or more representative composite soil samples from each waste application field, including each historical waste application field, and to ensure compliance with subsection (f) of this section; and

(2) have sampling under subsection (d)(1) of this section performed in accordance with the requirements of §321.39 of this title (relating to Pollution Prevention Plans) and not less often than once every 12 months, in accordance with the procedures in §321.39(f)(28)(A) - (D) of this title.

(e) The CAFO operator shall ensure that each sample collected under subsection (d) of this section is tested in accordance with the applicable requirements of §321.39(f)(28)(A) - (F) of this title and is tested for any other nutrient designated by the executive director.

(f) The CAFO operator shall ensure that the analytical results from the testing performed under subsection (e) of this section are submitted to the executive director and that a copy is submitted to the appropriate commission regional office and the operator of the CAFO within 60 days of the sampling.

(g) If the samples tested under subsection (e) of this section show a phosphorus level in the soil of more than 500 parts per million (ppm) in Zone 1 (0 - 6 inch) depth, the operator shall file with the executive director a new or amended nutrient utilization plan with a phosphorus reduction component that is certified as acceptable by a person described in §321.48(e) of this title.

(h) If the samples tested under subsection (e) of this section show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm in Zone 1 (0 - 6 inch) depth, the operator shall:

(1) file with the executive director a new or amended nutrient utilization plan with a phosphorus reduction component that is certified as acceptable by a person described in §321.48(e) of this title; or

(2) show that the level is supported by a nutrient utilization plan certified as acceptable by a person described under §321.48(e) of this title.

(i) If the owner or operator of a waste application field is required by this section to have a nutrient utilization plan with a phosphorus reduction component, 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 (0 - 6 inch) 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.